Chapter 2 - Alternatives, Including the Proposed Action

Introduction

This chapter describes and compares the alternatives considered for the Commercial Pack Station Permit Reissuance for the Sierra National Forest and Trail Management Plan for the Dinkey Lakes Wilderness. It describes three alternatives considered in detail and those eliminated from detailed study.

2.1 Process Used to Develop the Alternatives

The proposed action was developed in response to applications for renewal of special use permits by commercial packers on the Sierra National Forest. The Forest Service assessed the existing conditions in the analysis area. Specific conditions that were assessed included commercial pack stock use, the activities and the resource conditions at the pack stations, on trails, and at campsites, and commercial stock grazing areas not already analyzed in the 2005 Pack Stock Management EIS. The interdisciplinary team identified changes needed to meet current management direction, standards and guidelines and applicable laws and policies. The interdisciplinary team worked with the District Rangers from the Sierra National Forest to identify actions to include in the proposed action and proposed standards considered necessary to manage commercial pack stock.

Alternatives to the proposed action were developed to respond to the issues raised during the public scoping process (see Chapter 1 – Public Involvement). Given the scope of the analysis as framed within the Purpose and Need and the comments received, Alternative 3 was developed. A significant influence in developing this additional alternative was the 2005 Pack Stock Management EIS/ROD. The influence is based on the majority of use for commercial pack stock operations on the Sierra National Forest in the Ansel Adams and John Muir Wildernesses. A third alternative was developed in response to public involvement which replicates the management strategies for the Ansel Adams and John Muir Wildernesses to the Kaiser and Dinkey Lake Wildernesses, offering more seamless and uniform management direction amongst the four effected wilderness areas.

Several alternatives considered but not analyzed in detail are described at the end of this chapter. Alternatives that proposed operations that were significantly greater than the alternatives analyzed would not be consistent with the Purpose and Need and do not address significant issues. Alternatives that proposed operations below those of the PA are very close to the No Action Alternative, and are also not consistent with the Purpose and Need since they would not serve the public demand for pack stock supported recreation and a viable commercial environment for the SUP applicants. Permutations in the middle of the two action alternatives presented are not measurably different enough in environmental consequences to display.

2.2 Alternatives Considered in Detail

Summary of Alternatives considered in detail:

Alternative 1 (No Action) proposes to **not** authorize existing commercial pack stock services or facilities. Those facilities maintained for these activities would be removed from National Forest System land. In this alternative the Dinkey Lakes Wilderness direction for trails would revert to the guidelines contained in the 2001 Ansel Adams, John Muir, and Dinkey Lakes Wildernesses Plan, Appendix C. No commercial pack operation special use permits would be issued.

Alternative 2 (Proposed Action) proposes to reissue the existing permits with service and use levels to implement management direction, and achieve or maintain desired resource. Commercial stock use in the Kaiser and Dinkey Lakes Wildernesses would continue under existing trailhead quotas and service days. This alternative proposes to establish a trail management plan for the Dinkey Lakes Wilderness. This plan would designate:

- The trail system and associated trail classes
- Trail management strategies
- Operations and maintenance guidelines
- Design targets

Alternative 3 (Destination Management – revised proposed action based on public involvement**)** proposes to reissue the existing permits as in Alternative 2 with service and use levels that are intended to implement management direction and achieve or maintain desired resource conditions. Instead of service days, as in Alternative 2, destination zones and quotas are applied to use in the Dinkey Lakes Wilderness, Kaiser Wilderness and Merced Wild and Scenic River (MWSR). This alternative also proposes to establish a trail management plan for the Dinkey Lakes Wilderness.

Tables 2.1 and 2.2 summarize the comparison of alternatives. The alternatives are described in detail following the tables. Refer to the glossary for definitions of terms (Appendix A). Each element listed is a specific component of the proposed action.

Table 2.1: Summary Comparison of the Alternatives

Element	Alternative 1 No Action No Permit	Alternative 2 Proposed Action	Alternative 3 Destination Management
Services	No commercial pack services allowed	Commercial pack services provided similar to current operations.	Same as Alt. 2

Element	Alternative 1 No Action No Permit	Alternative 2 Proposed Action	Alternative 3 Destination Management
Facilities	All facilities associated with commercial pack operations removed	Existing facilities remain	Same as Alt. 2
Use in Ansel Adams and John Muir Wildernesses (includes all operations) *(See Table 2.2)*	No commercial pack use	Follows 2005 Pack Stock Management EIS	Same as Alt. 2
Use Allocations in Kaiser and Dinkey Lakes Wilderness and MWSR *(See Table 2.2)*	No commercial pack use	Based on service days, daily trailhead quotas (wilderness only), and maximum stock permitted	Based on destination quotas, stock at one time limits, and designated stock camps
Use Allocation in non-wilderness areas *(See Table 2.2)*	No commercial pack use	Based on maximum stock permitted. Overnight campsite management for YTPS identified.	Same as Alt. 2
Commercial pack stock grazing	No grazing	Suitability determined for grazing areas and stock nights allocated.	Same as Alt. 2
Noxious Weed Management	Some weed control and revegetation would be associated with removal of facilities	Requires a noxious weed management plan and use of certified weed-free feed once California program is in place.	Same as Alt. 2
Trail Suitability for commercial pack stock	No trail use	Identifies system trails and use trails where commercial stock would be prohibited in particular analysis units.	Same as Alt. 2
Dinkey Lakes Trail Plan	Use management direction in 2001 Wilderness Plan, App. C	Designates system of trails and assigns development levels.	Same as Alt. 2

Table 2.2: Use Allocation Summary

Pack Sta.	Max. Stock		Dinkey Lakes Wilderness		Kaiser Wilderness		AA/JM Wilderness[1]	Non Wilderness
	Alt 2	Alt 3	Alt 2	Alt 3	Alt 2	Alt 3	Alt 2 & Alt 3	Alt 3[2]
CPO	60	60	80 SD	22 trips 2 AET 25 SAOT	0	0	130 trips 4 AET 35 SAOT	No limits
D&F	60	60	558[3] SD 2000 Day-SD	14 trips 2 AET 25 SAOT	(558[3] SD)	40 trips 2 AET 25 SAOT	38 trips 11 AET 35 SAOT	60 SAOT NW + KW combined
HSPS	85	85	50	2 trips 0 AET 25 SAOT	0	0	254 trips 5 AET 60 SAOT	No limits
LVPS	n/a[4]	n/a	0	0	0	0	11 trips 0 AET 25 SAOT	No limits
MTR	n/a	n/a	0	0	0	0	9 trips 0 AET 35 SAOT	No limits
MPS	70	70	0	0	0	0	251 trips 10 AET 60 SAOT	No limits
YTPS	100	100	0	0	0	0	11 trips 14 AET 35 SAOT	16 trips 25 SAOT in MWSR

Abbreviations:

SD = Service Days
Day-SD = Day use Service Days
AET = All expense trips
SAOT = Stock at one time
NW = Non-wilderness
KW = Kaiser Wilderness
MWSR = Merced Wild and Scenic River

Alternative 1 – No Action

Alternative 1 proposes to not authorize existing commercial pack stock uses or facilities (as listed in Appendix B) currently under SUP. Those facilities maintained solely for the commercial pack stock operations[5]maybe analyzed in future site-specific NEPA analyses for removal from National Forest Land. In this alternative direction for trails in the

[1] Summarized from 2005 Pack Stock EIS. See Appendix C.
[2] Alternative 2 does not have any specific limits in non-wilderness areas
[3] Total service days for both Dinkey Lakes and Kaiser Wilderness combined
[4] LVPS & MTR - Facilities on private land. FS has no authority to set maximum permitted stock limits on private land.
[5] Some of the facilities may continue to be authorized in support of cattle grazing permits where needed for administration of the grazing allotment. This decision would be part of the analysis for the grazing allotment and outside the scope of this document.

Dinkey Lakes Wilderness would be guided by the Management Direction for the Ansel Adams, John Muir and Dinkey Lakes Wilderness (2001), Appendix C.

Alternative 2 – Proposed Action

Summary

This alternative represents the proposed action. It was developed based on the current land management direction, permit applications, and consistent with the purpose and need to develop management direction that allows for a business and operational climate that encourages long term and predictable stability with respect to commercial pack stock operations on the Sierra National Forest. It includes actions needed to improve resource conditions (e.g. fencing, erosion control, etc.). Any substantial changes from the current permits are listed under each individual pack station below.

This alternative proposes the use of existing facilities and providing commercial pack services and uses to the extent that they are compliant with existing law, Forest Service policy and LRMP direction. Services proposed by pack stations include full service guided trips (guide remains for the entire trip), dunnage trips (transport of material and supplies), spot trips (transport of people and supplies), day rides, and additional services as listed in the individual pack station descriptions below.

Overall operations would be regulated by the maximum number of stock allowed for the pack station with limitations where needed to avoid or mitigate resource concerns.

Services within the Kaiser and Dinkey Lakes Wilderness would be regulated by service days and the maximum permitted number of stock for the operation. In addition, current daily trailhead quotas, which are imposed on all wilderness visitors, would remain in effect for commercial pack stock.

Operations within the Ansel Adams and John Muir Wildernesses would be guided by the 2005 Pack Stock Management Plan.

Grazing by commercial pack stock would be authorized and would be consistent with current standards and guidelines and site-specific meadow capability and suitability. Stock night allocations would be based on site-specific analysis of meadows.

All system trails in the Kaiser and Dinkey Lakes Wildernesses and non-wilderness areas would be open to commercial stock use unless specifically prohibited. All non-system trails in the Kaiser and Dinkey Lakes Wildernesses and the non-wilderness areas are specifically approved (provided environmental protection measures) or prohibited based on resource concerns. Cross-country travel would be allowed in these areas where there is no discernable trail tread.

The Dinkey Lakes Wilderness Trail Management Plan proposes

- The trail system and associated trail classes
- Trail management strategies
- Operations and maintenance guidelines
- Design targets

Direction Common to All Pack Stations

This section identifies the management direction that would be common to all pack stations (alternative 2 within the scope of this EIS). It is followed by the management direction that would be specific to each of the proponents requesting special use authorization. It is important to note that all special use authorizations define standard terms and conditions in a SUP. An example of the typical SUP template and the clauses set by national Forest Service policy is included in Appendix E. This example includes standard clauses that would be required for all permit holders to follow Federal, State and local law and ordinances. The SUPs issued under this alternative would include the appropriate standard clauses and be appended upon issuance to include the specific management requirements shown below.

General Direction Common to All Pack Stations

Listed below is management direction common to all pack stations:

- Each pack station would have a Historic Property Management Plan (HPMP). The HPMP will spell out what the operators have to do to protect historic properties throughout their operating areas. These requirements will be included as a permit condition. They will be developed by the Forest Service and reviewed by the State Historic Preservation Officers of CA and NV as appropriate, and the Advisory Council on Historic Preservation. Input will be accepted from operators and other parties who indicate interest in the HPMP.
- Each pack station would comply with applicable Best Management Practices (BMPs) described in section 3.2.1 (see Table 3.28). Routine monitoring of BMP compliance would be included in permit administration. In addition, specific actions that have been identified as necessary for BMP compliance are listed in Pack Station Specific Direction, below, and discussed in section 3.2.1. Implementation of these specific actions would be monitored through permit administration, and effectiveness monitoring is included in the project Monitoring Plan.
- Loose herding is prohibited on hiking/stock trails within wilderness except for the purpose of safety. (LRMP S&G #352)

Services Authorized Common to All Pack Stations

Services that would be authorized for each operation are listed below under "Direction Specific to Pack Stations". Use within Yosemite National Park and Sequoia/Kings Canyon National Park would be authorized and managed by the National Park Service.

Facilities Common to All Pack Stations

Use of existing facilities is proposed for authorization and is listed in Appendix B. Proposed new facilities are identified below under "Direction Specific to Pack Stations". Construction of new facilities would be analyzed under future site-specific NEPA analyses and decisions.

Ansel Adams and John Muir Wildernesses Common to All Pack Stations

Operations (including grazing, overnight use, day use, etc.) in the Ansel Adams and John Muir Wildernesses would be directed by management prescriptions in the 2005 Pack Stock Management EIS. Pertinent management direction is summarized in Appendix C.

Use Allocations – Dinkey Lakes and Kaiser Wildernesses and Non-wilderness Areas Common to All Pack Stations

Day Rides

Day rides are controlled by the number of stock an operator is allocated. Where there are resource concerns or potential or known user conflicts, specific restrictions or limitations are listed under the specific pack station. Day use within the Ansel Adams and John Muir Wilderness is directed by the 2005 Pack Stock Management EIS (see Appendix C).

Overnight Use

Overnight use would be controlled by annual service days and the daily trailhead quotas. There would be no limits on overnight use in non-wilderness areas unless site specifically limited for resource protection.

Quota

Commercial pack station operations in the Kaiser and Dinkey Lakes Wildernesses would continue to be subject to the daily trailhead quotas. For the Dinkey Lakes Wilderness the quotas and management direction were revised in the 2001 Wilderness Plan. For both wildernesses the quotas are for all users and there are no separate quotas for the commercial pack stations.

Commercial Pack Stock Grazing Management Common to All Pack Stations

For the Dinkey Lakes and Kaiser Wildernesses, and suitable lands outside the wilderness, grazing would be managed by authorizing grazing for individual meadows. Grazing would only be allowed within these identified areas. Critical areas would be protected from grazing impacts. Monitoring of authorized grazing activities would occur at selected meadows and pastures within the planning area based on standards and guidelines

incorporated from the 2001 Wilderness Plan for the Ansel Adams, John Muir and Dinkey Lakes Wildernesses, and the 2004 Sierra Nevada Forest Plan Amendment. These standards and guidelines for grazing are based on indicators of rangeland health designed to protect resource values such as productive soils, desired vegetation and high quality water, wildlife and fisheries habitat.

The grazing suitability determinations are detailed in Table 2.21 and 2.22 at the end of this chapter. Any additional meadows that are not listed in Table 2.21 and 2.22 must be specifically requested by the operator and must have a grazing suitability assessment before they are utilized.

No stock entry or use would be allowed in areas identified as critical or unsuitable based on monitoring. The stock user would manage stock to avoid stock entry. Operators proposing to use meadows with identified critical areas would describe the techniques they plan to use to avoid entry or mitigate impacts. This would be approved in the annual operating plans and monitored for compliance.

An overall estimate of stock nights is assigned to each site within the analysis units. The estimated stock nights are intended as a pre-season trip-planning guide to be used during annual operating plan development. Operators would not be allowed to schedule itineraries that exceed stocking rates. Specific allocations and grazing terms and conditions would be approved in the annual operating plan.

Where more than one operator desires to graze an area, each affected operator would submit a grazing request proposal each year prior to the season. The appropriate Authorizing Officers would consider the requests and allocate the available grazing based on the current estimate of stock nights, type of trip, primary operating areas, history of use or non-use, and destination quotas. Resultant allocations would be documented in the annual operating plans. Operators would also be required to provide timely detailed grazing reports to ensure actual use conforms to requested use.

Noxious Weed Prevention and Management Common to All Pack Stations

Within 2 years of permit issuance, the permittee would prepare, in cooperation with the Forest Service, a noxious and invasive non-native weed plan for the authorized permit area that would be included as part of the annual operating plan. The Forest Service would approve the plan and would assist the permittee in developing the specific list of relevant weeds, based on weeds identified as Noxious by the State of California (CDFA, 2006), or by the California Invasive Plant Council (Cal-IPC, 2006). The plan would detail the measures for preventing, reporting, controlling and monitoring weeds that would be taken by the permittee, employees, contractors, and subcontractors. These measures may include equipment cleaning and use of weed-free materials (soil, gravel, straw, and mulch), and may be drawn from the USDA Forest Service Guide to Noxious Weed Prevention Practices (USDA, 2001). Any control methods involving major ground disturbance or chemicals would be subject to a separate NEPA analysis in the future.

None of the known infestations in the project area currently requires chemical treatment, with the exception of the hoary cress infestation at the CPO Dinkey Creek Site, which is covered under the Kings River Project EIS.

Certified weed free forage is recommended for feeding stock, and if certified feed is not widely available, operators are to make every effort to minimize the likelihood of weed introduction via feed. When the California certification program for weed free hay and straw is operational and certified products become available, certified hay and straw will be required for all Forest Service permittees, including the pack station permittees.

These measures are in addition to the specific weed control measures required in the pack station-specific direction, based on findings from weed surveys completed for this analysis, described in Chapter 3.

Trail Suitability Common to All Pack Stations

Ansel Adams and John Muir Wildernesses
Commercial stock would be required to follow guidelines set by the 2005 Pack Stock Management EIS.

Kaiser Wilderness, Dinkey Lakes Wilderness and Non-wilderness Areas of the Sierra National Forest

System Trail Management
All system trails in the Kaiser Wilderness and non-wilderness areas of the Sierra National Forest would be open to commercial stock use. System trails within the Dinkey Lakes Wilderness that are prohibited to use are identified (Table 2.15). Some non-wilderness system trails with specific resource concerns are listed in Table 2.16. These trails would require resource monitoring as identified in the monitoring plan which is documented in the Record of Decision and will be carried forward to the Annual Operating Plans (AOPs).

Established Use Trail Management
Established use trails (listed in Table 2.15) were analyzed by an interdisciplinary team during the field surveys for this EIS and would be monitored to ensure that the resource condition are consistent with management direction and standards and guidelines. If the use trail is found not to meet standards and guidelines or if incidental physical treatments (e.g. minor repair) cannot mitigate identified resource concerns, use would be reduced, suspended, or terminated.

The 2001 Wilderness Plan requires that all commercial use off existing system trails be approved by the Forest Service within the Dinkey Lakes Wilderness. Alternative 2 implements this guidance and designates the use trails appropriate for use by commercial pack stock in the Trail Management Plan (see below) . Trails for use by commercial pack stock are listed in Table 2.17. Use trails prohibited to commercial stock use are listed in Table 2.15.

Cross-country travel by commercial stock would be permitted where there is no discernable tread and continued use does not create a new use trail.

Dinkey Lakes Wilderness Trail Management Plan

The Dinkey Lakes Trail Management Plan proposes a designated system of trails and maintenance levels within the Dinkey Lakes Wilderness (see Table 2.17). The following requirements would be applied:

- Maintain an inventory of system trails to assigned trail classes (Table 2.18 shows the Trail Management Strategy definitions).
- Maintain system trails to meet management objectives for protection of wilderness character.
- Consider the recreation categories from the 2001 Wilderness Plan for the areas that a trail accesses and adjust trail maintenance levels to match the three recreation categories.
- Review trail classes when monitoring indicates inconsistency with management direction in order to ensure that trail management objectives are consistent with area management objectives.
- Do not upgrade any trails from Trail Class 1 and 2 solely for the purpose of facilitating stock use.
- Do not construct new trails. Trails included on previous system trail inventories that have visible and continuous tread may be added to the system, so long as the addition does not require new trail construction.
- Do not add use trails to the system, or conduct major reconstruction to trails on the Forest Trail System solely for the purpose of providing improved or easier access by commercial pack stock to an area. Add use trails to the system only when there is an overriding benefit to the protection of the wilderness resource.
- Consider removing trails from the system when concerns are identified, such as limited or no use, catastrophic natural events, unmitigable resource impacts, change from an original need (i.e. unneeded mining road/trail), or others. Evaluate the need for physical closure or allow natural recovery, depending on the expected resource impacts.
- When maintaining, repairing, or reconstructing trails, consider management strategies, design targets, and operations and maintenance guidelines by trail class. (See Tables 2.18, 2.19 and 2.20). Variations from these guidelines may occur due to circumstances unique to each trail. Specific time frames for inspection and maintenance frequency would be outlined in a trails maintenance plan, which is outside of the scope of this NEPA decision.

Routine Maintenance

Routine maintenance would be, dependent upon funding or other available maintenance resources (e.g. volunteers groups and programs). Routine maintenance includes cleaning and repairing drainage structures (i.e. water bars, rolling dips), berm removal etc; clearing the trail tread of obstacles such as rock, slough, trees, brush, etc; clearing obstacles from

the trail tread to target width and grade; blocking and naturalizing multiple trails or shortcuts, and incidental replacement or repair of trail structures such as steps, walls, causeway, etc. Specific time frames for inspection and maintenance frequency would be outlined in a trails maintenance plan, which is outside of the scope of this NEPA decision.

Reconstruction Guidelines
Repair and reconstruction projects would be prioritized using the following considerations:

- Trail Classes and Recreation Categories.
- Trails where the location or deteriorated condition is causing substantial resource impacts to wilderness character i.e. riparian areas; watersheds; threatened, endangered or sensitive species; or significant cultural resources).
- Trails which pose health and safety problems inconsistent with the designated trail class.
- Trails with deteriorated conditions that substantially hinder the intended use or purpose, or would likely lead to this condition within the short-term (<5 years).
- Primary trails where use is relatively high. Generally repairs of short spurs associated with the primary trail would also be integrated into projects when conducting major reconstruction.

System Trail Inventory and Development Level
The proposed Dinkey Lakes Wilderness system of trails and development levels are based on analysis of current and anticipated use, resource impacts, and trail maintenance considerations. Destination recreation categories and commercial stock quotas are considered to ensure that trail management objectives are aligned with area management objectives.

The 2001 Wilderness Plan provides direction to identify trails that are not suitable for commercial stock as NRFS. This alternative redefines the term NRFS from the 2001 Wilderness Plan and replaces NRFS with the term "Not Suitable for Commercial Stock" (NSCS). In this alternative, trails designated as NSCS would be closed to commercial stock.

This alternative would redefine the term "Not Recommended for Stock" (NRFS) from the 2001 Wilderness Plan. Under this new definition NRFS would apply to trail segments with unique conditions that the general public and commercial stock users should be aware of and fully consider when using stock on that trail. Trails identified as NRFS in this alternative are open to all stock users with appropriate caution.

The summary of Dinkey Lakes Trail Plan is displayed in Table 3.15.

In this alternative there are 1.4 miles of trail designated as NRFS in the Dinkey Lakes Wilderness. The criteria for identifying a trail as NRFS include:

- Conditions present which could be especially awkward or impractical to most riders or pack and saddle animals.
- Conditions or hazards which are not likely to be repaired in a stock-suitable manner.
- Obstacles or hazards that are severe, prolonged or out of character with the trail class and/or the rest of the trail.
- Consistently awkward conditions which may require frequent or continuous dismounting and leading of animals.

Pack Station Specific Direction

This section describes the proposed services, uses, and facilities unique to each pack station operation. Current authorizations can be found in Appendix B.

1. Clyde Pack Outfitters (CPO)

Proposed Services and Operating Area

The operating area is within these analysis units[6]: COO, DIL, HEL, NEL, DFC, WIS, TUL and the John Muir Wilderness.

CPO would offer pack stock supported overnight use including full service, spot, and dunnage in the Dinkey Lakes and John Muir Wildernesses. They would offer 1 hour, 2 hour, ½ day and full day rides outside the wilderness in the Dinkey Creek area. The facilities consist of one headquarters in TUL, three spike stations, and a day ride station. (See Appendix B for detailed list of facilities)

Dinkey Creek Station would be a departure and arrival point for day rides (1 hour, 2 hour, ½ day, and full day rides). All day rides would be along system trails, use trails and system roads in the vicinity of the Station.

Stock are trucked to and from the base facilities each season.

Proposed Use Allocation

- Maximum of 60 horses and mules.
- Pack stock supported overnight use in Dinkey Wilderness = 80 service days
- Operations in the John Muir Wilderness would be guided by the management direction in the 2005 Pack Stock Management EIS

Proposed New Service, Facility, or Environmental Protection Measures

At Glen Meadow (Family Camp Meadow), (DFC) non-wilderness:

- Protect the moss species, *Meesia triquetra (a Forest Service sensitive species)* and its fen habitat in the northern finger of the meadow (e.g. by

[6] Refer to Chapter 1: Table 1.1, and maps for name and location of analysis units.

building an exclosure if necessary). If needed, the permit will be issued contingent upon an approved protection plan provided by the permittee.
- Avoid traveling through the lens-podded hoary cress (*Cardaria chalepensis* - a State B-rated noxious weed) infestation near the station along Dinkey Creek Road.
- Avoid traveling through the isolated moist meadow at the Woodchuck Spike Station (WIS) (BMP 7-3, Protection of Wetlands).

2. D&F Pack Station (D&F)

Proposed Services and Operating Area

The operating area is within these analysis units: KAI, HNE, HNW, COO, DIL, HEL, NEL, EDI, CHQ, FLO and the Ansel Adams and John Muir Wildernesses. D&F would offer pack stock supported overnight use including full service, spot and dunnage services in the Ansel Adams, John Muir, Dinkey Lakes, and Kaiser Wildernesses as well as Kings Canyon National Park. They would also offer 1 hour, 2 hour, ½ day and all day ride services both within the Kaiser Wilderness and outside the wilderness. The day ride services would be from the headquarters to and along Huntington Lake, and north of the headquarters. Their operating facilities consist of a headquarters at Huntington Lake and two spike stations at Badger Flat and Edison Lake. (See Appendix B for detailed list of facilities)

Stock are trucked to and from the pack station each season.

Proposed Use Allocation

- Maximum of 60 horses and mules.
- Day ride use in Kaiser Wilderness = 2000 service days
- Pack stock supported overnight use in Dinkey & Kaiser Wildernesses = 558 service days
- Operations in the Ansel Adams and John Muir Wildernesses would be guided by the management direction in the 2005 Pack Stock Management EIS.

Proposed New Service, Facility, or Environmental Protection Measures

- Apply appropriate erosion control measures at the D&F Main Pack Station – Base Camp (also called Deer Creek Headquarters) and Badger Flat spike station (HNE) to prevent sediment and manure from reaching adjacent streams and meadows (BMP 2-28 Surface Erosion Control at Facility Sites, BMP 4-9 Protection of Water Quality within Developed and Dispersed Recreation Sites). Any seed or mulch would be pre-approved by the Forest Service, and must adhere to the Region 5 Native Plant Policy (FSH 2609.25 Chapter 50).
- Remove the foxglove (*Digitalis purpurea*) that is being cultivated at the Deer Creek Headquarters office (this is an invasive non-native plant). The

Forest Service would remove the foxglove infestation along the nearby stream.

- Authorize stock use within ¼ mile of Huntington Lake on trail 25E43.
- Authorize use for spot and dunnage trips to drop clients off within ¼ mile of Walling Lake in the Kaiser Wilderness when access trail (KAI02) is repaired.
- Authorize stock access within ¼ mile of Jewell and Bill Lakes in the Kaiser Wilderness for spot and dunnage trips to drop clients off only.

Two hour loop, Kaiser Wilderness/non-wilderness

- On the 26E64 section of the two-hour loop trail restrict use to primary trail and prohibit use on parallel trails.

3. High Sierra Pack Station (HSPS)

Proposed Services and Operating Area

The operating area is within these analysis units: EDI, CHQ, FLO, COO, DIL, HEL, NEL and the Ansel Adams and John Muir Wildernesses.

HSPS would offer pack stock supported overnight use including full service, spot and dunnage services in the Ansel Adams, John Muir, Dinkey Lakes Wildernesses and Kings Canyon National Park. They would also offer 1 hour, 2 hour, ½ day and all day ride services both within the John Muir and Ansel Adams Wildernesses and outside the wilderness. The day rides outside the wilderness would occur west of Edison Lake and loop into the wilderness and back out to their station and along the south portion of Edison Lake down to Mono Creek and on system trails back to their station. Their operating facilities consist of a headquarters at Edison Lake and one spike station at Florence Lake. (See Appendix B for a detailed list of facilities)

At the beginning of each season stock are herded from Badger Flat to the pack station headquarters using existing trail (27E21), stock drive (Mono Creek Stock Drive) and the Kaiser Pass road (FR80). At the end of the season stock are herded back to Badger Flat, where they are trucked out.

Proposed Use Allocation

- Maximum of 85 horses and mules.
- Pack stock supported overnight use in Dinkey Wildernesses = 50 service days
- Operations in the Ansel Adams and John Muir Wildernesses would be guided by the management direction in the 2005 Pack Stock Management EIS.

Proposed New Service, Facility, or Environmental Protection Measures

- Manually remove the common mullein (*Verbascum thapsus,* a non-native weed) infestation at the Florence Lake Spike Station annually until eradicated.

- At the Florence Lake spike station (FLO), move the hitching rail away from the stream, to the north side of the loading area (BMP 4-9 Protection of Water Quality within Developed and Dispersed Recreation Sites).
- Authorize the existing water systems at the main pack station near Edison Lake (EDI) and at the spike station at Florence Lake (FLO).

4. Lost Valley Pack Station (LVPS)

Proposed Services and Operating Area
The operating area is within these analysis units: FLO and the John Muir Wilderness.

Lost Valley would offer guided day hikes and pack stock supported overnight use including full service, spot and dunnage services in the John Muir Wilderness and Kings Canyon National Park. The operation consists of a headquarters located at Florence Lake with their remaining facilities located on their private property in Blayney Meadow. (See Appendix B for detailed list of facilities).

Stock are trucked to and from Florence Lake each season. They are led (not loose herded) from Florence Lake to the private facilities at Blayney Meadow via existing trails.

Proposed Use Allocation

- Maximum permitted stock is not applicable to LVPS since base operations are on private land.
- Operations in the John Muir Wilderness would be guided by the management direction in the 2005 Pack Stock Management EIS.

Proposed New Service, Facility, or Environmental Protection Measures

None identified.

5. Muir Trail Ranch/Florence Lake Resort (MTR)

Proposed Services and Operating Area
The operating area is within these analysis units: FLO and the John Muir Wilderness.

Muir Trail Ranch would offer pack stock supported overnight use including full service, spot and dunnage services in the John Muir Wilderness and Kings Canyon National Park. They would also offer 1 hour, 2 hour, ½ day and all day ride services within the John Muir Wilderness. There are no operating facilities on National Forest land; they operate from private land near Blayney Meadows.

The owners of MTR also own and operate the Florence Lake Resort. Although no pack stock operations occur out of the Florence Lake Resort, the term SUP for the resort is up for renewal. The two permits would be combined into one under a single partnership entity. This analysis includes both the pack stock operations and Florence Lake Resort Operations. (See Appendix B for detailed list of facilities).

Stock are trucked to and from the High Sierra Ranger Station where they are then herded to Florence Lake along the Florence Lake Road each season. They are led (not loose herded) from Florence Lake to the private facilities at Blayney Meadow via existing trails.

Proposed Use Allocation

- Maximum permitted stock is not applicable to MTR since base operations are on private land.
- Operations in the John Muir Wilderness would be guided by the management direction in the 2005 Pack Stock Management EIS.

Proposed New Service, Facility, or Environmental Protection Measures

None identified.

6. Miller Meadow Inc. dba Minarets Pack Station (MPS)

Proposed Services and Operating Area

The operating area is within these analysis units: NED, CLO and the Ansel Adams Wilderness.

MPS would offer pack stock supported overnight use including full service, spot and dunnage services in the Ansel Adams Wilderness and Yosemite National Park. They would offer 1 hour, 2 hour, ½ day, all day rides and cattle drives outside the wilderness and ½ day and full day rides into the wilderness. Non-wilderness day use occurs near the Miller Meadow headquarters on use trails, system roads and trails in the general vicinity of: Miller Meadow, Clover Meadow, and various trailheads. Their operating facilities include a campsite/tent platform campground (See Appendix B for detailed list of facilities).

Stock are trucked to and from the Miller Meadow headquarters each season.

Proposed Use Allocation

- Maximum of 70 horses and mules.
- Operations in the Ansel Adams would be guided by the management direction in the 2005 Pack Stock Management EIS.

MPS Proposed New Service, Facility, or Environmental Protection Measures
Authorize MPS to utilize and maintain the Soldier Meadow (CLO) pasture and fence. Forest Service would monitor the sensitive plant, *Trifolium bolanderi*, in Soldier Meadow to determine if grazing practices should be adjusted. (See Table 2.22 & 2.23)

Modify the MPS headquarters corral (CLO) so there is a 100 foot buffer between corral and Miller Creek to prevent sediment and manure from reaching the adjacent stream (BMP 4-9 Protection of Water Quality within Developed and Dispersed Recreation Sites). Utilize non-ground disturbing construction methods to protect sensitive resources.

7. Yosemite Trails Pack Station (YTPS)

Proposed Services and Operating Area
The operating area is within these analysis units: NED and the Ansel Adams Wilderness.

YTPS would offer the following services:

- Day Ride Business: ½ hour, 1 hour, 2 hour, ½ day and all day rides; breakfast, lunch & dinner rides; pony rides; petting zoo; and cattle drives.

- Equestrian Camps & Family Camps: Lectures, Arena Work & Vaulting; ½ hour, 1 hour, 2 hour, ½ day and all day rides; breakfast, lunch & dinner rides; pony rides; petting zoo; and overnight camping.
- Non-Wilderness and National Park Pack Trips: spot, dunnage and full service trips into non-wilderness area of the Sierra National Forest and Yosemite National Park.
- Wagon Rides & Jamborees: wagon rides on Jackson Road. between the Tenaya Lodge, YTPS, and Dillon Orchard; wagon chuck wagon jamboree Bar-B-Q in conjunction with wagon rides; special needs trips on Jackson Road between YTPS and the Tenaya Lodge, (i.e. senior citizens and mentally or physically challenged).
- Sleigh Rides: sleigh rides on Jackson Road between Tenaya Lodge, YTPS and Dillon Orchard.
- Cross-Country Ski Tours: Ski Tours on Jackson Road: Overnight Ski Tours to Biledo Meadow.

YTPS use in the Ansel Adams wilderness is on less than one mile of trail to access Yosemite National Park destinations. The majority of service proposed by YTPS is in non-wilderness areas of the Sierra National Forest, on a matrix of use trails near the current Jackson Road pack station headquarters near the town of Fish Camp. (See Appendix B for detailed list of facilities).

Stock are trucked to and from the headquarters each season.

Proposed Use Allocation

- Maximum of 100 horses and mules.
- Operations in the Ansel Adams Wilderness would be guided by the management direction in the 2005 Pack Stock Management EIS.

Proposed New Service, Facility, or Environmental Protection Measures

Jackson Road headquarters (NED):

Remove common mullein from the headquarters site (especially in front of the office at the entrance from Jackson Road).

Approve subject to review and acceptance of submitted construction plans:

- Six 12'X16' above-ground buildings for staff housing built to Mariposa County code at the Jackson Rd. headquarters site.
- One above-ground building for saddle storage at the Jackson Rd. headquarters site.
- Above-ground cement pad(s) or other soil stabilizing mechanism in the saddling paddock at the Jackson Rd. headquarters site.

Do not approve a new staff building (kitchen, lounge, toilet, and utilities) on north side of Jackson Road (at the headquarters) at this time. This project can be proposed at a future date.

Mile High Headquarters and Office (NED)

Subject to review and approval of submitted construction plans approve construction of an additional headquarters site, to be known as Mile High headquarters (2 acres site), including: horse corrals, administrative office and caretaker quarters, storage barn for sleighs, horse stalls, arena, hay barn, domestic water well, septic system, underground utility lines, parking for clients, and ingress and egress roads. Remove the existing horse corral from the swale.

Camps and Trails

In addition to camps and trails identified in this document, the holder may request additional camps or use trails on an annual basis to be approved or disapproved in the Annual Operating Plan. Tables displaying camps and trails proposed can be found at the end of Chapter 2.

Designated Stock Camps

Management direction for all overnight camps is listed in Table 2.23.

Alternative 3 – Destination Management

Summary

This alternative is different than Alternative 2 in that it emphasizes managing for conditions at destinations in the Kaiser and Dinkey Lakes Wildernesses and the MWSR. This alternative was developed as a result of public involvement which identified a desire to reduce commercial packstock uses to levels that will prevent degradation of the wilderness character. This approach would be consistent with the 2005 Pack Stock Management EIS. Consequently all four of the wildernesses used by commercial pack stock on the Sierra National Forest would be managed in unison with the same methods. Management direction for areas outside wilderness is the same as Alternative 2, except where noted.

Commercial pack stock operators would be subject to a maximum number of stock permitted on the Sierra National Forest. In addition more specific limits for types of use such as wilderness would be implemented. Stock at one time caps limit temporal spikes and address overcrowding . These stock numbers were derived from an analysis of recent stock use on trails, current resource concerns, visitor capacity considerations, cumulative impacts and management objectives. Specific stock limits are listed under each pack station below.

Maximum permitted stock numbers and limits on the number of stock in the wilderness and MWSR at one time would limit the potential for overcrowding, provide temporal controls on commercial stock use and provide overall management for total amount of commercial pack stock use.

Designated Stock Camps are identified for all locations where operators may hold stock overnight within the wildernesses and MWSR. Operators would be required to use these sites.

Allowable grazing is the same as Alternative 2.

Operations in the Ansel Adams and John Muir Wildernesses are directed by the 2005 Pack Stock Management EIS.

All system trails in the Kaiser and Dinkey Lakes Wildernesses and non-wilderness areas would be open to commercial stock use unless specifically prohibited (Table 2.17). All use trails (non-system trails) in the Kaiser and Dinkey Lakes Wildernesses and the non-wilderness areas are specifically approved or prohibited. Cross country travel would be allowed in these areas where there is no discernable tread.

The Dinkey Lakes Wilderness Trail Management Plan is proposed as described in Alternative 2.

Direction Common to All Pack Stations

General Direction

Same as Alternative 2.

Services Authorized

Services offered would be the same as Alternative 2.

Facilities

Same as Alternative 2.

Ansel Adams and John Muir Wilderness

Same as Alternative 2. Operations in the John Muir Wilderness would be guided by the management direction in the 2005 Pack Stock Management EIS.

Use Allocations – Dinkey Lakes and Kaiser Wilderness and Non-wilderness Areas

Day Rides

Same as Alternative 2, except that service day allocations would be eliminated in the Kaiser Wilderness and replaced with "stock at one time" limits. Overall day rides are controlled by the number of stock an operator is allowed. Use would be reported monthly.

Overnight Use

In the wildernesses and within the MWSR, overnight use would be controlled by seasonal destination quotas, maximum stock at one time limits, and designated stock camps.

Quota

Destination quotas are the method of limiting and distributing commercial pack stock use in this alterative within the wildernesses and the MWSR. These quotas are estimates of use for commercial stock operators that meet the desired resource and experiential condition of the destination zone, considering the resource capacity of the destination. Only delineated destination zones may be used. Quotas are placed on the number and type of trips per season:

- Spot, dunnage and resupply type trips have quotas on each destination, for each operator.
- All expense and traveling type has a set number of trips for each operator.

Specific destination quotas are listed below under the appropriate operator for the Kaiser and Dinkey Lakes Wildernesses and the MWSR. Use would be reported monthly.

All locations where commercial pack operators identified current, proposed and past use were evaluated. Tally sheets (the self-reported record of commercial use) were analyzed to calculate the number of trips, people and stock use at destinations. The assessment of

capacity was determined by reviewing the level of use at each recorded destination over the last seven years (1999-2005). Three criteria were applied to determine if this level of use was the appropriate capacity for the future:

1) *Resource Condition*: The resource condition rating of the destinations as evaluated by the interdisciplinary team by assessing recreational impacts, access issues, riparian concerns, camping potential, and risk factors at destinations.
2) *Capability:* Assessment of current levels of use and sustainability of the resource at that level of use (factoring in prescribed actions such as designated sites, meadow management, use trail prohibitions, and stock number limits) and a determination of whether the destination could accept more use, or if the area was already at an appropriate level of use or needed to be reduced.
3) *Consistency with Recreation Use:* Whether that level of use is consistent with the recreation use, given considerations of other uses (overnight use by general public, other outfitters and guides, day hiking, and day riding).

The following describes how various pack station trips would be accounted for in the destination quota system:

- Only delineated destination zones may be used.
- For spot, dunnage, and resupply a trip is defined as a one-way service.
- Trips that hold stock in the backcountry overnight in conjunction with an all expense, traveling or base camp type service are considered "all expense" for the purposes of the quotas. A trip that involves services (such as a cook or camp tender and wrangler) throughout the duration of a client's trip is also considered an all expense trip even though stock is not held for the duration of the trip. This also includes continuous hire of the stock. All expense trips have a specific quota that cannot be exchanged or otherwise counted as a spot and dunnage trip. Each operator is authorized a specific number of all expense trips. All expense trips would be further regulated by the designated site requirement and allowable grazing constraints.

Destination quotas would not be adjusted (lowered) based on lack of use. They can be lowered based on future assessments of capacity or resource conditions. Quotas are designed to accommodate fluctuations at various destinations over the years. There would be no borrowing, trading or otherwise sharing the destination quota assigned to an operator.

In cases of administrative use, including approved research permits, support of functions such as search and rescue, tribal walks, the authorizing officer can allow use of areas previously unidentified as a destination. This is on a case-by-case basis, and is not considered a reoccurring use.

Stock Limits

Specific stock limits are listed under each pack station below.

Designated Stock Camps
Within the wildernesses for all pack stations and in non-wilderness areas used by YTPS (including MWSR), all overnight holding of stock by commercial operators would take place at a designated stock camp. All party members on an all expense, base camp or traveling trip must stay in a designated stock camp. These sites would be signed as stock camps.

Designated stock camps would not be located where sensitive resources (e.g., heritage, sensitive plants, etc.) may be affected. These designated camps would have identified stock holding areas, identified access into and out of the camp, and would be managed in a manner that is consistent with Best Management Practices.

Designated stock camps are listed below under the appropriate pack station authorized to use them. If a stock camp has not been identified, and an operator requests use of an area where overnight holding of stock is needed, the Authorizing Officer may approve that use consistent with management direction. If an operator plans to use camps repeatedly through the term of the permit, the camp may be approved and designed in accordance with the guidelines above.

Upon request by the operator, a designated camp may be identified as an "assigned site" as described by Forest Service policy. Assigned sites are reserved for the exclusive use of a single operator. These sites are subject to a reserved site fee (as specified in Forest Service Handbook Chapter 2709.11, Section 37.21 (h)).

Additional designated stock camps may be identified if significant resource or user conflict issues arise, based on the appropriate NEPA analysis.

Designated stock camps differ from campsites where commercial operators may drop off clients and do not hold stock overnight. Any legal campsite available for general public use may be used for spot and dunnage trips except where specifically prohibited or prescribed.

Grazing
Same as Alternative 2.

Noxious Weed Prevention and Management
Same as in Alternative 2.

Trail Suitability
Same as Alternative 2, with the addition of approved routes for commercial pack stations to designated stock camps in the Kaiser Wilderness, Dinkey Lakes Wilderness and MWSR. The precise alignment of the approved routes would be identified during the process of designating stock camps.

Dinkey Lakes Wilderness Trail Management Plan
Same as Alternative 2.

Pack Station Specific Direction

1. Clyde Pack Outfit (CPO)

Proposed Services and Operating Area

Analysis Units and Services: Same as alternative 2.

Proposed Use Allocations

Table 2.3: Destination Quotas for CPO in the Dinkey Lakes Wilderness.
No use in Kaiser and the MWSR.

Destination	Trip Quotas
Cliff Lake	8
Nelson Lake	4
Island Lake	2
2nd Dinkey Lake	2
Rock Lake	2
Unassigned*	4

* May be used at any established destination zone in the Dinkey Lakes Wilderness except for Cliff Lake

All Expense Trips into the Dinkey Lakes Wilderness: 2

Table 2.4: CPO Stock at One Time Limits

Location	Stock at One Time Limit
Ansel Adams/John Muir[7] (all use)	25
Dinkey Lakes (overnight use)	25
Pole Corral HQ Dinkey Creek Station (day use) Spike stations	60
Maximum Stock Permitted	**60**

Day use is not permitted in the Dinkey Lakes Wilderness.

Designated Stock Camps

Dinkey Lakes Wilderness: Perkins Camp, Cliff Lake, Rock Meadow

[7] Stock at One Time limits for the Ansel Adams and John Muir Wilderness are from the 2005 Pack Stock Management EIS

Proposed New Service, Facility or Environmental Protection Measures
Same as Alternative 2

2. D&F Pack Station (D&F)

Proposed Services and Operating Area

Analysis Units and Services: Same as Alternative 2

Proposed Use Allocations

Table 2.5: Destination Quotas for D&F in the Kaiser Wilderness.
No use in the MWSR.

Destination	Trip Quotas
Walling Lake	12
George Lake	8
Nellie Lake	6
Bill Lake	2
Twin Lakes (Upper & Lower)	6
Jewell Lake	2
Unassigned*	4

* May be used at any established destination zone in the Kaiser Wilderness except for Walling Lake, George Lake, Nellie Lake and Upper Twin Lake.

All Expense Trips in the Kaiser Wilderness: 2

Table 2.6: Destination Quotas for D&F in the Dinkey Lakes Wilderness.

Destination	Trip Quotas
Perkins Camp	2
South Lake	4
2nd Dinkey Lake	2
Rock Mdw.	2
Unassigned*	4

* May be used at any established destination zone in the Dinkey Lakes Wilderness except for Cliff Lake

All Expense Trips in the Dinkey Lakes Wilderness: 2

Table 2.7: D&F Stock at One Time Limits

Location	Stock at One Time Limit
Ansel Adams/John Muir (all use)	25
Kaiser Wilderness (overnight use)	25
Dinkey Lakes (all use)	25
Huntington Pack Station (outside wilderness day use & Kaiser day use)	60
Maximum Stock Permitted	**60**

Day use is not permitted in the Dinkey Lakes Wilderness.

Designated Stock Camps
Kaiser Wilderness: Nellie Lake
Dinkey Lakes Wilderness: Perkins Camp, Cliff Lake, Rock Meadow

Proposed New Service, Facility or Environmental Protection Measures
Same as Alternative 2.

3. High Sierra Pack Station (HSPS)

Proposed Services and Operating Area

Analysis Units and Services: Same as Alternative 2

Proposed Use Allocations

Table 2.8: Destination Quotas for HSPS in the Dinkey Lakes Wilderness.
No use in the Kaiser and MWSR.

Destination	Trip Quotas
Unassigned*	2

* May be used at any established destination zone in the Dinkey Lakes Wilderness except for Cliff Lake

Table 2.9: HSPS Stock at One Time Limits

Location	Stock at One Time Limit
Ansel Adams/John Muir (all use)	60
Dinkey Lakes (all use)	25
Edison Station	85
Maximum Stock Permitted	**85**

Designated Stock Camps
Dinkey Lakes Wilderness: Perkins Camp, Cliff Lake, Rock Meadow

4. Lost Valley Pack Station (LVPS)

Proposed Services and Operating Area
Analysis Units and Services: Operating area would include FLO and John Muir Wilderness.

Proposed Use Allocations
No use in the Dinkey Lakes, Kaiser Wildernesses or MWSR.

Table 2.10: LVPS Stock at One Time Limits

Location	Stock at One Time Limit
Ansel Adams/John Muir (all use)	25
Maximum Stock Permitted	**n/a***

** LVPS is located on private land. FS has no authority to set maximum permitted stock limits on private land.*

Proposed New Service, Facility or Environmental Protection Measures
Same as Alternative 2

5. Muir Trail Ranch/Florence Lake Resort (MTR)

Proposed Services and Operating Area

Analysis Units and Services: Same as Alternative 2

Proposed Use Allocations
No use in the Dinkey Lakes, Kaiser Wildernesses or MWSR.

Table 2.11: MTR Stock at One Time Limits

Location	Stock at One Time Limit
Ansel Adams/John Muir (all use)	35
Maximum Stock Permitted	**n/a***

** MTR is located on private land. FS has no authority to set maximum permitted stock limits on private land.*

Proposed New Service, Facility or Environmental Protection Measures
Same as Alternative 2

6. Minarets Pack Station (MPS)

Proposed Services and Operating Area

Analysis Units and Services**:** Same as Alternative 2

Proposed Use Allocations
No use in the Dinkey Lakes, Kaiser Wildernesses or MWSR.

Table 2.12: MPS Stock at One Time Limits

Location	Stock at One Time Limit
Ansel Adams/John Muir (all use)	60
Maximum Stock Permitted	**70**

Proposed New Service, Facility or Environmental Protection Measures
Same as Alternative 2

7. Yosemite Trails Pack Station (YTPS)

Proposed Services and Operating Area

Analysis Units and Services: Same as Alternative 2

Proposed Use Allocations
No use in the Dinkey Lakes, Kaiser Wildernesses.

Table 2.13: Destination Quotas for YTPS in the South Fork of the Merced WSR

Destination	Trip Quotas
South Fork Merced Camp	16*

* For YTPS only this quota can be used for either spot/dunnage or all expense trips. When an all expense party is taken into the MWSR it would count as two trips.

All Expense Trips into the MWSR: 8 (see note above: each all expense party is counted as two trips from the quota for the MWSR)

Table 2.14: YTPS Stock at One Time Limits

Location	Stock at One Time Limit
Ansel Adams/John Muir (all use)	25
South Fork Merced WSR	25*
Maximum Stock Permitted	**100**

* No more than 6 head of stock may be held overnight within the MWSR

Designated Stock Camps
Management direction for all designated stock camps is listed in Table 2.23.

Proposed New Service, Facility or Environmental Protection Measures
Same as Alternative 2

2.3 Alternatives Considered but Eliminated from Detailed Study

Federal agencies are required to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives may have been outside the scope of the need for the proposal, duplicative of the alternatives considered in detail, or determined to be components that would cause unnecessary environmental harm. The following four alternatives were considered but eliminated from detailed study. Summarized below are some of the concepts that were most frequently suggested and the rationale for not considering them further. Further analysis of these alternatives that were considered but dismissed is included in the project record, in the document titled "Analysis of four alternatives considered but eliminated from detailed study."

1. **Instead of issuing a 20-year resort permit to the existing pack stations, issue a shorter permit or a different type of permit. This alternative was considered but dismissed for the following reasons:**

The type (in this case Resort vs. Outfitter/Guide) and term (number of years) of the SUP have no relevance to the environmental impacts. The prescriptions and monitoring presented in this FEIS and Record of Decision (ROD) are the same for either a Resort or Outfitter/Guide permit. Whether covered by the standard clauses of a SUP (see appendix E) or included in the Annual Operating Plan, the management direction of the selected alternative as displayed in the ROD is binding. Therefore the environmental consequences depend on the management direction and not the type or term of the SUP (Forest Service Manual (FSM) 2701.1, Forest Service Handbook (FSH) 2709.11, section 10, exhibit 03, and FSH 2709.11, Ch. 10.

The Forest Service is not required to analyze alternatives that are duplicative of alternatives already considered. There are no environmental consequences associated with varying the term of the permit. A 20-year permit does not mean that no changes can occur over the 20-year period. The Annual Operating Plan (AOP) provides the mechanism to make changes in response to policy changes, conditions, and resource impacts found through monitoring. Whether covered by the standard clauses of an SUP (in Appendix E) or included in the AOP, the management direction of the selected alternative as displayed in the ROD is binding. The prescriptions and monitoring presented in the FEIS and ROD provide the basis for evaluating the annual performance of the permittees. Needed changes would be identified and acted upon.

The management direction contained in this FEIS leads to an adaptive approach. SUP clauses provide the opportunity to make changes, sometimes significant, in response to conditions and resource impacts both short and long term. There is no reason to expect that needed changes would not be identified and acted upon. Consequently, there are no environmental consequences associated with varying the term of the permit.

A short permit duration would not be consistent with the Purpose and Need "that allows for a business and operational climate that encourages long term and predictable stability". The duration of each type of SUP, as prescribed by Forest Service policy, has been developed with the nature of that industry, and current business climate taken into account so that the businesses have the chance to succeed. A successful business has a better opportunity for good customer service, which, in turn fulfills the Purpose and Need "to provide high quality, dependable packing service".

2. Reduce commercial pack stock use levels in the AA/JM Wildernesses below the levels prescribed in the 2005 AA/JM FEIS/ROD. This alternative was considered but dismissed for the following reason:

The proposed actions are consistent with the existing management direction for the Ansel Adams and John Muir Wildernesses (2005 Pack Stock Management

EIS and ROD). Alternatives that are not consistent with this current management direction are outside the scope of this EIS.

Use levels in the AA/JM Wilderness were established in the 2005 Record of Decision for the Trail and Commercial Pack Stock Management in the Ansel Adams and John Muir Wilderness FEIS (AA/JM FEIS/ROD). That document analyzed the effects of the selected alternative, two alternatives with lower stock use levels, and one alternative that allowed no commercial pack stock use in the AA/JM Wildernesses. The 2005 AA/JM FEIS provides programmatic direction but also site specific direction related to pack stations use in the two wildernesses. The ROD selected a destination management strategy that regulates use to protect resources and preserve wilderness character.

One purpose of the current proposal is to implement the 2005 AA/JM FEIS/ROD (section 1.2). An alternative that would reduce stock use in the AA/JM Wildernesses below the levels established by the 2005 decision would not meet that purpose.

For the areas outside the Ansel Adams and John Muir Wildernesses the following concepts were closely examined but eliminated from further study for the reasons stated. Some commenters suggested alternative variations that would have allocated less use than is presented in the action alternatives. The Ansel Adams and John Muir Wildernesses account for approximately 87% of the area and 77% of the overnight use for commercial pack stations on the Sierra National Forest. Within the area not covered by 2005 Pack Stock Management EIS there were limited options for creating productive alternatives that met the Purpose and Need.

For these reasons, there are only three alternatives analyzed because the purpose and need is relatively narrow. There is a need to have enough packers and trips to provide for the recreational goals and maintain a stable operational environment, while protecting the environment. Increasing operational levels above those proposed in alternatives 2 and 3 would pose the threat to the environment, and therefore be inconsistent with the Purpose and Need. Decreasing operational levels below those proposed in alternatives 2 and 3 would be close to the no action alternative and inconsistent with the goals of having sufficient amount of packstock supported recreation and a stable business environment. Developing an additional alternative that would be in the middle of increasing or decreasing proposed use would not be measurably different in environmental consequences for comparison. Therefore was not analyzed in detail.

Described below are some of the common themes that were included in the public comments but were eliminated from detailed study:

<u>Reduce the number of maximum stock permitted</u>
Varying the maximum number of stock permitted does not add any site specific or timing control and therefore does not result in any environmental benefit at a

particular location of concern. Each operator will be assigned an absolute upper limit. This maximum animal limit will reflect the capacity of the operators to hold stock at their facilities. This will contribute to the control in the action alternatives, but is not one of the driving factors.

There was no merit in developing alternatives that vary the maximum number of permitted stock with all the other more specific direction contained in the action alternatives. A number of factors contribute to this. The number of maximum stock proposed is the same as has been permitted for a number of years for each of the pack stations (see Table 3.24). The base facilities are adequate to handle this number of stock, so there is no need to reduce the number on account of the facilities. None of the applicants requested an increase in their maximum stock, so it is not part of the purpose and need and there was no reason to create an alternative that included increasing the maximum permitted stock. No issues were identified to examine increases in the maximum number of permitted stock.

3. Reduce the number of permitted pack stations and outfitter guides. This alternative was considered but dismissed for the following reasons:

Substantially reducing the number of pack stations would not meet the purpose of "providing high quality, dependable stock packing services as part of a wide range of recreational activities available in geographically distributed areas of the Sierra National Forest."

There are 2 pack stations that are located on private land and limit their operations to the John Muir Wilderness, the remaining five operate in the John Muir, Ansel Adams, in limited areas outside the Ansel Adams and John Muir Wildernesses. Spatial distribution of the 5 pack stations is what remains. The remaining pack stations provide the services in locations needed and demanded by visitors. The current pack stations are all in locations with relatively remote locations.

In the Non-wilderness analysis units, environmental concerns have not been identified that require reducing the number of pack stations. Further, the number of permits does not necessarily exert any control on the level, type and distribution of pack stock use. The action alternatives have mechanisms that control the amount, frequency, location and timing of use. The number of permits issued is not necessarily relevant. It is possible that a few permits with large allocations of use could have more impact than a larger number of permits with the restricted allocations. It is also possible that a reduced number of permits would reduce the use, and reduce the area accessed by commercial pack stock. In that case, it would not meet the purpose of "providing high quality, dependable stock packing services as part of a wide range of recreational activities available in geographically distributed areas of the Sierra National Forest."

Reducing the number of pack stations and operating areas would essentially close large blocks of the Forest to commercial pack stock use. In the course of field work and developing the alternatives for both this decision and the 2005 AA/JM FEIS, it was clear that a site specific approach to managing resource conditions

would be more effective than closing large areas. The interdisciplinary team (IDT) found no conditions that warranted large areas being closed, but did find specific sites that needed prescriptions modifying or excluding use. These specific sites are included in the action alternatives (Section 2.3), and those sites in the AA/JM Wildernesses included in Appendix C of this document.

Reduce the number of SUPs issued and/or operating areas.
Alternatives that considered fewer numbers of SUPs were also considered and eliminated from detailed study. In this situation the number of permits does not exert any control on the level, type and distribution of pack station use. The action alternatives have mechanisms to control the amount, frequency, location and timing of use. These are based on the ability of the landscape to accommodate the prescribed amount of use. It is the type, amount, timing and location of use allowed that determines the environmental consequences not the number of permits. Therefore, the number of permits issued is not relevant. There is no correlation between the number of permits and the overall use levels, since a few permits with large allocations of use could have more impact than a larger number of permits with very restricted allocations.

Reduce the operating areas
This was also considered and eliminated from detailed study. In the course of fieldwork and developing the alternatives it was clear that a site specific approach to managing resource conditions would be more effective than closing large areas. The interdisciplinary team (IDT) found no conditions that warranted large areas to be closed, but did find specific sites that needed prescriptions modifying or excluding use. These specific sites are included in the action alternatives. In addition, closing large blocks of wilderness to use by commercial stock would diminish opportunities for unconfined recreation, which is a clear element of the Purpose and Need.

Remove or relocate pack stations and pastures
Alternative 1 already analyzes the consequences of removing all of the pack stations and use of pastures. The IDT visited and evaluated all pack station facilities. There were some site specific modifications that were needed to meet resource protection objectives, and those modifications are included in both Alternative 2 and 3. Typically these modifications included such actions as moving fence lines, removing non-native plants, and preparing Historic Properties Management Plans. None of the pack stations on the Sierra National Forest are located in sensitive riparian zones and in no case did the facilities exceed the ability to mitigate the concerns identified by the IDT. All protective measures recommended by the IDT are included in both Alternatives 2 and 3.

4. Reduce the use allocations in the Dinkey Lakes and Kaiser Wildernesses and non-wilderness Forest areas. This alternative was considered but dismissed for the following reasons:

The proposed use allocations presented in the action alternatives meet the purpose and need while minimizing environmental effects. Minor reductions in use allocations would have no measurable differences in environmental impacts when compared to alternatives 2 and 3. To have major enough reductions to show reduced environmental consequences would be so close to the no action alternative that it would be redundant to include such alternatives. More importantly, to significantly reduce use in these areas would be inconsistent with the Purpose and Need because it would make operations economically not viable and significantly impair recreational access. Reduction in use does not result in a linear corresponding reduction in impact. Merely reducing commercial services to arbitrary levels below those proposed does not demonstrate a corresponding improvement to the condition of the wilderness. For example, the maximum number of trips permitted at one destination under the Preferred Alternative is twelve (Walling Lake in the Kaiser Wilderness). All other destinations have fewer trips than this. Typically twelve trips would represent six parties who are taken in and picked up (2 trips each). The difference between six parties and an alternative that analyzed half that allocation – three parties, would have no measurable environmental consequences. This is especially true in the context of the total recreational use occurring in the planning area. The basis for this rationale can be found in Chapter 3.

Significant reductions in proposed allocations would drop below the threshold where it would be practical for commercial pack stock operations to take place, therefore there is no point in a detailed analysis since the no action alternative is already presented. For the Dinkey Lakes and Kaiser Wildernesses there is no worth in analyzing an alternative that sets use somewhere between none (Alternative 1) and what is proposed in Alternatives 2 and 3. This also would not be consistent with the Purpose and Need on at least two counts. First it would result in fewer recreation opportunities and second it would not contribute to a climate that allows for predictable and long term business stability.

For areas outside the wildernesses large reductions in allocated use are too broad to be effective in correcting the site specific environmental concerns. The prescriptions proposed in Alternatives 2 and 3 have site and action specific direction that mitigates the identified environmental impacts.

Table 2.15: Proposed Use Trails Kaiser and Dinkey Lakes Wildernesses and Non-Wilderness Use Trails

Analysis Unit	Use Trail ID#	Length (miles)	Alt 2	Alt 3	Comments
Clover	CLO01	0.2	P	P	Stay on Roads 5S88, 5S07, and 4S81 to access Road 4S81B
Clover	CLO02	0.2	A	A	Periodic monitoring[1] due to resource concern
Clover	CLO03	1.2	P	P	Stay on system trails (roads) and use trail CLO05
Clover	CLO04	0.4	P	P	Parallels Miller Meadow Trail 24E26. Stay on road 5S34Y
Clover	CLO05	0.5	A	A	
Clover	CLO06	0.3	P	P	Parallels system trail
Clover	CLO07	0.3	P	P	Parallels approved use trail (CLO02)
Clover	CLO08	0.4	A	A	
Coyote	COO01	0.9	P	A	Dual access (Alt. 2), Ershim Lake accessible from system trails
Coyote	COO02	0.1	A	A	On Dusy-Ershim Road, non-wilderness
Dinkey Front Country	DFC01	1.2	A	A	Periodic monitoring due to resource concern
Dinkey Front Country	DFC02	0.5	A	A	
Dinkey Front Country	DFC03	0.3	A	A	
Dinkey Front Country	DFC04	0.3	A	A	
Dinkey Front Country	DFC05	0.3	P	P	Parallel multiple roads and approved user trails
Dinkey Front Country	DFC06	0.3	A	A	Periodic monitoring due to resource concern
Dinkey Lakes	DIL01	0.5	P	P	
Dinkey Lakes	DIL02	0.2	A	P	Periodic resource monitoring due to resource concerns (Alt. 2)
Dinkey Lakes	DIL03	0.8	A	P	Periodic resource monitoring due to resource concerns (Alt. 2)
Dinkey Lakes	DIL04	0.4	P	P	Parallels system trail, goes through wet meadow
Edison	EDI01	0.3	A	A	
Edison	EDI02	0.7	A	A	
Edison	EDI03	0.6	P	P	
Edison	EDI04	0.5	A	A	
Edison	EDI05	0.3	A	A	

Analysis Unit	Use Trail ID#	Length (miles)	Alt 2	Alt 3	Comments
Edison	EDI06	0.5	A	A	
Edison	EDI07	0.4	P	P	Parallels lower dam road
Edison	EDI08	0.6	A	A	
East Huntington	HNE01	0.6	A	A	
East Huntington	HNE02	0.2	A	A	
East Huntington	HNE03	3.0	A	A	
East Huntington	HNE04	2.1	P	P	Parallels HNE03 (consider approval if used for day ride loop)
Florence	FLO01	0.3	A	A	Used to access Jackass Meadow from HS spike station
Florence	FLO02	0.1	A	A	
Kaiser	KAI01	0.4	P	P	Parallels system trail
Kaiser	KAI02	0.7	A	A	Stock permitted w/in ¼ mile of Walling Lake when trail is repaired. Periodic monitoring due to resource concern
Nelder	NED01	0.6	A	A	Loop that follows Big Creek via Dillon orchard to pack station; along with NED02 and NED12)
Nelder	NED02	0.4	A	A	Loop that follows Big Creek via Dillon orchard to pack station; along with NED01 and NED12
Nelder	NED03	0.5	A	A	Periodic monitoring due to resource concerns
Nelder	NED05	0.7	A	A	
Nelder	NED06	0.1	A	A	
Nelder	NED07	0.3	A	A	Periodic monitoring due to resource concerns.
Nelder	NED08	0.6	A	A	
Nelder	NED09	2.3	P	P	To YNP via Buffin Mdw.
Nelder	NED10	0.2	A	A	
Nelder	NED11	1.4	P	P	N side of Big Ck
Nelder	NED12	1.1	A	A	Adjacent to N side of Big Ck
Nelder	NED13	0.7	A	A	Must access via NED17
Nelder	NED14	0.5	P	P	Loop to Big Creek from NS03
Nelder	NED15	0.6	A	A	Running N and adjacent to Rd 6S07, part of 1 hr loop. Periodic monitoring due to resource concerns
Nelder	NED16	2.2	A	A	½ ride return from YNP, W of Buffin Mdw.
Nelder	NED17	0.2	A	A	Authorized use at current low use level. If increased use occurs, re-evaluate

Analysis Unit	Use Trail ID#	Length (miles)	Alt 2	Alt 3	Comments
Nelder	NED18	1.3	A	A	
Nelder	NED19	0.8	A	A	Parallels road 6S07
Nelder	NED20	0.8	P	P	Resource concerns
Nelder	NED21	0.6	P	P	Goat Mdw transfer station to YNP (segment 2). Unable to locate trail
Nelder	NED22	0.4	N/A	A	Westerly trail from Big Ck to Pack Station
Nelder	NED23	0.4	N/A	A	
Nelder	NED24	0.6	A	A	
Nelder	NED25	1.2	A	P	Resource concerns, proximity to meadow
Nelder	NED26	0.1	N/A	P	South of Biledo Meadow. Resource concern
Nelder	NED27	0.1	P	P	Restrict use to the road prism of road 5S06 and road 5S06X
Nelder	NED28	2.3	N/A	A	Bare Is. Lake Trail junc to Rd 5S36A
Nelson	NEL01	0.8	A	A	Periodic monitoring due to resource concern
Nelson	NEL02	0.1	A	A	
Nelson	NEL03	0.1	A	A	Periodic monitoring due to resource concern
Post Corral	POC03	0.2	A	A	Wilderness section already approved in 2005 Pack Stock Management Plan

1 = frequency of use as determined in the monitoring plan documented in the Record of action Decision

N/A = not assessed in the initial proposed action

A = Approved for Use

P = Prohibited from use

Table 2.16: Non-Wilderness System Trails Requiring Specific Resource Monitoring

Analysis Unit	Trail Name	Use Trail ID#	Alt 2	Alt 3	Comments
Clover	24E01 Isberg Trail	N/A	A	A	Periodic monitoring due to resource concern.
Clover	26E01 Mammoth Trail	N/A	A	A	Periodic monitoring due to resource concern.
Clover	26E38	N/A	A	A	Periodic monitoring due to resource concern.
Clover	26E39	N/A	A	A	Periodic monitoring due to resource concern.
Clover	25E33 South Fork Trail	N/A	A	A	Periodic monitoring due to resource concern.
Clover	Stockdrive (Miller Mdw, South)	N/A	A	A	Periodic monitoring due to resource concern.
Clover	25E06 Stockdrive (Jackass Mdw. West)	N/A	A	A	Periodic monitoring due to resource concern.
Nelder	23E01 Chiquito Trail	N/A	A	A	Periodic monitoring due to resource concern. Trail would to be re-routed to protect concern.
Nelder	22E25, Segment 2	N/A	A	A	Periodic monitoring due to resource concern.
Nelder	23E02, Segment 1	N/A	A	A	Periodic monitoring due to resource concern.
Nelder	23E03	N/A	A	A	Periodic monitoring due to resource concern.
Huntington Lake East	26E35	N/A	A	A	Periodic monitoring due to resource concern.
Huntington Lake East	26E39	N/A	A	A	Periodic monitoring due to resource concern.
Huntington Lake East	24E03	N/A	A	A	Periodic monitoring due to resource concern.
Near (Huntington Lake East, Chinquapin and Edison)	Stockdrive, 27E21	N/A	A	A	Periodic monitoring due to resource concern.

Dinkey Lakes Trail Management Plan

Table 2.17: Dinkey Lakes Wilderness System Trails

This table lists the trail classes proposed for each alternative. Also shown are the trails proposed for "Not Suitable for Commercial Stock" (NSCS) and "Not Recommended For Stock" (NRFS). See the descriptions in each of the alternatives for a definition of these classifications.

Abbreviations:
N = Not listed
N/A = Not Applicable
R = Remove from system inventory

Trail Name	Trail #	AU	Recreation Category	Length	Alt 1			Alt 2			Alt 3			Beginning Termini	Ending Termini
					NSCS	NRFS	Trail Class	NSCS	NRFS	Trail Class	NSCS	NRFS	Trail Class		
Coyote Lake	26E43	DIL COO	2.3	3.12			1			2			2	Ca. Riding & Hiking Trail 24E03 (Sec. 31)	Dinkey Lakes 27E07 (@ 1st Dinkey)
Rainbow	26E45	DIL	2.3	0.37			1			1			1	Mystery Lake 27E11 (@ Swede Lake)	Rainbow Lake
Ershim Lake	26E54	COO	2	1.25			1			2			R	Ca. Riding & Hiking Trail 24E03 (Sec. 24)	Dinkey Lakes Wilderness Bdy.
Ershim Lake	25E54	COO	2	0.75			1			1			R	Dinkey Lakes Wilderness Bdy.	Ca. Riding and Hiking Trail 24E03 (Sec. 31)
Nelson Lake	27E09	NEL HEL	2	3.66			1			2			1	Helms Mdw. 27E56	Nelson Lake

Trail Name	Trail #	AU	Recreation Category	Length	Alt 1			Alt 2			Alt 3			Beginning Termini	Ending Termini
					NSCS	NRFS	Trail Class	NSCS	NRFS	Trail Class	NSCS	NRFS	Trail Class		
Hot Springs Pass	27E20	HEL	2	0.50			1			2			2	Helms Mdw. 27E56	Dinkey Lakes Wilderness Bdy.
Island Lake	27E30	DIL	2.3	0.62	N/A	X	1		X	2		X	1	Dinkey Lakes 27E07	Island Lake
East Lake	27E31	HEL	1.2	1.50			1			1			1	Helms Mdw. 27E56	East Lake
Bullfrog Lake	27E32	NEL HEL	2.3	0.50			1			2			1	Dinkey Lakes 27E07	Bullfrog Lake
Bullfrog Lake	27E32	HEL	2	1.50			1			1			1	Bullfrog Lake	Helms Mdw. 27E56
Helms Mdw.	27E56	DIL HEL	2.3	7.75			1			2			2	Dinkey Lakes 27E07 (@ Coyote Lake 26E43 jct.)	Frazier 28E33
Little Lake	27E59	NEL	2.3	0.71			1			2			1	Dinkey Lakes 27E07	Little Lake
Dogtooth	27E62	NEL	2.3	0.75			1	X	X	1	X	X	1	Dinkey Lakes 27E07	Dogtooth Peak
Mystery Lake	27E11	DIL	3	2.33			2			3			3	Dinkey Lakes 27E07 (Sec. 12)	Dinkey Lakes 27E07 (Sec. 7)
California Riding & Hiking	24E03	COO	2	6.75			3			3			3	Dinkey Lakes Wilderness Bdy. (Sec. 11)	Dinkey Lakes Wilderness Bdy. (Sec. 32)
Dinkey Lakes	27E07	DIL NEL	2.3	8.03			3			3			3	Dinkey Lake Wilderness Bdy. (Sec. 11)	Dinkey Lake Wilderness Bdy. (Sec. 26)
Tocher Lake	26E11	COO	2	0.45			N			1			N	Dinkey Lake Wilderness Bdy. (Sec. 2)	Dinkey Lake Wilderness Bdy. (Sec.35)
Perkins Cutoff	26E42	COO	2	0.70			N			2			N	Ca. Riding & Hiking Trail 24E03	Coyote Lake 26E43

Trail Name	Trail #	AU	Recreation Category	Length	Alt 1			Alt 2			Alt 3			Beginning Termini	Ending Termini
					NSCS	NRFS	Trail Class	NSCS	NRFS	Trail Class	NSCS	NRFS	Trail Class		
Perkins Cutoff	26E42	COO	2	2.16			N			1			N	Coyote Lake 26E43	Dinkey Lake Wilderness Bdy.
Black Peak	27E08	DIL COO	2.3	2.00			N			3			2	Ca. Riding & Hiking Trail 24E03 (Sec. 31)	Dinkey Lakes 27E07 (Sec. 7)
Frazier	28E33	HEL	2	0.83			N			1			1	Dinkey Lake Wilderness Bdy. (Sec. 19)	Dinkey Lake Wilderness Bdy. (Sec. 25)
Frazier	28E33	HEL	2	0.07			N			1			1	Dinkey Lake Wilderness Bdy. (Sec. 25)	Dinkey Lake Wilderness Bdy. (Sec. 25)
Frazier	28E33	HEL NEL	2	0.04			N			1			1	Dinkey Lake Wilderness Bdy. (Sec. 25)	Dinkey Lake Wilderness Bdy. (Sec. 25)
Frazier	28E33	HEL	2	0.40			N			1			1	Dinkey Lake Wilderness Bdy. (Sec. 25)	Dinkey Lake Wilderness Bdy. (Sec. 26)
Frazier	28E33	HEL	2	0.13			N			1			1	Dinkey Lake Wilderness Bdy. (Sec. 26)	Dinkey Lake Wilderness Bdy. (Sec. 26)
Frazier	28E33	HEL	2	0.04			N			1			1	Dinkey Lake Wilderness Bdy. (Sec. 26)	Dinkey Lake 27E07

Table 2.18: Trail Management Strategy

Adapted from the 2005 Pack Stock Management EIS for the Ansel Adams and John Muir Wildernesses

Trail Management Strategy by Trail Class – Dinkey Lakes Wilderness					
Trail Attributes	**Trail Class 1[8] Minimal/Undeveloped Trail**	**Trail Class 2 Simple/Minor Development Trail**	**Trail Class 3 Developed/Improved Trail**	**Trail Class 4 Highly Developed Trail**	**Trail Class 5 – Not Appropriate in Wilderness**
Tread, Traffic Flow, Character	• Tread generally followable, but may have sections that are intermittent, awkward or hard to follow. • Minimal excavated tread – typically only to define managed route or to allow passage in steep terrain. • Commonly steep for long sections**. [9] • Short segments may require route finding between defined sections • Native materials	• Tread readily discernible, graded, and continuous, but occasionally narrow and rough. • In severe terrain may be wider and more developed to accommodate traffic. • Some steep sections**, usually for short to moderate distances. • Few or no constructed passing sections. • Native materials	• Tread obvious and continuous. • In severe terrain may be wider and more developed to accommodate traffic. • Width accommodates unhindered one-lane travel with occasional constructed passing sections. • Some steep sections**, typically for short segments. • Native materials	• Tread wide and relatively smooth with few irregularities. • Trailbed width may frequently accommodate two-lane travel to allow for frequent passing. • Very few steep sections – typically well-graded. • Native materials	

[8] Trail Class 1 Trails typically receive very low use by highly skilled wilderness travelers. TC-1 trails are the most primitive designed and managed trails, and may have features which are awkward or impractical for some users. Both stock and hikers may be present and managed on Class 1 trails.

[9] Grade variances are typically based upon consideration of soil type, hydrologic conditions, anticipated use levels, and other factors contributing to surface instability and erosion potential. Due to increased potential for rapid degradation of trail and connected resources, trails are not intentionally aligned at steeper trail grades in areas with high levels or numbers of risk factors.

Trail Management Strategy by Trail Class – Dinkey Lakes Wilderness					
Trail Attributes	**Trail Class 1[8] Minimal/Undeveloped Trail**	**Trail Class 2 Simple/Minor Development Trail**	**Trail Class 3 Developed/Improved Trail**	**Trail Class 4 Highly Developed Trail**	
Constructed Features & Trail Elements	• Minimal to non-existent • Drainage is functional • In-tread structures minimal, but as needed to protect resources and maintain drainage. • Few or no constructed bridges or foot crossings, except minimum needed to protect resources.	• Structures are of limited size, scale, and number • Drainage is functional • Structures as needed to protect trail infrastructure and resources and maintain drainage. • Primitive or simple constructed foot crossings and fords.	• Trail structures (walls, steps, drainage, raised trail) may be common and substantial • Native trail bridges as needed for resource protection and to provide access appropriate to destination. • Generally native materials used in Wilderness, but engineered bridges may be appropriate as determined by further analysis[10]	• Trail structures frequent and substantial • Trail bridges appropriate at water crossings. • Generally native materials used in Wilderness, but engineered bridges may be appropriate as determined by further analysis[11]	
Obstacles	• Awkward sections common • Obstacles, such as logs, rocks, narrow passages may be present, in some cases requiring occasional dismount and/or high skill levels. • Physical barriers, such as downed logs or rocks, when cleared, should allow passage for packs or saddles if either pack or saddle use may be present, to ensure that allowed use stays on trail alignment. • Light vegetation likely encroaches into trailway – cleared primarily to define trail.	• Awkward sections occasionally present. • Blockages cleared to define route and protect resources • Physical barriers, such as downed logs or rocks, when cleared, allows for ready passage for packs or saddles if either pack or saddle use may be present. • Light vegetation may encroach into trailway,	• Obstacles and awkward surfaces infrequent • Trail is maintained to allow relatively easy travel by allowed use types. • Vegetation removed to allow clear and open passage by all user types.	• Few or no notable obstacles exist • Vegetation removed to allow clear and open passage by all user types.	

[10] Designed, non-native trail bridges would only be appropriate under exceedingly rare instances in wilderness, and would require further analysis to determine their appropriateness within wilderness. Native materials or those most in keeping with the natural environment will be preferred.

[11] Designed, non-native trail bridges would only be appropriate under exceedingly rare instances in wilderness, and would require further analysis to determine their appropriateness within wilderness. Native materials or those most in keeping with the natural environment will be preferred.

Trail Management Strategy by Trail Class – Dinkey Lakes Wilderness					
Trail Attributes	**Trail Class 1[8] Minimal/Undeveloped Trail**	**Trail Class 2 Simple/Minor Development Trail**	**Trail Class 3 Developed/Improved Trail**	**Trail Class 4 Highly Developed Trail**	
Signs	• Minimum required for basic direction at junctions. • Generally limited to regulation and resource protection • No destination signs present	• Minimum required for basic direction at junctions. • Generally limited to regulation and resource protection • Typically no destination signs present + Basic informational signing at trailheads.	• Regulation, resource protection, user reassurance.[12] • Directional signs at junctions, or when confusion is likely. • Destination signs rarely present • Informational and interpretive signs may be present (outside of Wilderness)	• Wide variety of signs likely present to manage large number of users. • Informational and interpretive signs likely (outside of Wilderness) • Destination signs rarely present	
Typical Recreation Setting & Environs	• Natural, unmodified • Could occur in any recreation category, but most commonly accesses more primitive recreation areas.	• Natural, essentially unmodified • Potentially occurs in any recreation category, but typically accesses destinations with moderate use and management.	• Natural, slightly modified • Most common in higher use travel corridors or leading to high use destinations with higher management.	• Relatively modified setting • Only present in areas with very high use and intensive management. • Rarely present in Wilderness.	

[12] User reassurance markers will generally not be used on trails in the Dinkey Lakes Wilderness unless exceptional confusion may exist.

Table 2.19: Trail Operation and Maintenance Guidelines for the Dinkey Lakes Wilderness

Adapted from the 2005 Pack Stock Management EIS for the Ansel Adams and John Muir Wildernesses

Trail Operation and Maintenance Guidelines

These guidelines are intended to assist in developing trail prescriptions and subsequent program management, operations and maintenance. Trail O&M Guidelines may be adapted to reflect local considerations. The guidance outlined below reflects "typical" considerations for trails in different Trail Classes, recognizing that each trail may have a range of characteristics, variability, and unique management considerations.

Trail Attributes	Trail Class 1 Minimal/Undeveloped Trail	Trail Class 2 Simple/Minor Development Trail	Trail Class 3 Developed/Improved Trail	Trail Class 4 Highly Developed Trail
Trail Management	Typically managed to accommodate: • Low use levels • Highly skilled users, capable of travel off-trail, and following intermittent trails. • In rugged terrain, conditions may be challenging and impractical for some trail users.	Typically managed to accommodate: • Moderate use levels • Mid-to-highly skilled users, capable of traveling over awkward condition/obstacles • Users with some orienteering skill (trail may occasionally have confusing alignment). • Trail suitable for both equestrians and hikers, but challenging and requiring good trail skills.	Typically managed to accommodate: • Moderate to heavy use • Users with intermediate skill level and experience • Users with minimal orienteering skills (trail easy to follow). • Moderately easy travel for managed use types • Random potential for accessible use	Typically managed to accommodate: • Very heavy use • Users with minimal skills and experience • Users with minimal or no orienteering skills (trail easy to follow). • Relatively easy travel by managed use types
Maintenance Indicators	• Resource protection • Route definition • Safety commensurate with targeted recreational experience	• Resource protection • Protection of trail infrastructure • Safety commensurate with targeted recreational experience	• Resource protection • Protection of trail infrastructure and travelability of trail. • Safety commensurate with targeted recreational experience	• Resource Protection • Protection of trail infrastructure and travelability of trail. • Safety commensurate with targeted recreational experience
Maintenance Frequency & Intensity	• Infrequent recurring maintenance – generally exceeds annual interval. • Maintenance may not be scheduled except in response to reports of unusual resource problems or obstacles which effectively close the trail to intended use.	• Maintenance scheduled to preserve the trail facility and route location. • Maintenance interval may exceed one year, or in response to reports of unusual resource or trail problems.	• Trail cleared to make available for use early in use season, and to preserve trail integrity. • Maintenance interval typically annual or more frequently, or in response to reports of trail or resource damage or problem affecting managed use type and experience level.	• Trail cleared to make available for use at earliest opportunity in use season. • Typically, maintenance performed at least annually.

Table 2.20: Dinkey Lakes Wilderness – Typical Trail Design Targets
Adapted from the 2005 Pack Stock Management EIS for the Ansel Adams and John Muir Wildernesses

Dinkey Lakes Wilderness Typical Trail Design Targets						
Typical Specifications:		**Trail Class 1**[13]	**Trail Class 2**	**Trail Class 3**	**Trail Class 4**	**TC 5**
Designed Typical Tread Width	**Target width**	Excavated only to define route or to allow passage on steep terrain. Typically < 12"	12" – 18"	24"	24"	Not Appropriate in Wilderness
	Exceptions	May have sections where trail is intermittent or lightly defined.	May be to 36" at switchbacks, turnpikes, fords and along precipices.	May be to 48" at switchbacks, turnpikes, fords, steep side slopes and precipices.	May be to 48" at switchbacks, turnpikes, fords, steep side slopes and precipices.	
Design Surface	**Tread Type**	Native, minimal excavation. May have originally been user-created.	Native, w/ moderate excavation and fill.	Native with some native on-site borrow as fill or tread materials.	Native with some native borrow as fill or tread materials.	
	Surface Obstacles	Roots, rocks, embedded logs <18", natural steps or jump-offs <30".	Embedded roots, rocks, logs <12". Occasional natural steps or jump-offs <24".	Generally clear. Occasional tread protrusions to 6", natural steps or jump-offs <18".	Smooth, few obstacles. Occasional protrusions <6". Natural steps < 12".	
	Steps - Target Rise : Run	<12"	<12" rise : 36" run	9" rise : 36" run	9" rise : 36" run	
Design Grade[14]	**Target Range**	< 35% (less in areas with high erosion potential)	< 20%	< 15%	< 12%	
	Short Pitch Max (Up to 200' lengths)	45% (less in areas with high erosion potential)	35%	25% (may exceed 25% for short distances if intensive tread structures installed.)	20% (may exceed 20% for short distances if intensive tread structures installed.)	
	Max Pitch Density[15]	< 30% of trail (less in areas with high erosion potential.)	< 10% of trail	<5% of trail	<5% of trail	

[13] TC-1 trails are the most primitive designed and managed trails, and may have features which are awkward or impractical for some users. Both stock and hikers may be present and managed at low levels on Class 1 trails.
[14] Grade variances should be based upon consideration of soil type, hydrologic conditions, anticipated use levels, and other factors contributing to surface stability and erosion potential. Due to potential for rapid degradation of trail and connected resources, generally avoid designing trails at the upper ranges of trail grade in areas with high level of risk factors and erosion potential.
[15] Maximum pitch density refers to the percentage of the trail that is within 3% of the Short Pitch Maximum Grade.

Dinkey Lakes Wilderness Typical Trail Design Targets						
Typical Specifications:		**Trail Class 1[13]**	**Trail Class 2**	**Trail Class 3**	**Trail Class 4**	**TC 5**
Design Cross-Slope	**Target Range**	No excavation unless natural side slope exceeds 30%.	5 – 10%	5%	5%	
	Maximum	Up to Natural side-slope unless exceeds 30%	15%	10%	10%	
Design Clearing[16]	**Width**	4 – 5', with some intrusion of light vegetation into clearing area likely.	5' – 6' with some slight intrusion of light vegetation into clearing area likely.	Stock Trails = 6' – 7' Hiker Only = 5' – 6'	Stock Trails = 6' – 8' Hiker Only = 5' – 7'	
	Height	7-8', with some intrusion of light vegetation into clearing area likely.	8' with some slight intrusion of light vegetation into clearing area likely.	Stock trails = 8-10' Hiker only Trails = 8'	Stock trails = 10' Hiker Only = 8'	
Design Turns	**Minimum Radius**	If designed, typically 3'	4' – 5'	5' – 6'	6' – 8'	

[16] Physical barriers, such as downed logs or rocks, when cleared, should allow passage for packs or saddles if either pack or saddle use may be present.

Grazing Resources

Grazing areas (meadows) are based on areas requested by the pack station to graze their stock in conjunction with an approved stock camp. Grazing would occur periodically throughout the season and stock would be managed to avoid sensitive or critical areas with oversight from the packer or wrangler.

Table 2.21: Summary of Grazing Suitability

TES = Threatened, endangered, sensitive (species)
YT = Yosemite toad, a Forest Service sensitive amphibian species.
WIFL = Willow flycatcher, a Forest Service sensitive bird species.
GGO = Great gray owl, a Forest Service sensitive bird species.
RMU = Rangeland Management Unit (grazing allotment boundary)

Analysis Unit	Site Name	ID #	Acres	TES Summary	Concurrent Cattle Grazing	Pack Station Requesting Use	Current Grazing Use by Pack Station	Suitability Determinations
Chinquapin	-	-	-	-	No	N/A	N/A	No commercial pack stock grazing proposed
Coyote	Perkins Camp	516M148	5	-	Yes	CPO/D&F/ HSPS	D&F/HSPS	Prohibit commercial pack stock grazing until assessed.
	Rock Meadow	516M142	241	Occupied YT habitat	Yes	CPO/D&F/ HSPS	D&F/HSPS	Prohibit commercial pack stock grazing until assessed.
Dinkey Lakes	Miner Camp Meadow	520M282	28	Occupied YT habitat and fen habitat	Within allotment boundary, but no grazing occurs in this location	CPO/D&F/LVPS	No Use	Prohibit commercial pack stock grazing. Unsuitable due to range readiness concerns, low forage production and meadow condition.

Analysis Unit	Site Name	ID #	Acres	TES Summary	Concurrent Cattle Grazing	Pack Station Requesting Use	Current Grazing Use by Pack Station	Suitability Determinations
Dinkey Lakes	South Lake Meadow	520M277	2	Occupied YT habitat	Within allotment boundary, but no grazing occurs in this location	CPO/D&F/LVPS	No Use	Prohibit commercial pack stock grazing. Unsuitable due to range readiness concerns.
	SE 1st Dinkey Lake Meadow	520M275	26	Occupied YT habitat	Within allotment boundary, but no grazing occurs in this location	CPO/D&F/LVPS	No Use	Prohibit commercial pack stock grazing. Unsuitable due to range readiness concerns, low forage production and meadow condition.
Edison	-	-	-	-	Yes	N/A	N/A	No commercial pack stock grazing proposed.
Florence	-	-	-	-	No	MTR/LVPS	No Use	No commercial pack stock grazing proposed.
Helms	-	-	-	-	No	N/A	N/A	No commercial pack stock grazing proposed.
Huntington East	-	-	-	-	Yes	D&F	No Use	No commercial pack stock grazing proposed.
Huntington West	-	-	-	-	Yes	D&F	No Use	No commercial pack stock grazing proposed.

Analysis Unit	Site Name	ID #	Acres	TES Summary	Concurrent Cattle Grazing	Pack Station Requesting Use	Current Grazing Use by Pack Station	Suitability Determinations
Kaiser	NE Nellie Lake Meadow	516M373	0.8	Occupied YT habitat	Yes	D&F	No Use	Authorize commercial pack stock grazing (<16 stock nights late season use only). Protect wet areas from grazing impacts.
	Nellie Lake Meadow	516M374	2	Potential fen habitat	Yes	D&F	No Use	Prohibit commercial pack stock grazing. Unsuitable due to range readiness concerns.
Nelder	Bare Island Meadow	None Assigned	0.8	Suitable YT habitat	Yes	YTPS	YTPS	Authorize commercial pack stock grazing (10 stock nights).
	Biledo Meadow	501M103	6	Suitable WIFL habitat	Yes	YTPS	YTPS	Authorize commercial pack stock grazing (50 stock nights).
	Buffin Meadow	501M106	7	Suitable WIFL habitat	Yes	YTPS	No Use	Authorize commercial pack stock grazing (119 stock nights).

Analysis Unit	Site Name	ID #	Acres	TES Summary	Concurrent Cattle Grazing	Pack Station Requesting Use	Current Grazing Use by Pack Station	Suitability Determinations
	Dutchman Lake Meadow	501M203	2	Fen habitat	No	YTPS	No Use	Authorize commercial pack stock grazing (442 stock nights). Stock would be managed to protect fen on west and east shore of lake.
	Grizzly Creek Meadow	501M36	1	Potential WIFL habitat	Yes	YTPS	No Use	Authorize commercial pack stock grazing (12 stock nights).
	Grouse Meadow	None assigned	4	Not surveyed	Yes	YTPS	No Use	Prohibited commercial pack stock grazing until assessed.
Nelder	Lower Iron Creek Meadow	None assigned	1	Potential habitat for TES plant, subalpine fireweed (*Epilobium howelii*)	No	YTPS	YTPS	Prohibit commercial pack stock grazing.
	Pike Cabin Camp Meadow	None assigned	<1	Not surveyed	No	YTPS	No Use	Prohibited commercial pack stock grazing until assessed.
	Quartz Meadow Complex	501M47	6	Occupied YT habitat; suitable WIFL habitat, fen habitat	Yes	YTPS	YTPS	Prohibit commercial pack stock grazing. Unsuitable due to wet meadow conditions and overlap w/cattle allotment.
	Tin Can Meadow	None assigned	4	Suitable WIFL habitat	Yes	YTPS	YTPS	Authorize commercial pack stock grazing (40 stock nights).

Analysis Unit	Site Name	ID #	Acres	TES Summary	Concurrent Cattle Grazing	Pack Station Requesting Use	Current Grazing Use by Pack Station	Suitability Determinations
	Upper Goat Meadow	501M125	14	Suitable GGO & WIFL habitat	Yes	YTPS	No Use	Authorize commercial pack stock grazing (280 stock nights).
	Upper Iron Creek Meadow	501M72	5	Suitable goshawk habitat	Yes	YTPS	YTPS	Authorize commercial pack stock grazing (100 stock nights).
Nelson	Little Lake Meadow	521M367	2	Occupied YT habitat	Within allotment boundary, but no grazing occurs in this location	CPO/D&F	No Use	Prohibit commercial pack stock grazing. Unsuitable due to range readiness concerns and low forage production.
Tule	-	-	-	-	Yes	CPO	No Use	No commercial pack stock grazing proposed.
Wishon	-	-	-	-	Yes	CPO	No Use	No commercial pack stock grazing proposed.
JM/AA	-	-	-	-	Varies by RMU	Varies by Pack Station	Varies by Pack Station	Authorized use and associated stock nights is referenced in 2005 Pack Stock Management EIS

Table 2.22: Pastures

Analysis Unit	Site Name	ID #	Acres	TES Concerns	Concurrent Cattle Grazing	Pack Station Requesting Use	Current Grazing Use by Pack Station	Suitability Determinations
Nelder	Soquel Meadow	504M288	18	Fen habitat, Suitable GGO and WIFL habitat	Yes	YTPS	YTPS	Authorize grazing with 400 stock nights. Stock would be managed to protect fens from grazing impacts.
Dinkey Front Country	Mill Meadow	520M109	1	Suitable YT habitat	Yes	CPO	CPO	Authorize 18 stock nights for this pasture. On-date after June 1st.
	Glen Meadow	520M261	18	Fen habitat	Yes	CPO	CPO	Authorize use after June 1st. [Stock nights would be based on total fenced area which needs to be determined]. Stock would be managed to protect fens from grazing impacts.
Clover	Soldier Meadow	507M10	9	Bolander's clover *(Trifolium bolanderi)* present Suitable YT habitat	Yes	MPS	No Use	Authorize 180 stock nights.

Table 2.23: Designated Stock Camps for YTPS

The following table lists the non-wilderness campsites used by YTPS. Camps are identified as approved or prohibited. Where approved stipulations are provided as needed. YTPS is the only pack station that makes extensive use of non-wilderness Forest lands for overnight trips. Since these campsites do not have the same level of regulation or may be much more developed then those in the wilderness, they are listed separately with appropriate management direction.

Analysis Unit	Camp Name	Location	Assigned Site?	Alt 2	Alt 3	Stipulation/Clarifier
Nelder	Bare Island Lake Camp (8300')	North end of lake. 200' from lakeshore in small swale.	No	A	A	None
Nelder	Quartz Meadow Camp (8,300'):	Near Quartz Mountain Trailhead	Yes	A	A	Submit plans for use of spring and construction of campfire pit, tent sites, trailer house site, and rebuilt corral with above ground portable pens.
Nelder	Lower Iron Creek Camp (Bennings Camp) (6,800'):	Midway down Iron Creek.	No	A	A	Allow only 6 head of stock at this site/night, overnight remaining stock upstream and across the trail from existing site. Approve irrigation hose at site for the season, drain hose back into creek when not in use to water stock. Locate latrine for human waste at least 100 feet from Iron Creek.
Nelder	Upper Iron Creek Camp (7,500')	On E side of Iron Creek	No	P	P	New site located on W side of creek.
Nelder	Upper Iron Creek Camp (7,500')	On bench south of trail on W side of Iron Creek	No	A	A	Overnight stock at identified site on E side of creek
Nelder	S Fork Merced Camp (6,000')	On S Fork of Merced River	No	A	A	Overnight stock 100' from water, avoid riparian zone. Fall hazard trees. Pack in feed.
Nelder	Upstream S Fork Merced River Camp (6,000')	On S Fork of Merced River	No	P	P	Site is located within Yosemite National Park

Analysis Unit	Camp Name	Location	Assigned Site?	Alt 2	Alt 3	Stipulation/Clarifier
Nelder	Buffin Meadow Camp (5,880').	Buffin Meadow	No	A	A	No vehicles or camp facilities in the meadow
Nelder	Dutchman Lake Camp (7,700')	Dutchman Lake	No	P	P	Too close to water
Nelder	Pike Camp Cabin (6,900')	On high elevation bench south of S Fork of Merced River	No	P	P	Camp not assessed by IDT. Do not use cabin.
Nelder	Tin Can Meadow Camp (5,300')	Near Pack Station	No	P	P	Resource concerns.
Nelder	Grizzly Creek Camp (7,500')	Grizzly Creek	No	P	P	Resource concerns.
Nelder	Biledo Camp (7,100')	Biledo Meadow near spring pipe	No	P	P	Do not use cabin, stove, campfire pit, table, or tents sites. Remove picnic table and kitchen facilities. Dismantle and clean up fire ring, but do not remove rock from the fire ring site. Deconstruct existing corral at edge of meadow.
Nelder	Biledo Camp (relocated) (7,100')	N end of Bildeo Meadow	Yes	A	A	Submit plans for water delivery system, portable toilet, access road, gate(s), and campsite facilities (picnic tables, camp kitchen, campfire ring, etc). Design water delivery system to return unused water to Rainier Creek without causing erosion. Develop interpretive materials or information to educate clients on importance of not disturbing sensitive resources in the area.
Nelder	Soquel Meadow Camp (5,400')	Soquel Mdw.	No	P	P	Camp not assessed by IDT.

2.4 Effects Summary

Table 2.24: Effects Summary

This table summarizes the effects of the three alternatives on the relevant resources in the project area. The table provides only a brief highlight of the environmental consequences. Chapter 3 contains the detailed analysis of affected environment and the environmental consequences of each alternative.

Topic	Alternative 1	Alternative 2	Alternative 3
Human Environment			
Recreation (See Section 3.1.2)	The range of recreational opportunities would be reduced. People needing the help of commercial pack stock would not be able to experience the backcountry and wilderness areas by commercial packers. Those people who hire the commercial pack stock to access remote areas of the Forest would be denied the opportunity to experience their trips in the same way as the past. Consistent with LRMP direction, however, reduces the ability to provide a broad spectrum of dispersed recreation and does not meet the needs assessment for commercial pack stock services and therefore does not meet the purpose and need.	The range of recreational opportunities would be retained. People needing the help of commercial pack stock would be able to experience the backcountry and wilderness areas by commercial packers. Those people who hire commercial pack stock to access remote areas of the Forest would continue to have the opportunity to experience their trips in the same way as the past. Consistent with LRMP direction, no change in experiential setting.	Same as Alternative 2

Topic	Alternative 1	Alternative 2	Alternative 3
Wilderness (See Section 3.1.1)	At the wilderness scale, there would be no overall effect to wilderness character. There would be no effect to the untrammeled quality of wilderness character. The natural and undeveloped qualities of wilderness character would be slightly improved, where campsites or trail impacts are partially or totally attributable to commercial stock. The majority of impacts related to visitor use, however, would persist, as most are not related to commercial stock. Opportunities for primitive and unconfined type of recreation would be significantly decreased, as users of commercial pack stations would no longer have the opportunity to enjoy the wilderness on stock (two-thirds of all stock users in these wilderness areas are commercial stock users). Opportunities for solitude would be minimally increased by removing commercial pack stations. In summary, wilderness character would remain the same, and would favor slight improvements to the wilderness qualities of naturalness, undeveloped and opportunities for solitude over significant adverse impacts to the quality of opportunities for a primitive and unconfined type of recreation.	At the wilderness scale there would be no overall effect to wilderness character. This alternative does not propose any controls on destinations, and so there is a possibility that in the future use patterns could change, which could affect the natural and undeveloped qualities of wilderness character, but this is not expected based upon historic use patterns of the pack stations. There would be no effect to the untrammeled quality of wilderness character. There would be a minimal adverse impact to the undeveloped quality of wilderness character due to the potential improvements to trails in the Dinkey Lakes Wilderness that would be directed by the DL Trails Plan. There would be a minimal positive impact to the natural quality of wilderness character due the ability to more adequately address resource issues on trails, as directed by the DL Trails Plan. Overall, there would be no net effect to the quality of outstanding opportunities for solitude or a primitive and unconfined type of recreation. There would be a minimal positive effect to outstanding opportunities for solitude by closing two system trails in the Dinkey Lakes Wilderness to commercial stock. This would be balanced by a minimal adverse effect to outstanding opportunities for unconfined recreation by preventing commercial stock clients from riding on these two trails. In summary, wilderness character would remain the same, and would favor the wilderness qualities of naturalness and opportunities for solitude over the qualities of undeveloped and opportunities for primitive and unconfined recreation.	At the wilderness scale there would be no overall effect to wilderness character. This alternative improves the ability for the agency to control use by restricting commercial pack stations to specific destinations and use levels within the Kaiser and Dinkey Lakes Wildernesses. There would be no effect to the untrammeled quality of wilderness character. The effects to the undeveloped and natural qualities of wilderness character are the same as Alternative 2. Overall, there would be no net effect to the quality of outstanding opportunities for solitude or a primitive and unconfined type of recreation. Outstanding opportunities for solitude would be slightly increased for most visitors by closing two system trails in the Dinkey Lakes Wilderness to commercial stock, by restricting overnight commercial stock camps to designated sites, and by restricting spot and dunnage drops to designated zones. This slight positive effect would be balanced by a slight adverse effect to outstanding opportunities for a primitive and unconfined type of recreation because commercial stock clients would be prevented from riding on two system trails, and would be restricted to camping at designated sites or zones. In summary, wilderness character would remain the same, and would favor the wilderness qualities of naturalness and opportunities for solitude over the qualities of undeveloped and opportunities for primitive and unconfined recreation.

Topic	Alternative 1	Alternative 2	Alternative 3
Trails (See Section 3.1.3)	Commercial stock would not be present on system or use trails. There would be a slight improvement in overall system trail stability accompanied by long-term stabilization due to the removal of commercial pack stock. The specific impacts to any individual system trail would be dependent upon the use types and use levels on the trail. Trail stability on use trails that are also heavily used by non-commercial users would not improve. Any trail with active instability may continue to be unstable even after the removal of commercial pack stock until they are stabilized through trail maintenance or reconstruction.	This alternative would confine commercial stock to system trails, approved use trails and campsite access trails within ¼ mile of system trails. A small number of system trails (0.8 miles) would be designated as NSCS, which would prohibit commercial stock from using them. There would be no expected change in overall system trail stability from commercial pack sock use, as use levels and use patterns of commercial stock would not be expected to change. There would an expected improvement to system trail stability in the Dinkey Lakes Wilderness by providing better opportunities to manage resource impacts to system trails in this wilderness. There would be an expected improvement to use trail stability, accompanied by long-term naturalization, on use trails that were formerly used by primarily commercial stock that would now be prohibited. Trail stability on use trails that are also heavily used by private visitors would not be expected to improve. Any trail with active instability may continue to be unstable even after the removal of commercial pack stock until they are stabilized through trail maintenance or reconstruction.	This alternative would confine commercial stock to system trails, approved use trails and campsite access trails that access designated stock camps or designated spot and dunnage sites. A small number of system trails (0.8 miles) would be designated as NSCS, which would prohibit commercial stock from using them. Trail stability of system trails would be the same as Alternative 2. Trail stability of use trails would be the same as Alternative 2. Any trail with active instability may continue to be unstable even after the removal of commercial pack stock until they are stabilized through trail maintenance or reconstruction.
DL Trails Plan (See Section 3.1.3)	This alternative would not meet the purpose and need/settlement agreement between the Forest Service and the Back County Horsemen of California and is not consistent with the LRMP.	This alternative meets the purpose and need and the settlement agreement between the Forest Service and the Back County Horsemen of California and is consistent with the LRMP. This alternative accurately identifies a system of trails for all users and appropriate trail management objectives for each system trail consistent with desired conditions articulated in the 2001 Wilderness Plan and the preservation of wilderness character.	Same as Alternative 2.

Topic	Alternative 1	Alternative 2	Alternative 3
Heritage Resources (See Section 3.1.4)	Removal of any NRHP eligible buildings and facilities will result in an *adverse effect*. Ground disturbance during removal of pack station buildings and facilities will be an *adverse/potentially adverse* effect to associated heritage resources. Heritage resource site evaluation and mitigation of *adverse effects* will be undertaken. Tribal consultation will be required. Elimination of daily use of trails by commercial pack stock will minimize *adverse/potentially adverse effects* to the heritage resource sites located along those trails. *Adverse effects* to NRHP eligible heritage resources from building and facility removal will result in a significant cumulative effect.	One heritage resource site will be *potentially adversely* affected by the operations of two commercial pack stations. Out of 106 heritage resource sites within the APE, 45 sites have *ambiguous effects* from commercial pack stock operations, and require long-term monitoring to determine the presence or absence of impacts. Out of 106 heritage resource sites within the APE, 60 sites will be protected based on the employment of environmental protection measures or avoidance. The *potentially adverse* effect to one heritage resource site from operations of two commercial pack stations will result in a minimal cumulative effect.	Same as Alternative 2, however, destination management zones and designated stock camps would benefit heritage resources within the Kaiser and Dinkey Lakes Wildernesses and the MWSR since use is regulated to a set level and no stock camps will be designated within the boundary of a heritage resource site; prohibits overflow impacts to adjacent heritage resources, and moves impacting activities out of heritage resource sites.
Operations (See Section 3.1.5)	No new permit would result in complete loss of operations on the Sierra National Forest. Although this FEIS will not be determining the removal of privately owned pack stock facilities, a foreseeable action would be for the facilities to be removed. All facilities would be required to be removed which would result in a short term increased cost. This alternative does not meet purpose and need to provide pack stock supported recreation.	No measurable change from baseline operations would result for pack station operations or revenue.	For the three businesses that operate in the Dinkey Lakes and Kaiser Wildernesses and the Merced River Wild and Scenic corridor, destination quotas for these areas are not likely to result in measurable effects to operations and revenue (slight positive and slight negative changes should balance out). Other effects are expected to be the same as Alternative 2.

Topic	Alternative 1	Alternative 2	Alternative 3
Economics (See Section 3.1.5)	Termination of these permits would result in a loss of approximately 66 jobs and $750,000 revenue for the 7 businesses. The loss of tourist and tax revenue would have more impact to the smaller counties (Madera and Mariposa) than Fresno County. All revenue for packs stations and the Florence Lake Resort on the SNF would cease. The Regional economic impact of pack station activities defines a loss of total income of $1,530,818 as a result of no pack stations. See Section 3.1.5 for further detail.	Direct economic contribution of labor income and employment would be similar to the existing t (permits authorized) condition. County tourism and tax income would be generated at a rate comparable with the historical and current situation. The Regional economic impact of pack station activities defines a contribution of total income of $1,530,818 as a result of pack stations. See Section 3.1.5 for further detail.	Same as Alternative 2.
Physical Environment			
Watershed (See Section 3.2.1)	Soil Quality would be improved or potentially improved on 69 acres of facility sites and 305 acres of grazed areas. Erosion would be reduced on some trails. Water Quality would improve. Sedimentation would decrease slightly, and fecal coliform concentrations would decrease. Hydrology and Geomorphology may improve in some areas with the removal of pack station uses. RCO attainment would no longer be potentially affected by commercial pack stock use, but would not change from the current status. There would be no cumulative watershed effects.	Soil Quality would be potentially affected in 13 grazed meadows (87 ac). Erosion from trails would continue at the current rate except in the Dinkey Lakes Wilderness where changes in the Trail Management Plan could result in decreased erosion. Water Quality would be impacted by increases in sedimentation and fecal coliform. Design measures (BMPs) would mitigate these effects at facilities and campsites, and in grazing areas to a lesser extent. Pack stock use of trails would be the primary source of sediment and fecal coliform. Hydrology and Geomorphology may be impacted, particularly in 13 grazed meadows, however, grazing management would limit the potential for effects. RCO attainment would not be limited by the authorization of grazing in meadows, including three with existing minor departures from RCOs and two that do not currently meet RCOs. There would be no cumulative watershed effects.	Same as Alternative 2 for all indicators, except that there would be a lower risk of long-term impacts to each analysis element because the monitoring and adaptive management strategy would identify impacts and adjust permitted use to ensure that standards and guidelines are met.

Topic	Alternative 1	Alternative 2	Alternative 3
Biological Environment			
Aquatic Species (See Section 3.3.1)	A beneficial effect would be expected under Alternative 1 due to the elimination of potential disturbances related to pack station activities particularly at the lakes and meadows as compared to the effects of Alternative 2 and 3. This includes the elimination of disturbances resulting from the presence of pack trains and riders, and reduced impacts to meadow vegetation and riparian areas due to the absence of grazing and pack stock related trampling. This beneficial effect may be offset to some degree by other recreational uses which are outside the scope of this analysis. Cattle grazing is authorized in a number of the meadows and would continue no matter which alternative was selected for this project particularly in NE Nellie Lake Meadow (Kaiser AU) where the Yosemite toad also occurs. There would be no cumulative effects. Continued effects could potentially affect aquatic species from past and current activities (this list is derived from Table 3.1) such as current logging, grazing, recreation (off-highway vehicles, snowmobiling, fishing, camping, hiking, backpacking), however, no new incremental effects would occur from the no action alternative because no direct or indirect effects are expected.	Alternative 2 has a greater potential to affect the Yosemite toad in the Dinkey AU where a use trail around Swede Lake and South Lake would be approved through occupied fragile meadow habitat. Alternative 2 would allow use throughout the project area thus the potential to affect spatially a larger area of aquatic species habitat is expected, though the concentration in those areas may or may not be less than in Alternative 3. When compared to the amount of available aquatic suitable and potentially suitable habitat on the Sierra National Forest, Alternative 2 affects 6.1% of the habitat. For the aquatic species found within the project area AUs the greatest potential of effect from the management activities proposed in Alternatives 2 and 3 is the increase in the amount of sedimentation into streams and the compaction of soils, changes in riparian vegetation and water temperature.	Alternative 3 has a greater potential to affect the Yosemite toad in the Coyote AU where a designated stock camp would be established near Rock Meadow, an occupied core site for the species. Alternative 3 might affect spatially less area of aquatic species habitat however the concentration of use into the destination zones may or may not be more than in Alternative 2. When compared to the amount of available aquatic suitable and potentially suitable habitat on the Sierra National Forest, Alternative 3 affects 5.9% of the habitat. For the aquatic species found within the project area AUs the greatest potential of effect from the management activities proposed in Alternatives 2 and 3 is the increase in the amount of sedimentation into streams and the compaction of soils, changes in riparian vegetation and water temperature.

Topic	Alternative 1	Alternative 2	Alternative 3
Wildlife (See Section 3.3.2)	There would be a reduction of disturbance to sensitive species and habitat resulting from pack station related. Sensitive species would experience a decrease in stress and disturbances resulting from the proximity of horseback riders and other activities associated with the pack station. Effects along remote and infrequently traveled trails would be less noticeable. Existing dispersed, non-permitted recreational uses (hikers, campers, fishing, biking, OHV use, etc.) would continue within the analysis area, so the potential for disturbances to sensitive species and their habitat would continue at some level. A beneficial effect would be the elimination of disturbances resulting from the presence of pack trains and riders, and reduced impacts to meadow vegetation and riparian areas due to the absence of grazing and pack stock related trampling. This beneficial effect may be offset to some degree by other recreational uses.	Effects can be generalized into two types: disturbance to individual species by the presence of pack stock and humans; and effects to habitat by pack stock, such as grazing and trampling. The direct effects of commercial pack stock operations represent a small percentage of overall use in the non-wilderness portion and cannot be easily separated out from the total human disturbance presence and habitat modification effects that may affect terrestrial species use of suitable habitats for nesting, denning and foraging. An indirect effect to wildlife species and their habitat is trails create small habitat fragmentation corridors that amount to a relatively insignificant habitat reduction for species and their prey.	Same effects as Alternative 2.

Topic	Alternative 1	Alternative 2	Alternative 3
Botany (See Section 3.3.3)	**Rare Plants:** There would be no direct impacts from commercial pack stock trampling or grazing on rare plants or their habitat. The process of removing pack stations and facilities would slightly increase habitat for riparian-dependent rare plants. This alternative offers the most protection for rare plants and their habitats and would have no cumulative effects. **Fens:** There would likely be increased vegetative cover, less exposure to aerobic conditions from stock trampling, and increased rates of organic matter accumulation. However, four of the six fens in the project area are currently experiencing cattle grazing and trampling which would continue. **Invasive Weeds:** Commercial pack stock, vehicles, clients, and wranglers would not inadvertently spread weed seeds as may currently be the case. Ground disturbance resulting from removal of pack stations and facilities could favor spread of weeds, but active revegetation would likely minimize weed invasion. The opportunity to discover new infestations in areas used by permittees would be reduced (training of permittees, their employees, and sometimes their clients results in increased early detection and rapid control of new weed infestations in remote areas)	**Rare Plants:** Individual plants of short-leafed hulsea, 3-ranked hump moss, Mono Hot Springs evening primrose, and subalpine fireweed, may be killed occasionally by hooves or grazing. Habitat may be altered by trampling or grazing by commercial pack stock; however, the effects of these activities would be minor, local, and short-term as protection for rare plants and their habitat are part of the Proposed Action. **Fens:** Alternative 2 would result in some incidental trampling and grazing in four meadows with fens where commercial pack stock would be authorized to graze; however, fens are to be avoided by stock. **Weeds:** Commercial pack stock, vehicles, clients, and wranglers would continue to act as possible weed vectors. However, weed management plans for each pack station would minimize the likelihood of weed introduction and spread. As education results in greater awareness over time, permittees, their employees, and/or their clients would be able to assist with the Forest's early detection program, allowing early control of any new weed infestations discovered in remote areas. No cumulative effects are expected for vegetation.	Same as Alternative 2 for rare plants, fens, and weeds, except that there would be a slight reduction in potential impacts within the Kaiser and Dinkey Lakes Wildernesses and the MWSR. Specifically, in the wildernesses, undiscovered rare plant populations would be less likely to be killed or to have their habitat affected, and the introduction of weeds would not be as likely over as large of an area as under Alternative 2. Overall, destination management within the wildernesses and MWSR does not make a significant difference, especially in the context of all of the other use occurring at these sites (private stock use, backpackers and other recreationists, other special use permittees, fuels and vegetation management projects, etc.). No cumulative effects are expected for vegetation.

Topic	Alternative 1	Alternative 2	Alternative 3
Grazing (See Section 3.3.4)	Vegetative, soil and hydrologic condition would not change from current condition in nine meadows that have not been previously grazed by commercial pack stock. Recovery to vegetation, soils and hydrologic function would occur in 12 meadows previously grazed by pack stock.	Vegetation would be disturbed and/or removed from grazing activities in 13 meadows. Soils would be disturbed from trampling, punching and chiseling to meadow soils and/or stream banks from hoof impacts in 13 meadows. Localized adverse effects to vegetation, soils and hydrologic function (changes to species composition, increased bare soil, soil compaction) may result from grazing activities, however, persistent negative effects are not expected. Standards and guidelines designed to minimize these effects to riparian resources would be applied. Cumulative effects are not expected although the potential for a cumulative effect exists where pack stock and grazing is authorized in the same location.	Same as Alternative 2 with the exception of destination management in the KAI AU, which has the potential to limit the effects of commercial pack stock grazing in one meadow.

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