

# CHAPTER 2 – ALTERNATIVES

## 2.1 Introduction

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This chapter describes and compares the alternatives considered for the SNF Travel Management FEIS. It describes the five alternatives considered in detail as well as those eliminated from detailed study. At the end of this chapter the alternatives and their environmental impacts are displayed in summary tables so they can be readily compared.

Based on the issues identified through public comment on the proposed action, the Forest Service developed three alternative proposals that achieve the purpose and need differently from the proposed action. In addition, the Forest Service is required to analyze a no action alternative. The proposed action, other action alternatives and no action alternative are described in detail below.

### 2.1.1 Terminology and Abbreviations

Terminology and abbreviations used to describe the alternatives are defined in Appendix F. Appendix F contains terminology and abbreviations as defined in the Travel Management Rule, Forest Service Manual (FSM) and Forest Service Handbook (FSH).

### 2.1.2 Chapter 2 Organization

The chapter is divided into four parts:

- Part 1 describes how the alternatives were developed.
- Part 2 presents the alternatives considered in detail.
- Part 3 presents the alternatives that were considered, but eliminated from detailed analysis. It includes the rationale for eliminating these alternatives.
- Part 4 compares the alternatives based on their environmental, social and economic consequences and includes a comparative display of the projected effects of the alternatives.

### 2.1.3 Maps

One map for each alternative can be found in Appendix K. In the electronic version of Appendix K (on CD and on the Web: <http://www.fs.us.fed/r5/sierra/projects/ohv> ), these maps have a zoom feature to aid the reader in discerning details. Also, Appendix L includes a crosswalk of each proposed road, motorized trail and area to its USGS quadrangle map.

## 2.2 Part 1 – Alternative Development

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The Forest Service used the significant issues listed in Chapter 1 to develop three alternatives to the proposed action (Alternatives 3, 4, and 5). The alternatives provide different approaches to:

- Fulfill the purpose and need for the project as described in Chapter 1, and
- Address the significant issues.

The Forest Service used different approaches to reduce or avoid effects on natural and cultural resources in the different alternatives. In alternatives that emphasize avoiding resource impacts and conflicts, those unauthorized routes that would likely cause impacts to resources are not proposed for addition to the NFTS, unless there was an overriding need or purpose for the route

and effects could be successfully mitigated. In contrast, alternatives that emphasize the need for providing access and motorized recreation add additional unauthorized routes to the NFTS—including some in higher risk or more sensitive areas—and propose additional mitigations to reduce effects.

In alternatives 2, 4, and 5, proposed NFTS additions were focused on access to key destinations, loops and connectors which provide longer riding time, and an increase the diversity of opportunities for different vehicle classes (ATVs, motorcycles, full-size 4WD).

## 2.2.1 Purpose and Need Emphases by Alternative

The following describes how each alternative meets the purpose and need described in Chapter 1.

**Alternative 1** does not meet the purpose and needs defined for the project.

**Alternative 2** meets the need to prohibit cross-country motor vehicle travel and resolving conflicts between national policy and the LRMP. This alternative meets the need for a diversity of travel (both through additions and changes to the NFTS), access to dispersed recreation, and review of NFTS seasons of use to a minimum level. Alternative 2 puts some emphasis on resource damage prevention and results in the greatest reduction in NFTS maintenance costs. It resolves the conflict between Forest Service national policy regarding motorized use on ML 1 roads and the LRMP.

**Alternative 3** meets the need to prohibit cross-country motor vehicle travel however it does not meet any of the other needs for the action.

**Alternative 4** emphasizes the need for prevention of resource damage while meeting the need to prohibit cross-country motor vehicle travel and resolving conflicts between national policy and the LRMP. Alternative 4 provides a moderate amount of recreation diversity and access moderately reduces NFTS maintenance costs and maximally implements season of use changes for the protection of wildlife.

**Alternative 5** meets the need to prohibit cross-country motor vehicle travel and resolves conflicts between national policy and the LRMP. It balances the need for prevention of resource damage while providing for maximized motorized recreation diversity and access. It moderately reduces NFTS maintenance costs and implements season of use changes to a high degree.

## 2.2.2 Refining Alternatives Submitted by the Public during Scoping and the DEIS Public Comment Period

During the 80-day public scoping process, alternative concepts were submitted for consideration by two main groups. One group primarily expressed concerns about ensuring adequate motorized recreation opportunities; the other was primarily focused on resource protection. The resulting alternatives incorporate these and other suggestions offered by the public.

Also important in this process was the information gathered by the Forest Service in their consultation and discussions with tribal representatives, local counties and Forest Service employees. State and Federal agencies advised the process through numerous informal contacts.

During the 75-day public comment period on the DEIS, comments received prompted the SNF to refine several items including: clarification of the description of alternatives, correction of road and data errors, and thoroughly reviewed, considered, and changed the actions required prior to designation on the MVUM.

Some DEIS commenters proposed designation of all routes currently used by motor vehicles unless it caused considerable effects. The proposal included employing mitigation measures to

the greatest extent possible in order to designate the maximum number of routes possible. The Forest Service is currently analyzing Alternative 5, which proposes to add the most miles (compared to the other alternatives) of motorized recreation opportunities by specifying mitigations to reduce adverse effects. Other DEIS commenters suggested that the SNF develop an alternative eliminating unauthorized routes that are redundant or of low recreational value. The recreational value of a route was considered in all action alternatives, although these considerations were given more or less weight depending on the overall objectives and emphasis of the alternative. This proposal has been incorporated into all action alternatives analyzed. In Alternative 5, for example, the emphasis was on adding more unauthorized routes to the system as roads and trails, focusing on routes which form loops or connectors or those which can be managed as motorized trails for different types of vehicles. Alternative 4 adds fewer miles of routes to the system by avoiding more routes with existing or potential resource concerns (this includes routes with known recreational value).

Some DEIS commenters suggested that alternatives be developed that maximize motorized recreation opportunities including options for motorcycles and ATVs, provide the ability to recreate on loops and in technical areas, and provide access to dispersed campsites. Alternative 5 was developed to maximize route additions based on public comments, placing particular emphasis on routes which provide access to key destinations, loops and connectors providing longer riding time, routes which increase the diversity of opportunities for different vehicle classes (ATVs, motorcycles, full-size four-wheel drive), and routes that provide semi-primitive riding experiences. Additionally in various alternatives, routes were added to provide access to key dispersed camping opportunities.

Some DEIS commenters suggested that the SNF designate use on routes and prescribe mitigation measures to address environmental issues, instead of not designating these routes because their use could result in unacceptable environmental effects. As described in section 2.3.6 of this chapter, *Design Features, Mitigation Measures and Preventative Measures*, Alternatives 2, 4 and 5 were designed to open routes to public use on the condition that prescribed mitigations are completed prior to designation (i.e., publication on the MVUM). Such mitigations are assigned based on the severity of the effect.

DEIS commenters suggested that an alternative be developed that was a balance between motor vehicle access, affordability and environmental stewardship. This was considered and Alternative 5 was developed and refined to achieve this balance.

Some DEIS commenters suggested that the SNF consider an alternative that would implement the provisions of Subpart A of the Travel Management Rule to identify the minimum road system needed for administration, utilization, and protection of NFS lands including closing existing NFTS roads and trails, changes in seasonal closure, changes in vehicle class and amending the LRMP to add trails in semi-primitive non-motorized areas. Although full implementation of Subpart A was beyond the scope of this EIS, alterations to the NFTS to make it compatible with the proposed designated system have been incorporated to a greater or lesser extent in Alternatives 2, 4 and 5 to give the decision maker several options to consider.

Some DEIS commenters suggested that an alternative be considered that adds no additional routes to the NFTS, adds more seasonal restrictions, closes ML 1 roads, and closes sensitive NFTS roads and trails (especially trails in the El Portal area and within roadless areas). This alternative has aspects of both Alternative 3 and Alternative 4 and therefore the effects of this proposed alternative are being analyzed.

Some DEIS commenters suggested considering an alternative that modifies Alternative 2 to restore existing NFTS roads into the system reducing illegal use and the long-term effects of

erosion. Alternatives 2, 4 and 5 were designed to incorporate changes to the NFTS to make it a more useful, environmentally sensitive and cost effective system.

Some DEIS commenters suggested that recreation opportunity would be maximized by changing the designation on unwarranted roads open to highway licensed and insured drivers of non-highway legal vehicles to open to all vehicles. Alternatives 1, 2, 3 and 4 all analyze 0 miles of roads open to highway licensed and insured drivers of non-highway legal vehicles. Alternative 5 analyzes 22 miles of roads open to highway licensed and insured drivers of non-highway legal vehicles while maximizing the number of roads changed from highway-legal vehicles only to all vehicles (154 miles) compared to the other alternatives.

## 2.3 Part 2 – Alternatives Considered in Detail \_\_\_\_\_

Four action alternatives (Alternatives 2, 3, 4 and 5) and a no action alternative (Alternative 1) are analyzed in detail in this FEIS. The no action alternative represents the continuation of cross-country travel where motor vehicle travel is allowed (See Figure 1-3). This alternative serves as a baseline for comparison among the alternatives and is required by the implementing regulations of NEPA.

The project area for the alternatives includes the NFS lands displayed in Figure 1- 2. The project area does not include private, State, or other Federal lands.

Each alternative assumes that adjacent Federal lands, such as those administered by the National Park Service and Bureau of Land Management, will be managed according to existing management plans and applicable federal laws. Each alternative also assumes that private lands will meet applicable State and Federal land use regulations.

Part 2 includes information about how prescriptive actions (mitigation measures and design features) were applied to avoid, reduce or eliminate potential adverse environmental effects, the expectations for monitoring, and road and trail maintenance common to all alternatives.

### Descriptions of the Alternatives

This section describes each of the five alternatives considered in detail. Alternative 1 is the no action alternative. Alternatives 2-5 are action alternatives. There are four key actions addressed in each alternative, they are:

1. **Cross-country Travel:** All of the action alternatives prohibit public motor vehicle travel off the NFTS (roads, motorized trails, all associated trailheads, parking /staging areas, and turnouts including parking within one vehicle length from the edge of road or motorized trail) by the public except as allowed by permit or other authorization (this prohibition would not apply to snowmobiles). The prohibition of cross-country motor vehicle travel is included in order to address the need to regulate motor vehicle use.
2. **Additions to the NFTS:** Additions to the NFTS are: **a.** roads, **b.** motorized trails, and **c.** areas. Alternatives 1 and 3 propose no additions (roads, motorized trails, and or areas) to the NFTS. Alternatives 2, 4, and 5 each propose a unique set of additions to the NFTS. Proposed additions to the NFTS would be designated on the MVUM as part of the NFTS. Designations (of roads and motorized trails) include the width of the road or trail surface, the necessary width for vehicles to pass safely without damaging resources or facilities. Designation of areas can be of two types: 1) areas are open to all vehicles (AV) and the designated acreage can be used for motorized recreation, and 2) parking/staging areas are open to highway-legal vehicles (HV) for parking and staging purposes. Designation also allows for parking a motor vehicle on the side of the road within one (perpendicular) vehicle length of the road edge,

when it is safe to do so and without causing damage to NFS resources or facilities, unless prohibited by state law, a traffic sign, or an order. Where prescriptive actions (design features and/or mitigation measures) are identified for a proposed road, trail, or area such actions must be completed prior to designation for public motor vehicle travel. Additions to the NFTS (including prescriptive actions) are displayed by route number in Appendix A.

3. **Changes to the NFTS:** Alternatives 1 and 3 make no changes to the NFTS. Alternatives 2, 4 and 5 make varying amounts of changes to the NFTS in the four categories described. Changes to the NFTS are displayed by road or motorized trail number in Appendix A.

- a. **Changes to vehicle class.** Vehicle class indicates the type of vehicle (passenger car, motorcycle, all-terrain vehicle, etc.) allowed to operate on a road or motorized trail. Because proposed changes in vehicle class for NFTS roads and motorized trails are primarily based on existing tread width and characteristics, this action will align current and intended management of these roads and motorized trails, and would not require actively changing the characteristics of the road or motorized trail (A comparison of changes proposed by alternative is found in Appendix A). Changes to vehicle class are:
  - Change from seasonally open to all vehicles (AV) to seasonally open to highway-legal vehicles (HV).
  - Change from road open to AV to motorized trail open to AV.
  - Change from road open to HV to open to AV. In this situation, both highway-legal vehicles and non-highway legal vehicles are allowed.
  - Change from road open to HV to open to HV and AV with HLO. In this situation, highway-legal vehicles are the norm and portions of the road also allow all vehicles that have highway licensed operators.
- b. **Changes to Season of Use.** The time of year the NFTS road or motorized trail is open may change based on compliance with the LRMP, mitigation of environmental effects, and/or administrative needs.
- c. **Changes to Closed Year-round.**
  - Some roads proposed to be closed year-round would be based on compliance with National Forest policy regarding public motorized use on ML 1 roads (FSH 7700.59 62.32). The policy states: “ML 1 roads have been placed in storage between intermittent uses. Appropriate traffic management strategies are ‘prohibit’ and ‘eliminate’ all traffic. These roads are not shown on motor vehicle use maps.” See purpose and need item 3.d. in Chapter 1, Section 1.3.
  - Some NFTS roads proposed to be closed year-round are related to Forest Service administrative needs. The action alternatives propose changes in public motorized access to NFTS roads currently used for the administration and management of the Forest, including Forest Service administrative facilities, authorized special uses, and legal rights of access.
  - Some NFTS roads proposed to be closed year-round are related to compliance with the LRMP. The action alternatives propose changes in public motorized access to NFTS roads currently available to the public to comply with resource protection measures required by the LRMP as amended. This action responds to the need to comply with the LRMP by prohibiting (closing year-round) public access on certain roads as listed in Appendix A.

- Roads proposed to be changed from closed year-round to seasonally open have been determined to meet recreational and other NFS needs.
  - d. **Changes to operational maintenance level (ML).** Some changes to the operational maintenance level on NFTS roads results in changes to vehicle class. The changes proposed are: change from current ML to a different ML or change from a road to a motorized trail.
4. **Two Non-significant LRMP Amendments.** Alternatives 2, 4 and 5 propose two non-significant LRMP amendments. For S&G #22, alternative 2 proposes fewer acres change to ROS classes than Alternatives 4 and 5. Alternatives 2, 4 and 5 propose the same changes for S&G #17.
- a. S&G # 22 Recreation- ROS Element Map: Adjust acres from Semi-Primitive Non-motorized ROS Class to Semi-Primitive Motorized ROS Class.
  - b. S&G # 17 Recreation- OHV: Changes to state “... *allow no cross-country OHV travel. Designate NFTS roads, motorized trails, and areas on the Forest which may be legally traveled with an OHV, as well as the allowed vehicle class, and any seasonal or other use restrictions.* .”

### 2.3.1 Alternative 1 – No Action

Alternative 1 provides a baseline for comparing the other alternatives. Under the no action alternative, current management consists of managing off-highway use as determined by the LRMP direction. Current LRMP direction guides the forest to develop a new OHV plan that designates an OHV route system to replace the 1977 Off Road Vehicle (ORV) Plan (USDA-FS 1991, 4.3.4 Recreation pp 4-3). Provisions of the 1977 ORV Plan remain in effect (until this travel management decision is implemented). The 1977 plan identifies areas where cross-country motor vehicle travel is prohibited (see Figure 1-3). In this alternative, 605,000 acres of National Forest System lands would remain open to cross-country motor vehicle travel. Current season of use (including roads closed year-round) management of the NFTS is defined under the SNF 1998 Road Closure Plan and implemented by Forest Order R5-83-3. To more accurately reflect the NFTS in this FEIS, modifications to the 1998 Road Closure Plan are incorporated into the NFTS. Modifications from 1998 to the present include road decommissioning, application of seasonal closures to some roads and administrative conversion of 56 miles of primitive rough graded NFTS roads to NFTS motorized trails. These modifications are incorporated into the GIS and INFRA databases to recognize roads which have historically been operated and maintained as part of the NFTS. This alternative continues to implement the 1998 Road Closure Plan as modified. Actions are listed in Table 2- 1.

In Alternative 1, no additions or changes would be made to the current NFTS (as modified) and no cross-country travel prohibition would be put into place. No non-significant LRMP amendments would be made. The Travel Management Rule would not be implemented and no MVUM would be produced. Motor vehicle travel by the public would not be limited to designated NFTS facilities, except within areas described in the 1977 ORV Plan and forest order. Unauthorized routes would continue to have no status or authorization as NFTS facilities.

The first column of Table 2- 1 (Alternative 1 by design component) describes the actions proposed in Alternative 1 and also provides information on the current management for each action. The second column (net result to NFTS) describes the resulting changes (if any) to the NFTS.

**Table 2- 1. Alternative 1 – Actions**

Notes: Except when x<1: miles and acres rounded to the nearest whole number; AV= all vehicles; HV= highway-legal vehicles only; MC= motorcycles only; ML= maintenance level; AV HLO= highway-legal vehicles and all vehicles with highway licensed operators

Alternative 1 by Decision Component	Net Result of Alternative 1 to NFTS
<b>1. Cross-country travel</b>	
No change from current management; cross-country travel is allowed (see Figure 1-3 where currently prohibited)	Continues (605,000 acres open to motorized cross-country travel).
<b>2. Additions to the NFTS</b> (appropriate season of use applied to all additions)	
<b>a. Trails added</b>	
No additions of motorized trails open to AV.	56 total miles of motorized trails open to AV.
No additions of motorized trails open to vehicles < 50”.	0.9 total miles of motorized trails open to vehicles < 50”.
No additions of motorized trails open to MC.	0 total miles of motorized trails open to MC.
<b>b. Roads added</b>	
No additions of roads open to HV.	524 total miles of roads open to HV.
No additions of roads open to AV.	1650 total miles of roads open to AV.
<b>c. Areas added</b>	
No addition of areas	Continues 605,000 acres open to motorized cross-country travel
<b>3. Changes to the NFTS</b> (appropriate season of use applied to all NFTS facilities)	
<b>a. Changes to Vehicle Class</b>	
<b>Roads open to HV:</b> No change from current management.	528 mi roads seasonally open to HV.
<b>Motorized trails open to AV:</b> No change from current management.	56 mi motorized trails seasonally open to AV.
<b>Motorized trails open to vehicles &lt;50”:</b> No change from current management.	0.9 mi motorized trails seasonally open to vehicles < 50”
<b>Roads open to AV:</b> No change from current management.	1650 mi roads seasonally open to AV
<b>Roads open to AV HLO:</b> No change from current management.	0 mi roads open to HV and AV with HLO
<b>b. Changes to Season of Use</b>	
<b>Roads with changes to season of use:</b> No change from current management.	447 mi roads seasonally open 1763 mi roads open year-round 236 mi closed year-round Total = 2447 mi NFTS roads (note: only 472 mi of roads have formal season of use closure, however many are seasonally closed due to snow or lower elevation locked gates)
<b>Motorized trails with change in season of use:</b> No change from current management.	22 mi motorized trails seasonally open 34 miles open year-round 0 miles closed year-round
<b>c. Changes to Closed year-round</b>	
<b>ML 1 roads:</b> No change from current management.	84 mi of ML 1 roads closed year-round 286 mi ML 1 open
<b>ML 2 roads:</b> No change from current management.	137 mi of ML 2 roads closed year-round 1359 mi ML 2 open
<b>ML 3-5 roads:</b> No change from current management.	14 mi ML 3-5 roads closed year-round 527 mi ML 3-5 open

Alternative 1 by Decision Component	Net Result of Alternative 1 to NFTS
<b>d. Other Changes* to NFTS Roads</b> *where changes =changes to ML (which in most cases changes allowed vehicle class). Note: changes to vehicle class are described fully under item 3a. above.	
<b>Other Changes to ML 1 roads:</b> No change from current management	286 mi ML 1 roads open 84 mi ML 1 roads closed
<b>Other Changes to ML 2 roads:</b> No change from current management	1359 mi ML 2 roads open 137 mi ML 2 roads closed
<b>Other Changes to ML 3-5 roads:</b> No change from current management	527 mi ML 3-5 roads open 14 mi ML 3-5 roads closed
<b>4. Non-significant LRMP Amendments</b>	
<b>a. Recreation- ROS Element Map (LRMP S&amp;G # 22)</b> No amendment to the LRMP.	S&G #22 would not be modified. 110,500 acres Semi-Primitive Non-Motorized ROS class
<b>b. Recreation- OHV (LRMP S&amp;G # 17)</b> No amendment to the LRMP.	S&G #17 would not be modified. S&G #17 states : "Open all ML 1 and 2 Roads for OHV use unless designated as closed. <i>Maintenance Level 3, 4 and 5 roads are closed to unlicensed OHV use unless designated as a combined use road.</i> "

## Seasons of Use

The season of use for NFTS roads, motorized trail and areas (including parking/staging areas) is based on reduction or avoidance of environmental effects, compliance with the LRMP, and/or administrative needs. Table 2- 2 displays these seasons of use under current management. Appendix A of this FEIS displays seasons of use for NFTS facilities.

**Table 2- 2. Alternative 1 – Seasons of Use**

Season of Use	Map Identifier	Season of Use	Map Identifier
15-June to 1-October	A	16-June to 30-April	L
1-August to 1-May	aa	30-May to 1-November	ll
1-July to 15-September	bb	1-May to 1-December	M
15-May to 15-September	cc	1-June to 1-November	Mm
1-July to 1-November	D	1-April to 1-January	N
30-November to 1-October	dd	15-July to 1-November	Oo
20-April to 1-October	ee	1-April to 1-December	Qq
1-June to 15-November	F	20-April to 1-December	Rr
21-May to 1-October	ff	30-June to 1-October	S
1-July To 1-October	gg	15-June to 15 September	Ss
20-May to 1-December	H	1-August to 1-July	T
1-July to 15-October	hh	20-April to 1-November	Yyy
15-August to 1-December	I	Closed Year Round	Z
1-February to 1-November	jj		
20-May to 1-November	kk		

## 2.3.2 Alternative 2 – Proposed Action

Alternative 2 entails the proposed changes to the NFTS and the prohibition of cross-country travel as described in the NOI published September 11, 2007 (Volume 72, Number 175) with some modifications. After further analysis and public input in response to the NOI, discrepancies in the published proposed action were identified. The proposed action has been modified to accurately reflect the proposed changes to the NFTS. These modifications are described below:

- Fourteen (14) NFTS roads were inaccurately inventoried as unauthorized routes. As a result, unauthorized routes: AE-32, KD-220, JH-02x, JH-56, JH-73, KD-19, KD-19a, ML404, SR-82, SR-82b, SV25 and TH-87 have been properly identified by their road number and are included in the NFTS.
- The NOI inaccurately described 6 miles of unauthorized routes as NFTS trail additions. In Alternative 2, they have been accurately described as additions to the NFTS roads.
- Five (5) unauthorized routes, totaling approximately 4 miles, were erroneously included in the proposed action (as published in the NOI). Unauthorized routes SV-4, JM-17z, JM-1y (Westfall analysis unit), TH-47z, (Globe analysis unit) and ES1 (Jose-Chawanakee analysis unit) were removed from the proposed action (Alternative 2) because they were not consistent with the LRMP for watershed or sensitive wildlife habitat reasons (See project record for further detail).
- Route names (e.g. Footman) that were used to identify unauthorized routes in the proposed action were not carried forward, rather, the ID numbers (e.g. TH-25w) were used to track and analyze unauthorized routes in this FEIS. A crosswalk of these route names to their route ID numbers is provided in Appendix L.
- The NOI proposed to convert those primitive rough graded roads known as OHV routes, (e.g. Star Lakes and Coyote, OHV Routes) to NFTS motorized trails. Because conversion of a road to a trail is an administrative action and not subject to NEPA analysis (because the vehicle class type would not change), SNF completed the conversion (by changing the status in the INFRA database) of 56 miles prior to publishing in the FEIS (See Transportation Section 3.2 for list of these).
- The NOI stated that no new roads were proposed to be added to the NFTS. However, because some of the unauthorized routes proposed to be added are more accurately defined as roads, 5 miles proposed to be added as motorized trails are now proposed to be added as roads
- The NOI included a table titled “NFS Roads to be managed as NFS Trails.” In the FEIS these ML 1 roads were addressed in the action “Changes to the NFTS.” Vehicle class would be changed on most of these NFTS roads from closed to all vehicles, to roads or motorized trails open to all vehicles.

Alternative 2 prohibits cross-country travel and proposes adding motorized trails, roads and an area to the NFTS. It proposes to make changes to the NFTS (vehicle class and season of use). Alternative 2 also proposes two non-significant LRMP amendments. The first column of Table 2-3 describes the summary of actions proposed in Alternative 2. The second column describes the resulting changes to the NFTS. Please see Appendix A for specific information on proposed additions and changes to the NFTS by alternative.

**Table 2- 3. Alternative 2 – Actions**

Notes: Except when x<1: miles and acres rounded to the nearest whole number; AV= all vehicles; HV= highway-legal vehicles only; MC= motorcycles only; ML= maintenance level; AV HLO= highway-legal vehicles and all vehicles with highway licensed operators

Alternative 2 by Decision Component	Net Result of Alternative 2 to NFTS
<b>1. Cross-country travel</b>	
Prohibit motorized cross-country travel. (allows parking one vehicle length off the NFTS unless posted otherwise.)	Motorized cross-country travel is prohibited on the SNF.
<b>2. Additions to the NFTS</b> (appropriate season of use applied to all additions)	
<b>a. Trails added</b>	
16 miles of motorized trails added to the current 56 mi of NFTS motorized trails open to AV (all trail class vehicles).	72 total miles of motorized trails open to AV.
20 miles of motorized trails added to the current 0.9 mi of NFTS motorized trails open to vehicles < 50".	21 total miles of motorized trails open to vehicles < 50".
3 miles of motorized trails added to the current 0 mi of NFTS motorized trails open to MC.	3 total miles of motorized trails open to MC.
<b>b. Roads added</b>	
0 miles of roads added to the current 524 mi of NFTS roads open to HV.	524 total miles of roads open to HV.
5 miles of roads added to the current 1650 NFTS roads open to AV (including trail class vehicles).	1655 total miles of roads open to AV.
<b>c. Areas added</b>	
There is 1 area (6 acres) added to the current 5 NFTS areas (75 acres) open to AV (including trail class vehicles).	6 total areas (81 acres) open to AV.
0 parking/staging areas (0 acres) added to the current 54 NFTS parking/staging areas open HV.	54 total areas (49 acres) open to HV.
<b>3. Changes to the NFTS</b> (appropriate season of use applied to all NFTS facilities)	
<b>a. Changes to Vehicle Class</b>	
<b>Roads open to HV:</b> 12 mi of roads currently open to AV changed to roads open to HV, and 11 mi of HV roads currently closed changed to open to HV.	Due to changes to the NFTS, there are 532 miles of roads open to HV*. (23 mi were changed, 510 mi remained open) * does not include roads added to the NFTS.
<b>Motorized trails open to AV:</b> 3 mi of currently closed (ML 1) or open to AV NFTS roads changed to motorized trails open to AV.	Due to changes to the NFTS, there are 59 miles of motorized trails open to AV*. (3 mi were changed, 56 mi remain open) * does not include motorized trails added to the NFTS.
<b>Motorized trails open to vehicles &lt;50":</b> 0.9 mi of NFTS roads currently open to AV changed to motorized trails open to vehicles < 50".	Due to changes to the NFTS, there are 5 miles of motorized trails open to vehicles < 50". (4 mi were changed) * does not include motorized trails added to the NFTS.

Alternative 2 by Decision Component	Net Result of Alternative 2 to NFTS
<p><b>Roads open to AV:</b> 12 mi of NFTS roads currently open to HV changed to roads open to AV, and there are 59 mi of NFTS roads currently closed to AV changed to open to AV roads.</p>	<p>Due to changes to the NFTS, there are 1461 miles of roads open to AV. (71 mi were changed, 1331 mi remained open) * does not include roads added to the NFTS.</p>
<p><b>Roads open to AV HLO:</b> 0 mi of NFTS road segments currently open to HV changed to road segments open to AV HLO.</p>	<p>Due to changes to the NFTS, there are 0 miles of road segments open to AV HLO.</p>
<p><b>b. Changes to Season of Use</b></p>	
<p><b>Roads with changes to season of use:</b> 898 mi of the 2447 mi of NFTS roads have a new or different season of use applied.</p>	<p>Due to changes to season of use on NFTS roads, there are 946 mi seasonally open, 1054 mi open year-round and 446 mi closed year-round for a total* of 2447 miles of NFTS roads. *does not include roads added to the NFTS.</p>
<p><b>Motorized trails with change in season of use:</b> 21 mi of the current 56 mi of NFTS motorized trails had a new or different season of use applied.</p>	<p>Due to changes to season of use on NFTS motorized trails, there are 39 mi seasonally open, and 17 mi open year-round for a total* of 56 miles of NFTS motorized trails. *does not include trails added to the NFTS.</p>
<p><b>c. Changes to Closed year-round</b></p>	
<p><b>ML 1 roads:</b> Of the current 372 mi ML 1 roads, 71 mi will remain closed and 197 mi will change from open to closed. The remaining ML 1 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>0 mi of ML 1 roads remain open (per FSH 7700.59 62.63)</p>
<p><b>ML 2 roads:</b> Of the current 1496 mi ML 2 roads, 78 mi will remain closed, 88 mi will change from open to closed, and 59 mi will change from closed to open. Some ML 2 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>1258 mi of ML 2 roads remain open.</p>
<p><b>ML 3-5 roads:</b> Of the current 541 mi ML 3-5 roads, 2 mi will remain closed, 5 mi will change from open to closed, and 11 mi will change from closed to open. Some ML 3-5 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>510 mi of ML 3-5 roads remain open.</p>
<p><b>d. Other Changes* to NFTS Roads</b> *where changes =changes to ML (which in most cases changes allowed vehicle class). Note: changes to vehicle class are described fully under item 3a. above.</p>	

Alternative 2 by Decision Component	Net Result of Alternative 2 to NFTS
<p><b>Other Changes to ML 1 roads:</b></p> <ul style="list-style-type: none"> <li>• 84 mi of currently closed ML 1 changed to ML 2 open</li> <li>• 13 mi currently open ML 1 changed to ML 2 open</li> <li>• 1 mi currently open ML 1 changed to ML 3-5 open</li> <li>• 1 mi currently open ML 1 changed to motorized trail open to AV</li> <li>• 4 mi currently open ML 1 changed to motorized trail &lt;50"</li> </ul>	<p>See item 3.c. for total ML 1 roads.</p>
<p><b>Other Changes to ML 2 roads:</b></p> <ul style="list-style-type: none"> <li>• 84 mi of currently closed ML 1 changed to ML 2 open</li> <li>• 13 mi currently open ML 1 changed to ML 2 open</li> <li>• 11 mi currently open ML 2 changed to ML 3-5 open</li> <li>• 1 mi currently open ML 2 changed to motorized trail open to AV</li> <li>• 12 mi currently open ML 3-5 changed to ML 2 open</li> <li>• 1 mi ML 3-5 closed to ML 2 open</li> </ul>	<p>See item 3.c. for total ML 2 roads.</p>
<p><b>Other Changes to ML 3-5 roads:</b></p> <ul style="list-style-type: none"> <li>• 1 mi of currently closed ML 1 changed to ML 3-5</li> <li>• 11 mi currently open ML 2 changed to ML 3-5 open</li> <li>• 12 mi currently open ML 3-5 changed to ML 2 open</li> <li>• 1 mi currently closed ML 3-5 changed to ML 2 open</li> </ul>	<p>See item 3.c. for total ML 3-5 roads.</p>
<p><b>4. Non-significant LRMP Amendments</b></p>	
<p><b>a. Recreation- ROS Element Map (LRMP S&amp;G # 22)</b>                      Amend the LRMP to remove 512 acres from the current 110,500 acres of Semi-Primitive Non-Motorized ROS Class, and add 512 acres to the current 60,800 acres of Semi-Primitive Motorized ROS Class on the ROS Element Map.</p>	<p>109,988 acres of Semi-Primitive Non-Motorized ROS Class, and 61,312 acres of Semi-Primitive Motorized ROS Class.</p>
<p><b>b. Recreation- OHV (LRMP S&amp;G # 17)</b>                      Amend the LRMP to remove the following sentence: "Open all Maintenance Level 1 and 2 roads for OHV use unless designated closed." and replace with: "Maintenance Level 2-5 roads are open for OHV use where designated on the MVUM." Replace the word "combined" with "mixed" in the following sentence: "Maintenance Level 3, 4, and 5 roads are closed to unlicensed OHV use unless designated as a combined use road."</p>	<p>LRMP S&amp;G #17 would state "... allow no cross-country OHV travel. Designate NFTS roads, motorized trails, and areas on the Forest which may be legally traveled with an OHV, as well as the allowed vehicle class, and any seasonal or other use restrictions."</p>

## Seasons of Use

The season of use for NFTS roads, motorized trails and areas (including parking/staging areas) is based on reduction or avoidance of environmental effects, compliance with the LRMP, and/or administrative needs. Table 2- 4 displays these seasons of use. Appendix A of this FEIS displays seasons of use for NFTS facilities.

**Table 2- 4. Alternative 2 – Seasons of Use**

Season of Use	Map Identifier
15-June to 1-October	A
15-July to 1-October	aaa
30-July to 1-October	B
15-June to 1-November	C
15-April to 1-November	ccc
1-July to 1-November	D
1-July to 15-October	ddd
1-August to 1-November	E
20-May to 15-October	eee
1-June to 15-November	F
1-May to 1-November	fff
20-May to 1-November	ggg
20-May to 1-December	H
July-1 to 15-October	hh
1-June to 1-November	hhh
15-August to 1-December	I
15-July to 1-November	jjj
20-May to 1-November	kk
1-May to 15-November	kkk
15-June to 1-May	L
20-May to 15-November	lll
1-May to 1-December	M

Season of Use	Map Identifier
1-April to 1-January	N
15-June to 15-November	nnn
20-April to 1-December	ppp
1-April to 1-December	qqq
20-April to 1-December	rr
16-June to 1-December	rrr
1-July to 1-December	sss
1-August to 1-July	T
20-April to 12-January	tt
31-July to 1-December	ttt
30-May to 15-September	uu
1-August to 1-December	uuu
20-April to 1-October	vv
30-September to 1-December	vvv
15-May to 1-October	ww
15-July to 15-November	www
20-May to 1-October	x
15-April to 15-December	xxx
20-June to 1-October	z
Closed Year Round	Z

### 2.3.3 Alternative 3

Alternative 3 responds to issues of impacts to natural and cultural resources and impacts to non-motorized recreational experience by prohibiting motorized cross-country travel without adding additional facilities to the NFTS. Alternative 3 meets the objective of prohibiting cross-country travel. This alternative also provides a baseline for comparing the impacts of other alternatives that propose changes to the NFTS in the form of new facilities.

Alternative 3 prohibits cross-country travel. No additions to the NFTS are proposed. No changes (vehicle class, season of use, changes to closed year-round, and changes to operational ML) would be made to the NFTS. No non-significant LRMP amendments would be made. The first column of Table 2- 5 describes the summary of actions proposed in Alternative 3. The second column describes the resulting changes (if any) to the NFTS. Please see Appendix A for a complete list of roads and comparison of actions by alternative.

**Table 2- 5. Alternative 3 – Actions**

Notes: Except when x<1: miles and acres rounded to the nearest whole number; AV= all vehicles; HV= highway-legal vehicles only; MC= motorcycles only; ML= maintenance level; AV HLO= highway-legal vehicles and all vehicles with highway licensed operators

Alternative 3 by Decision Component	Net Result of Alternative 3 to NFTS
<b>1. Cross-country travel</b>	
Prohibit motorized cross-country travel. (allows parking one vehicle length off the NFTS unless posted otherwise.)	Motorized cross-country travel is prohibited on the SNF.
<b>2. Additions to the NFTS</b> (appropriate season of use applied to all additions)	
<b>a. Trails added</b>	
No additions	56 total miles of motorized trails open to AV.
No additions	0.9 total miles of motorized trails open to vehicles < 50”.
No additions	0 total miles of motorized trails open to MC.
<b>b. Roads added</b>	
No additions	524 total miles of roads open to HV.
No additions	1650 total miles of roads open to AV.
<b>c. Areas added</b>	
No additions	5 total areas (75 acres) open to AV.
No additions	54 parking/ staging areas (49 acres)
<b>3. Changes to the NFTS</b> (appropriate season of use applied to all NFTS roads and trails)	
<b>a. Changes to Vehicle Class</b>	
<b>Roads open to HV:</b> No change from current management.	528 mi roads seasonally open to HV.
<b>Motorized trails open to AV:</b> No change from current management.	56 mi motorized trails seasonally open to AV.
<b>Motorized trails open to vehicles &lt;50”:</b> No change from current management.	0.9 mi motorized trails seasonally open to vehicles < 50”
<b>Roads open to AV:</b> No change from current management.	1650 mi roads seasonally open to AV
<b>Roads open to AV HLO:</b> No change from current management.	0 mi roads open to HV and AV with HLO
<b>b. Changes to Season of Use</b>	
<b>Roads with changes to season of use:</b> No change from current management.	447 mi roads seasonally open 1763 mi roads open year-round 236 mi closed year-round Total = 2447 mi NFTS roads (note: only 472 mi of roads have formal season of use closure, however many are in effect seasonally closed due to snow or lower elevation locked gates)
<b>Motorized trails with change in season of use:</b> No change from current management.	22 mi motorized trails seasonally open 34 miles open year-round 0 miles closed year-round
<b>c. Changes to Closed year-round</b>	
<b>ML 1 roads:</b> No change from current management.	84 mi of ML 1 roads closed year-round 286 mi ML 1 open
<b>ML 2 roads:</b> No change from current management.	137 mi of ML 2 roads closed year-round 1359 mi ML 2 open
<b>ML 3-5 roads:</b> No change from current management.	14 mi ML 3-5 roads closed year-round 527 mi ML 3-5 open

Alternative 3 by Decision Component	Net Result of Alternative 3 to NFTS
<b>d. Other Changes* to NFTS Roads</b> *where changes =changes to ML (which in most cases changes allowed vehicle class). Note: changes to vehicle class are described fully under item 3a. above.	
<b>Other Changes to ML 1 roads:</b> No change from current management	286 mi ML 1 roads open 84 mi ML 1 roads closed
<b>Other Changes to ML 2 roads:</b> No change from current management	1359 mi ML 2 roads open 137 mi ML 2 roads closed
<b>Other Changes to ML 3-5 roads:</b> No change from current management	527 mi ML 3-5 roads open 14 mi ML 3-5 roads closed
<b>4. Non-significant LRMP Amendments</b>	
<b>a. Recreation- ROS Element Map (LRMP S&amp;G # 22)</b> No amendment to the LRMP	S&G #22 would not be modified. 110,500 acres Semi-Primitive Non-Motorized ROS class
<b>b. Recreation- OHV (LRMP S&amp;G # 17)</b> No amendment to the LRMP	S&G #17 would not be modified.

## Seasons of Use

The season of use for NFTS roads, motorized trails and areas (including parking/ staging areas) is based on reduction or avoidance of environmental effects, compliance with the LRMP, and/or administrative needs. Because there is no change from current management in Alternative 3, Table 2- 2 (Alternative 1) displays seasons of use for Alternative 3. Appendix A of this FEIS displays seasons of use for NFTS facilities.

### 2.3.4 Alternative 4

Alternative 4 responds to issues of impacts to natural and cultural resources and impacts to non-motorized recreational experience by prohibiting motorized cross-country travel and adding motorized trails and roads in locations that avoid or mitigate for sensitive resources. Alternative 4 meets the objective of prohibiting cross-country travel. Seasonal and year-round road closures are applied where needed for resource protection.

Alternative 4 proposes to make changes to the NFTS (vehicle class, season of use, changes to closed year-round, and changes to operational ML). Alternative 4 also proposes two non-significant LRMP amendments. The first column Table 2- 6 describes the summary of actions proposed in Alternative 4. The second column describes the resulting changes to the NFTS. Please see Appendix A for specific information on proposed additions and changes to the NFTS by alternative.

#### Table 2- 6. Alternative 4 – Actions

Notes: Except when x<1: miles and acres rounded to the nearest whole number; AV= all vehicles; HV= highway-legal vehicles only; MC= motorcycles only; ML= maintenance level; AV HLO= highway-legal vehicles and all vehicles with highway licensed operators

Alternative 4 by Decision Component	Net Result of Alternative 4 to NFTS
<b>1. Cross-country travel</b>	
Prohibit motorized cross-country travel. (allows parking one vehicle length off the NFTS unless posted otherwise.)	Motorized cross-country travel is prohibited on the SNF.
<b>2. Additions to the NFTS</b> (appropriate season of use applied to all additions)	
<b>a. Trails added</b>	
20 miles of motorized trails added to the current 56 mi of NFTS motorized trails open to AV (all trail class vehicles).	76 total miles of motorized trails open to AV.
19 miles of motorized trails added to the current 0.9 mi of NFTS motorized trails open to vehicles < 50".	20 total miles of motorized trails open to vehicles < 50".
3 miles of motorized trails added to the current 0 mi of NFTS motorized trails open to MC.	3 total miles of motorized trails open to MC.
<b>b. Roads added</b>	
0 miles of roads added to the current 524 mi of NFTS roads open to HV.	524 total miles of roads open to HV.
9 miles of roads added to the current 1650 NFTS roads open to AV (including trail class vehicles).	1659 total miles of roads open to AV.
<b>c. Areas added</b>	
5 areas (34 acres) added to the current 5 NFTS areas (75 acres) open to AV (including trail class vehicles).	10 total areas (109 acres) open to AV.
6 parking/staging areas (3 acres) added to the current 54 NFTS parking/staging areas open to HV.	60 total areas (52 acres) open to HV
<b>3. Changes to the NFTS</b> (appropriate season of use applied to all NFTS roads and trails)	
<b>a. Changes to Vehicle Class</b>	
<b>Roads open to HV:</b> 7 mi of roads currently open to AV changed to roads open to HV, and there are 4 mi of HV roads currently closed changed to open to HV.	Due to changes to the NFTS, there are 486 miles of roads open to HV*. (11 mi were changed, 475 mi remained open) * does not include roads added to the NFTS.
<b>Motorized trails open to AV:</b> 2 mi of currently closed (ML 1) or open to AV NFTS roads changed to motorized trails open to AV.	Due to changes to the NFTS, there are 58 miles of motorized trails open to AV*. (2 mi were changed, 56 mi remain open) * does not include motorized trails added to the NFTS.
<b>Motorized trails open to vehicles &lt;50":</b> 7 mi of NFTS roads currently open to AV changed to motorized trails open to vehicles < 50".	Due to changes to the NFTS, there are 8 miles of motorized trails open to vehicles < 50". (7 mi were changed, 1 mi remains open) * does not include motorized trails added to the NFTS.
<b>Roads open to AV:</b> 25 mi of NFTS roads currently open to HV changed to roads open to AV, and there are 60 mi of NFTS roads currently closed AV roads changed to open to AV roads.	Due to changes to the NFTS, there are 1417 miles of roads open to AV*. (85 mi were changed, 1272 mi remained open) * does not include roads added to the NFTS.

Alternative 4 by Decision Component	Net Result of Alternative 4 to NFTS
<p><b>Roads open to AV HLO:</b> 0 mi of NFTS road segments currently open to HV changed to road segments open to AV HLO.</p>	<p>Due to changes to the NFTS, there are 0 miles of road segments open to AV HLO. (0 mi were changed)</p>
<p><b>b. Changes to Season of Use</b></p>	
<p><b>Roads with changes to season of use:</b> 1742 mi of the 2447 mi of NFTS roads have a new or different season of use applied.</p>	<p>Due to changes to season of use on NFTS roads, there are 1512 mi seasonally open, 383 mi open year-round and 552 mi closed year-round for a total* of 2447 miles of NFTS roads. *does not include roads added to the NFTS.</p>
<p><b>Motorized trails with change in season of use:</b> 43 mi of the current 56 mi of NFTS motorized trails had a new or different season of use applied.</p>	<p>Due to changes to season of use on NFTS motorized trails, there are 55 mi seasonally open, and 1 mi open year-round for a total* of 56 miles of NFTS motorized trails. *does not include trails added to the NFTS.</p>
<p><b>c. Changes to Closed year-round</b></p>	
<p><b>ML 1 roads:</b> Of the current 372 mi ML 1 roads, 73 mi will remain closed and 241 mi will change from open to closed. The remaining ML 1 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>0 mi of ML 1 roads remain open (per FSH 7700.59 62.63)</p>
<p><b>ML 2 roads:</b> Of the current 1496 mi ML 2 roads, 76 mi will remain closed, 129 mi will change from open to closed, and 61 mi will change from closed to open. Some ML 2 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>1221 mi of ML 2 roads remain open.</p>
<p><b>ML 3-5 roads:</b> Of the current 541 mi ML 3-5 roads, 10 mi will remain closed, 28 mi will change from open to closed, and 4 mi will change from closed to open. Some ML 3-5 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>475 mi of ML 3-5 roads remain open.</p>
<p><b>d. Other Changes* to NFTS Roads</b> *where changes =changes to ML (which in most cases changes allowed vehicle class). Note: changes to vehicle class are described fully under item 3a. above.</p>	

Alternative 4 by Decision Component	Net Result of Alternative 4 to NFTS
<p><b>Other Changes to ML 1 roads:</b></p> <ul style="list-style-type: none"> <li>• 11 mi of currently closed ML 1 changed to ML 2 open</li> <li>• 39 mi currently open ML 1 changed to ML 2 open</li> <li>• 0 mi currently open ML 1 changed to ML 3-5 open</li> <li>• 0.5 mi currently open ML 1 changed to motorized trail open to AV</li> <li>• 7 mi currently open ML 1 changed to motorized trail &lt;50"</li> </ul>	<p>See item 3.c. for total ML 1 roads.</p>
<p><b>Other Changes to ML 2 roads:</b></p> <ul style="list-style-type: none"> <li>• 39 mi of currently closed ML 1 changed to ML 2 open</li> <li>• 11 mi currently open ML 1 changed to ML 2 open</li> <li>• 7 mi currently open ML 2 changed to ML 3-5 open</li> <li>• 1 mi currently open ML 2 changed to motorized trail open to AV</li> <li>• 25 mi currently open ML 3-5 changed to ML 2 open</li> </ul>	<p>See item 3.c. for total ML 2 roads.</p>
<p><b>Other Changes to ML 3-5 roads:</b></p> <ul style="list-style-type: none"> <li>• 0 mi of currently closed ML 1 changed to ML 3-5</li> <li>• 7 mi currently open ML 2 changed to ML 3-5 open</li> <li>• 24 mi currently open ML 3-5 changed to ML 2 open</li> <li>• 0 mi currently closed ML 3-5 changed to ML 2 open</li> </ul>	<p>See item 3.c. for total ML 3-5 roads.</p>
<p><b>4. Non-significant LRMP Amendments</b></p>	
<p><b>a. Recreation- ROS Element Map (LRMP S&amp;G # 22)</b>          Amend the LRMP to remove 1,074 acres from the current 110,500 acres of Semi-Primitive Non-Motorized ROS Class, and add 1,074 acres to the current 60,800 acres of Semi-Primitive Motorized ROS Class on the ROS Element Map.</p>	<p>109,426 acres of Semi-Primitive Non-Motorized ROS Class, and 61,874 acres of Semi-Primitive Motorized ROS Class.</p>
<p><b>b. Recreation- OHV (LRMP S&amp;G # 17)</b>          Amend the LRMP to remove the following sentence: "Open all Maintenance Level 1 and 2 roads for OHV use unless designated closed." and replace with: "Maintenance Level 2-5 roads are open for OHV use where designated on the MVUM." Replace the word "combined" with "mixed" in the following sentence: "Maintenance Level 3, 4, and 5 roads are closed to unlicensed OHV use unless designated as a combined use road."</p>	<p>LRMP S&amp;G 17 would state "... allow no cross-country OHV travel. Designate NFTS roads, motorized trails, and areas on the Forest which may be legally traveled with an OHV, as well as the allowed vehicle class, and any seasonal or other use restrictions. "</p>

## Seasons of Use

The season of use for NFTS roads, motorized trails and areas (including parking/staging areas) is based on reduction or avoidance of environmental effects, compliance with the LRMP, and/or administrative needs. Table 2- 7 displays these seasons of use. Appendix A of this FEIS displays seasons of use for NFTS facilities.

**Table 2- 7. Alternative 4 – Seasons of Use**

Season of Use	Map Identifier	Season of Use	Map Identifier
15-June to 1-October	A	1-May to 15-December	K
30-July to 1-October	B	15-June to 1-May	L
15-June to 1-November	C	1-May to 1-December	M
1-July to 1-November	D	1-April to 1-January	N
1-August to 1-November	E	20-May to 1-April	R
30-May to 15-November	F	30-June to 1-October	S
20-May to 1-December	H	1-August to 1-July	T
15-August to 1-December	I	Closed Year Round	Z

### 2.3.5 Alternative 5

Alternative 5 responds to issues of impacts to motorized access and motorized use and ownership conflicts. This alternative prohibits cross-country travel and adds facilities (roads/trails areas) to the NFTS to provide access and recreation opportunity. Alternative 5 meets the objective of prohibiting cross-country travel. Seasonal and year-round road closures are applied where needed for resource protection.

Alternative 5 proposes to make changes to the NFTS (vehicle class, season of use, changes to closed year-round, and changes to operational ML). Alternative 5 also proposes two non-significant LRMP amendments. The first column of Table 2- 8 displays a summary of actions proposed in Alternative 5. The second column describes the resulting changes to the NFTS. Please see Appendix A for specific information on proposed additions and changes to the NFTS by alternative.

**Table 2- 8. Alternative 5 – Actions**

Notes: Except when x<1: miles and acres rounded to the nearest whole number; AV= all vehicles; HV= highway-legal vehicles only; MC= motorcycles only; ML= maintenance level; AV HLO= highway-legal vehicles and all vehicles with highway licensed operators

Alternative 5 by Decision Component	Net Result of Alternative 5 to NFTS
<b>1. Cross-country travel</b>	
Prohibit motorized cross-country travel. (allows parking one vehicle length off the NFTS unless posted otherwise.)	Motorized cross-country travel is prohibited on the SNF.
<b>2. Additions to the NFTS</b> (appropriate season of use applied to all additions)	
<b>a. Trails added</b>	
32 miles of motorized trails added to the current 56 mi of NFTS motorized trails open to AV (all trail class vehicles).	88 total miles of motorized trails open to AV.
32 miles of motorized trails added to the current 0.9 mi of NFTS motorized trails open to vehicles < 50".	33 total miles of motorized trails open to vehicles < 50".
6 miles of motorized trails added to the current 0 mi of NFTS motorized trails open to MC.	6 total miles of motorized trails open to MC.
<b>b. Roads added</b>	
0 miles of roads added to the current 524 mi of NFTS roads open to HV.	524 total miles of roads open to HV.
15 miles of roads added to the current 1650 NFTS roads open to AV (including trail class vehicles).	1665 total miles of roads open to AV.
<b>c. Areas added</b>	
10 areas (98 acres) added to the current 5 NFTS areas (75 acres) open AV (including trail class vehicles).	15 total areas (173 acres) open to AV.
10 parking/staging areas (7 acres) added to the current 54 NFTS parking/staging areas open HV.	64 total areas (49 acres) open to HV.
<b>3. Changes to the NFTS</b> (appropriate season of use applied to all NFTS roads and trails)	
<b>a. Changes to Vehicle Class</b>	
<b>Roads open to HV:</b> 7 mi of roads currently open to AV changed to roads open to HV, and 4 mi of HV roads currently closed changed to open to HV.	Due to changes to the NFTS, there are 375 miles of roads open to HV*. (11 mi were changed, 386 mi remained open) * does not include roads added to the NFTS.
<b>Motorized trails open to AV:</b> 5 mi of currently closed (ML 1) or open to AV NFTS roads changed to motorized trails open to AV.	Due to changes to the NFTS, there are 61 miles of motorized trails open to AV*. (5 mi were changed, 56 mi remain open) * does not include motorized trails added to the NFTS.
<b>Motorized trails open to vehicles &lt;50":</b> 7 mi of NFTS roads currently open to AV changed to motorized trails open to vehicles < 50".	Due to changes to the NFTS, there are 8 miles of motorized trails open to vehicles < 50". (7 mi were changed, 1 mi remains open) * does not include motorized trails added to the NFTS.

Alternative 5 by Decision Component	Net Result of Alternative 5 to NFTS
<p><b>Roads open to AV:</b> 154 mi of NFTS roads currently open to HV changed to roads open to AV, and 60 mi of NFTS roads currently closed AV roads changed to open to AV roads.</p>	<p>Due to changes to the NFTS, there are 1676 miles of roads open to AV*. (214 mi were changed, 1402 mi remained open) * does not include roads added to the NFTS.</p>
<p><b>Roads open to AV HLO:</b> 22 mi of NFTS road segments currently open to HV changed to road segments open to AV HLO.</p>	<p>Due to changes to the NFTS, there are 22 miles of road segments open to AV HLO. (22 mi were changed)</p>
<p><b>b. Changes to Season of Use</b></p>	
<p><b>Roads with changes to season of use:</b> 1688 mi of the 2447 mi of NFTS roads have a new or different season of use applied.</p>	<p>Due to changes to season of use on NFTS roads, there are 1569 mi seasonally open, 460 mi open year-round and 418 mi closed year-round for a total* of 2447 miles of NFTS roads. *does not include roads added to the NFTS.</p>
<p><b>Motorized trails with change in season of use:</b> 43 mi of the current 56 mi of NFTS motorized trails had a new or different season of use applied.</p>	<p>Due to changes to season of use on NFTS motorized trails, there are 55 mi seasonally open, and 1 mi open year-round for a total* of 56 miles of NFTS motorized trails. *does not include trails added to the NFTS.</p>
<p><b>c. Changes to Closed year-round</b></p>	
<p><b>ML 1 roads:</b> Of the current 372 mi ML 1 roads, 60 mi will remain closed and 123 mi will change from open to closed. The remaining ML 1 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>0 mi of ML 1 roads remain open (per FSH 7700.59 62.63)</p>
<p><b>ML 2 roads:</b> Of the current 1496 mi ML 2 roads, 76 mi will remain closed, 127 mi will change from open to closed, and 61 mi will change from closed to open. Some ML 2 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>1220 mi of ML 2 roads remain open.</p>
<p><b>ML 3-5 roads:</b> Of the current 541 mi ML 3-5 roads, 10 mi will remain closed, 28 mi will change from open to closed, and 4 mi will change from closed to open. Some ML 3-5 roads are changed to a different ML and/or vehicle class (see item 3.d.).</p>	<p>476 mi of ML 3-5 roads remain open.</p>
<p><b>d. Other Changes* to NFTS Roads</b> *where changes =changes to ML (which in most cases changes allowed vehicle class). Note: changes to vehicle class are described fully under item 3.a. above.</p>	

Alternative 5 by Decision Component	Net Result of Alternative 5 to NFTS
<p><b>Other Changes to ML 1 roads:</b></p> <ul style="list-style-type: none"> <li>• 25 mi of currently closed ML 1 changed to ML 2 open</li> <li>• 156 mi currently open ML 1 changed to ML 2 open</li> <li>• 0 mi currently open ML 1 changed to ML 3-5 open</li> <li>• 0.5 mi currently open ML 1 changed to motorized trail open to AV</li> <li>• 8 mi currently open ML 1 changed to motorized trail &lt;50"</li> </ul>	<p>See item 3.c. for total ML 1 roads.</p>
<p><b>Other Changes to ML 2 roads:</b></p> <ul style="list-style-type: none"> <li>• 156 mi of currently closed ML 1 changed to ML 2 open</li> <li>• 25 mi currently open ML 1 changed to ML 2 open</li> <li>• 7 mi currently open ML 2 changed to ML 3-5 open</li> <li>• 4 mi currently open ML 2 changed to motorized trail open to AV</li> <li>• 24 mi currently open ML 3-5 changed to ML 2 open</li> </ul>	<p>See item 3.c. for total ML 2 roads.</p>
<p><b>Other Changes to ML 3-5 roads:</b></p> <ul style="list-style-type: none"> <li>• 0 mi of currently closed ML 1 changed to ML 3-5</li> <li>• 7 mi currently open ML 2 changed to ML 3-5 open</li> <li>• 24 mi currently open ML 3-5 changed to ML 2 open</li> <li>• 0 mi currently closed ML 3-5 changed to ML 2 open</li> </ul>	<p>See item 3.c. for total ML 3-5 roads.</p>
<p><b>4. Non-significant LRMP Amendments</b></p>	
<p><b>a. Recreation- ROS Element Map (LRMP S&amp;G # 22)</b>          Amend the LRMP to remove 1,074 acres from the current 110,500 acres of Semi-Primitive Non-Motorized ROS Class, and add 1,074 acres to the current 60,800 acres of Semi-Primitive Motorized ROS Class on the ROS Element Map.</p>	<p>109,426 acres of Semi-Primitive Non-Motorized ROS Class, and 61,874 acres of Semi-Primitive Motorized ROS Class.</p>
<p><b>b. Recreation- OHV (LRMP S&amp;G # 17)</b>          Amend the LRMP to remove the following sentence: "Open all Maintenance Level 1 and 2 roads for OHV use unless designated closed." and replace with: "Maintenance Level 2-5 roads are open for OHV use where designated on the MVUM." Replace the word "combined" with "mixed" in the following sentence: "Maintenance Level 3, 4, and 5 roads are closed to unlicensed OHV use unless designated as a combined use road."</p>	<p>LRMP S&amp;G 17 would state "... allow no cross-country OHV travel. Designate NFTS roads, motorized trails, and areas on the Forest which may be legally traveled with an OHV, as well as the allowed vehicle class, and any seasonal or other use restrictions. "</p>

## Seasons of Use

The season of use for NFTS roads, motorized trails and areas (including parking/staging areas) is based on reduction or avoidance of environmental effects, compliance with the LRMP, and/or administrative needs. Table 2- 9 displays these seasons of use. Appendix A of this FEIS displays seasons of use for NFTS facilities.

**Table 2- 9. Alternative 5 – Seasons of Use**

Season of Use	Map Identifier	Season of Use	Map Identifier
15-June to 1-October	A	1-May to 15-December	K
30-July to 1-October	B	15-June to 1-May	L
15-June to 1-November	C	1-May to 1-December	M
1-July to 1-November	D	1-April to 1-January	N
1-August to 1-November	E	15-August to 1-January	O
30-May to 15-November	F	20-May to 1-April	R
20-May to 1-December	H	30-June to 1-October	S
15-August to 1-December	I	1-August to 1-July	T
1-September to 1-December	J	Closed Year Round	Z

### 2.3.6 Common to Alternatives 2, 4, and 5

#### Design Features, Mitigation Measures, and Preventative Measures

Site specific analysis identified the natural or cultural resource issues or concerns that drove application of mitigation measures (MM), design features (DF), and preventative measures (PM).

DFs are a prescriptive action needed to minimize, reduce or eliminate impacts on sensitive resources. They are incorporated as an integrated part of the action alternatives. A DF is an “action required prior to opening” and is required to be completed prior to designation on the MVUM.

MMs are a prescriptive action needed to minimize, reduce or eliminate impacts on sensitive resources and address specific policy or law requirements. They are incorporated as an integrated part of the action alternatives. MM is an “action required prior to opening” and is required to be completed prior to designation on the MVUM.

PMs are a prescriptive action needed to avoid causing an unacceptable resource affect. A PM is not an “action required prior to opening” and is not required to be completed prior to designation on the MVUM.

- These have been analyzed for their potential to reduce or eliminate effects on environmental resource issues associated with motor vehicle travel. These effects are disclosed in the resource sections of Chapter 3. All action alternatives incorporate prescriptive actions.
- Appendix A identifies which of these preventative measures (may be one or more) apply site-specifically to proposed additions to NFTS.

The following table (Table 2- 10) describes the prescriptive actions common to all alternatives.

**Table 2- 10. Prescriptive Actions Common to all Alternatives**

Prescriptive Action	Description of Prescriptive Action
<b>Grade road/trail</b>	Grading using mechanized equipment during period with adequate soil moisture to achieve compaction.
<b>Construct, drainage feature</b>	Construct waterbars, ditches, cross drains, dips, out sloping, or other water diversion feature designed to prevent water from flowing along the tread and causing erosion. Space drainage features for appropriate gradient and soils. Reference: LRMP S&G 128, Erosion Control Treatment Selection Guide. 0677 1203P; Reference: Riparian Restoration: Roads Field Guide. 0577 1801P
<b>Repair drainage feature</b>	Repair waterbars, ditches, cross drains, dips, out sloping, or other water diversion feature designed to prevent water from flowing along the tread and causing erosion. Space drainage features for appropriate gradient and soils. Reference: LRMP S&G 128, Erosion Control Treatment Selection Guide. 0677 1203P; Reference: Riparian Restoration: Roads Field Guide. 0577 1801P
<b>Armor road/trail drainage features</b>	Add rock or other armoring to protect ditches, cross drains, dips, etc from erosion (due to steep slopes and/or fine-textured soils).
<b>Install energy dissipaters at drainage structure outlets</b>	Provide sediment filter/energy dissipater using hand work by placing slash or rip-rap at outlets of over side drains, dips, or relief ditches.
<b>Stabilization of sections of trail tread</b>	Construct a causeway by reshaping tread and capping with rock (use geotextile, if needed). Reference: Managing Degraded Off-Highway Vehicle Trails in Wet, Unstable, and Sensitive Environments 0223–2821–MTDC
<b>Gully and rutting repairs</b>	Reconstruct or repair severely eroded road or trail tread and downslope erosion features by filling, reshaping, vegetating/mulching if necessary, and providing for adequate drainage to minimize future erosion. Fill gullies and ruts, including use of ¾ crushed base rock and compact Use of mechanized equipment during period with adequate soil moisture to achieve compaction.
<b>Minor realignment</b>	Avoid a resource concern by rerouting the road or trail within 15 meters (49 feet) of current alignment. Resource specialists will be consulted to confirm that implementation is consistent with all requirements specified in this analysis.
<b>Pad travel way</b>	Install rock (or other approved material) padding with separation fabric. Typically for protecting cultural resources.
<b>Install stream crossing structure</b>	Install crossing structure (bridge, bottomless arch, single or multiple culverts) that provides for proper channel function and passage of flow and aquatic organisms. Use of mechanized equipment is probable. Consult with District Hydrologist and Aquatic Species Biologist to ensure that implementation achieves these objectives.
<b>Install stream ford crossing</b>	Install a low water crossing (such as armoring with rock) that provides proper channel function and passage of flow and aquatic organisms. Consult with District Hydrologist and Aquatic Species Biologist to ensure that implementation achieves these objectives.
<b>Repair stream crossing structure</b>	Repair culvert, bridge/elevated crossing, arch pipe, low water crossing, high water crossing or other stream channel crossing structure. Work may be accomplished by hand or with equipment, as specified.

Prescriptive Action	Description of Prescriptive Action
<b>Armor approaches to stream crossing</b>	Install hardened surface (e.g. place rocks, cobbles and/or gravels; geoweb structure, concrete block pavers, compacted road base, etc) on approaches to stream channel crossing. Material will not be placed within the floodplain. Use of heavy equipment is probable. Consult with District Hydrologist or Forest Soils Program Manager to ensure that implementation achieves objectives.
<b>Remove fill from stream channel</b>	Remove fill previously placed in stream channel and redistribute on trail tread outside of channel, in order to provide for proper stream channel function (stream width/depth). Consult with District Hydrologist to ensure that implementation achieves this objective.
<b>Weed treatment, eradicate weeds</b>	Using manual (no herbicide) treatment of population for a specified period of time, depending on species.
<b>Brushing</b>	Reduce roadside or trailside brush to facilitate vehicle passage or to improve treadway or sight distance
<b>Remove downed trees from travel way</b>	Use of chainsaw to remove log from travel way; sections or entire log may be used as barrier if needed.
<b>Remove barrier</b>	Remove obstacles (large boulders or other obstacles) blocking route to prevent resource damage.
<b>Delineating boundaries for Open Areas and parking facilities</b>	Reference: Using Landscape Timbers to Mark Unpaved Parking Areas, T&D News: Winter 2002. 0271 2806
<b>Install barrier</b>	Large boulders or other imported material, placed in close proximity to road or designated route prism, designed to keep vehicle traffic on designated travel way. Reference: Vehicle Barriers: Their Use and Planning Considerations. 0623 1201P
<b>Install gate</b>	Install gate in order to control traffic use on the road or trail. Reference: Vehicle Barriers: Their Use and Planning Considerations. 0623 1201P
<b>Install signs</b>	Placement of one of a variety of educational and enforcement signs, aimed at limiting off-route travel, parking or other activities that could otherwise affect Forest resources. Reference: Revised Forest Service Guidelines for OHV Travel-Management Signs. 0623 2317; Sign Installation Guide 0371-2812-MTDC
<b>Implement an existing project, as specified</b>	An existing project, independent of this EIS and decision, will address identified needs for road/trail. (Described in the Implementation Guidelines). Although independent, these projects are tracked here because they meet a need identified during this analysis and must be implemented prior to the route being available for public use.

## Implementation of Prescriptive Actions

Priority scheduling of prescriptive actions is based on the following considerations:

1. Roads and trails that provide connectivity and important access for the transportation network or provide key public benefit and opportunities.
2. Roads and trails where the location or deteriorated condition is causing substantial effects to riparian, watershed, threatened, endangered or sensitive species, or significant cultural resources.
3. Prescriptive actions requiring relatively low-cost, easily implemented work (such as signage or simple barriers).

### 2.3.7 Monitoring

Monitoring is critical for evaluating the effectiveness of management decisions and the accuracy of analysis assumptions and conclusions. Monitoring of road, motorized trail and area (Open Areas, parking and staging areas) conditions is required and must meet regional and/or National standards as described in the LRMP and Forest Service policy. If monitoring determines additional resource damage is occurring, steps to prevent further damage must be taken. If the mitigation measures are not effective or are not possible, road or trail closures may be required and may require additional NEPA analysis. Monitoring requires establishment of a condition baseline prior to project implementation and gathers data for future management decisions. Below is a general description of the types of monitoring applied to proposed NFTS facilities.

**Aquatic Wildlife:** Monitoring for effectiveness of prescriptive actions for NFTS additions within USDI Fish and Wildlife Threatened (T), Endangered (E), Candidate (C) or Forest Service Sensitive (S) aquatic species occupied habitat. These habitats include stream, spring, meadow, riparian, and other sensitive habitats (see Aquatic Biota, Chapter 3). These habitats have the greatest potential for adverse effects to aquatic/riparian species from motor vehicle travel.

Some monitoring and design measures have been identified in the Soils and Water Resources sections that address potential risk to aquatic/riparian species occupied and suitable habitat from erosion, unstable stream channel crossings, and other physical hydrologic effects to aquatic/riparian habitat from motor vehicle use. Additional aquatic/riparian species monitoring would be identified if negative impacts are documented and prescriptive actions do not provide adequate protection to TES species or habitat, or if additional protection measures need to be included for LRMP, Federal, or State management direction consistency. If negative impacts are documented, appropriate mitigation measures would be developed and implemented to reduce or eliminate these impacts, and may require additional NEPA.

Monitoring of NFTS facilities may vary from year to year, and may coincide with monitoring requirements in the LRMP or with State funded OHV (off-highway vehicle) grants.

**Botanical Resources - Sensitive Plants:** Monitoring would occur along proposed additions to the NFTS identified as a high risk to sensitive plants (see Chapter 3 and Biological Evaluation in the project record). These areas have the greatest potential for adverse effects. Sites monitored may vary from year to year. If negative impacts are documented, appropriate mitigation measures would be developed and implemented. Impacts to plants will be measured in at least two ways, with the first being an observable reduction in plant health or numbers that can be derived from motor vehicle use. If reductions in health or numbers continue to occur for more than one year, then that triggers a review by SNF botanists and appropriate resource personnel for actions to be taken. The second metric will be the presence/absence of noxious weed species within 100 ft of the plant occurrence where there was none before. This presence/absence metric can also trigger a

review of the route or area by appropriate personnel. Another method that may be utilized is the observation of impacts to potential habitat for said plant species, as this diminishes the possibility of population expansion. Monitoring for sensitive plant species in the selected alternative will be done using historical survey data combined with current surveys and photo records.

**Cultural Resources:** All of the at-risk cultural sites in the area of potential effect of proposed additions to the NFTS were monitored to determine their current condition and risk of adverse effects (see Chapter 3 and the Archaeological Reconnaissance Reports in the project record). In addition to the specific application of monitoring (Appendix B), the Forest Service Policy for Section 106 of the NHPA Compliance in Travel Management: Designated Routes for Motor Vehicle Use (USDA-FS, 2005) requires the development and implementation of a monitoring plan within one year of route designation. This plan would include monitoring of all at-risk historic properties, including those where monitoring was prescribed and a percentage of other historic properties within the NFTS.

**Noxious Weeds:** Monitoring would occur on proposed additions to the NFTS identified as vulnerable to noxious weed spread (see Chapter 3) per the LRMP, as amended by the 2004 Sierra Nevada Forest Plan Amendment. These areas have the greatest potential for adverse effects. Sites monitored may vary from year to year. If negative impacts are documented, appropriate mitigation measures would be developed and implemented.

**Road and Trail Conditions:** Roads needing maintenance are identified by SNF staff and the public, and are then prioritized on the annual road maintenance plan. Trails may be monitored by both SNF employees and public volunteers in partnership with the SNF to document trail conditions, based on field observations and measurements. Information derived from this monitoring is used to update the maintenance schedule and assist in prioritizing maintenance needs.

**Soil and Water Resources:** The implementation and effectiveness of the specified prescriptive actions will be monitored using the USFS Pacific Southwest Region Best Management Practices Evaluation Program (BMPEP) protocols at randomly selected sites. In addition to randomly selected locations, monitoring will be conducted along proposed additions to the NFTS identified as a potentially higher risk for erosion due to increased motorized use after designation (see Appendix B). This monitoring will determine whether there is a need for additional BMPs to protect soil and watershed resources in the long term. The BMPEP protocols and California State OHV Commission Green-Yellow-Red monitoring protocol would be used to evaluate whether these trails are impacting soil or water resources. These evaluations were developed to monitor the condition and drainage features of road surfaces and road/stream crossings. Appropriate mitigation measures derived from monitoring results would be developed and implemented as needed and may require additional NEPA.

**Terrestrial Wildlife:** Monitoring would occur along proposed additions to the NFTS identified as at risk of noise disturbance to specific wildlife species (see Chapter 3). Sites monitored may vary from year to year and may coincide with monitoring of species populations under the conditions of the LRMP. If negative impacts are documented, appropriate mitigation measures would be developed and implemented.

Site specific monitoring requirements identified for proposed additions to the NFTS are described in Appendix B: Monitoring. Once implementation begins, more effective monitoring elements may be identified and implemented.

## Trail and Road Maintenance

Trail and road maintenance standards are described in Forest Service Policy documents. National quality standards for trails can be found in the Forest Service Handbook (FSH) 2309.18, section 15 and referenced in the Forest Service Manual (FSM) 2353.15. Road maintenance standards can be found in FSM 7730 and FSH 7709.58. Trail standards are fully described in Appendix G.

### Trail Maintenance Expectations

Several different types of equipment or methods could be employed to accomplish maintenance, including, but not limited to: trail tractor, installation of hardened surfaces, chainsaw and shovel work. A summary of the particular trail maintenance expectations for proposed trails in the project area are:

- Inspections and trail condition surveys to determine specific maintenance needs.
- Clearing vegetation to appropriate width for vehicle type. This practice provides for safety to the user and protects the tread and adjacent resources by discouraging unauthorized routes created around vegetation blocking the trail (e.g. downed tree).
- Reconstruction or rehabilitation of improvements (e.g. drainage structures, hardened tread, cribwalls or bridges) to protect the trail tread and the adjacent resources (e.g. cultural resources) or functions (e.g. stream channel).
- Installation of items such as barriers, directional and informational signing to delineate the trail where needed for user safety, prevention of expansion of trail tread and/or resource protection.
- Stabilize tread to allow for steep gradient (within trail standards per FSM) by installing improvements (e.g. block, geotech materials, etc).
- Minor realignment within 49 feet (15 meters) of existing centerline to allow for steep gradient (within trail standards per FSM).

### Road Maintenance Expectations

The SNF operates and maintains NFTS roads in a manner that meets road management objectives (RMOs) and provides for:

1. Safe and efficient travel;
2. Access for the administration, utilization and protection of NFS lands; and
3. Protection of the environment, adjacent resources and public investment.

RMOs are the compilation of the intent for a particular road resulting from all management decisions and operation requirement to meet those decisions. This information includes the description of the road, intended uses, physical requirements necessary to meet those uses, maintenance level and the specific operating periods for the road.

Roads are assigned a ML from 1 through 5 and are generally described as:

**ML 1** roads are closed year-round to all traffic and only open during a specific project. The only maintenance expected is to preserve the road investment and minimize adverse resource affects.

**ML 2** roads are open to use by high clearance vehicles. Passenger cars are allowed, but that use is not a maintenance consideration.

**ML 3** roads are open and maintained for travel by a prudent driver in a standard passenger car. Comfort and convenience is not a consideration. They must meet the Highway Safety Act standards.

**ML 4** roads are open and maintained for travel by standard passenger cars and provide a moderate degree of user comfort and convenience. They must meet the Highway Safety Act standards.

**ML 5** roads are open and maintained for passenger cars and provide high degree of user comfort, convenience and mobility. They must meet the Highway Safety Act standards.

A full description of these road MLs may be found in Appendix I.

Annually, the SNF develops a road maintenance plan to prioritize road maintenance activities within the current funding resources and needs of the SNF. Typically, roads required to meet the Highway Safety Act (ML 3 thru ML 5) are the higher priorities for attention.

## **Applying Maintenance Standards**

Typically, NFTS roads converted to trails, as well as unauthorized routes added to the NFTS as trails, already have characteristics and conditions that match with the vehicle class specified. This includes width, roughness and experiential attributes. Designation as a motorized trail will ensure that future management and maintenance actions will maintain desired trail characteristics over time.

In very few circumstances, (where unauthorized routes are added to enhance the recreation experience in response to public comments) characteristics of some proposed additions to the NFTS may need to be modified over time to match the specified vehicle class. The approach to management for development of trail characteristics generally includes signage and enforcement for the appropriate vehicle type, while allowing use and natural conditions to define the trail characteristics over time. Future management, if necessary, may include barriers to restrict the width of vehicles using a trail or changing the tread surface conditions to limit use to the appropriate trail vehicle. If future management proposes ground disturbing activities, appropriate site specific analysis will be conducted.

## **2.4 Part 3 – Alternatives Considered but Eliminated from Detailed Analysis**

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NEPA requires that Federal agencies rigorously explore and objectively evaluate all reasonable alternatives and briefly discuss the reasons for eliminating any alternatives or components of an alternative that were not developed in detail (40 CFR 1502.14). Based on NEPA case law, alternatives can be eliminated if the proposed alternative 1) does not achieve the purpose and need; 2) has substantially similar consequences as alternatives considered in detail; 3) is not significantly distinguishable from alternatives already being considered; 4) is infeasible; 5) is ineffective; 6) is inconsistent with basic policy objectives for the action; or 7) if the existing range of alternatives sets forth alternatives necessary to permit a reasoned choice.

Public comments and internal scoping that suggested alternatives or components of an alternative be considered but were subsequently eliminated from detailed study are described below. The explanation for the elimination of the alternative from further full analysis is also included.

## Designate all Inventoried Unauthorized Routes

This alternative proposed to designate, at a minimum, all of the unauthorized routes receiving current OHV use. In some cases commenters limited the designation to those routes that were not causing a “considerable adverse affect.” Others felt that the SNF should designate a minimum of 280 miles out of the 550 miles inventoried. Along the same lines, other commenters felt that the SNF should designate all existing routes including logging roads. Another similar proposal requested designation of the maximum number of historic unauthorized routes and re-open old existing trails that connect to worthwhile destinations.

**Rationale for elimination:** Alternative 5 maximizes route additions that meet the purpose and need of the action placing particular emphasis on routes which provide access to key destinations, loops and connectors which provide longer riding time; routes which increase the diversity of opportunities for different vehicle classes (ATVs, motorcycles, full-size four-wheel drive); and routes that provide semi-primitive riding experiences. An intended purpose and need of the action is to comply with the Travel Management Rule. The 2005 Travel Management Rule, 36 CFR Section 212, Subpart B, requires designation after consideration of the route’s effects on National Forest System natural and cultural resources, public safety, provision of recreational opportunities, access needs, conflicts among uses of NFS lands, the need for maintenance and administration of facilities and the availability of resources for that maintenance and administration.

This alternative was eliminated from further consideration as it required routes to be added to the NFTS that; 1) would have environmental effects beyond those considered acceptable given law, policy, and regulations guiding management of the SNF (i.e. designation would cause resource damage beyond that which was feasible to mitigate); 2) would result in a motorized trail system that would not be fiscally feasible to maintain given current and projected financial considerations; 3) are not worthwhile recreational experiences and would not meet the purpose of providing a diversity of motorized recreation opportunities or access to dispersed recreation opportunities; and 4) are inconsistent with basic policy objectives for the action as described in the prior paragraph.

Although the adjustment of this alternative to designate all routes currently used by OHV unless they cause “considerable effect” and maximize mitigation instead of closing routes may resolve the resource impacts concern, the budgetary constraints and lack of recreation experience values remain issues resulting in elimination of this alternative as explained above.

## Identify “Event Only” Routes and OHV Special use Permit Areas

This alternative suggested that the SNF only designate those routes open for events under the special use permit process.

**Rationale for elimination:** Identification of “event only” routes and special use permit areas is outside the scope of this analysis. Motor vehicle use off designated facilities may be authorized by a contract, easement, special use permit or other written authorization issued under Federal law or regulation (36 CFR 212.51(a)(8); FSM 7716.2). Proposals for OHV events on or off designated routes are authorized under special use permits that are considered separately based on the full scope of the proposal. Requests for special use authorizations are considered and analyzed consistent with Forest Service policy and the NEPA under documents which analyze the specifics of the request.

## Decommission NFTS Roads to Reduce Resource Impacts

This alternative proposed that the SNF decommission existing NFTS roads where unacceptable environmental effects are occurring including 502 miles of native surfaced NFTS roads with severe resource damage.

**Rationale for elimination:** The suggested alternative was eliminated from detailed study because it would not meet the purpose and need as described in Chapter 1. Decommissioning is the act of restoring (i.e. ripping, revegetation, physical closure) a road or trail back to natural conditions. Restoration work, including road decommissioning, erosion control, fuel treatment, stream restoration, etc. are prioritized on a landscape basis depending on available funding and personnel. Decommissioning NFTS roads is outside the scope of the purpose and need for this EIS.

## Alternative to Allow Cross-Country Travel for Wood Cutting Permittees and Licensed Hunters

This alternative proposed that wood cutting permittees and licensed hunters be allowed to travel cross-country.

**Rationale for elimination:** This alternative was not analyzed in detail because wood cutting permittees may cut wood in locations as designated by their permit. As wood cutting is done under a special use permit this permit will specify requirements for cross-country travel and therefore the cross-country travel is not “unmanaged.” Regulation of unmanaged cross-country travel is one aspect of the (consistency with) Travel Management Rule and therefore wood cutting is outside of the purpose and need of this document.

Licensed hunters would need to follow the regulations for cross-county travel. The variation in the alternatives already considered would provide a range of motorized hunting opportunities. Therefore this proposal has substantially similar consequences as alternatives considered in detail; is not significantly distinguishable from alternatives already being considered; and the existing range of alternatives sets forth alternatives necessary to permit a reasoned choice.

## Routes Considered in Previous NEPA Decisions

This alternative proposed that the SNF only consider designation of routes that have been previously analyzed under prior NEPA documents.

**Rationale for elimination:** This alternative would limit the inclusion of routes to a very few similar to Alternative 3. It was not analyzed in detail because it; 1) has substantially similar consequences as alternatives considered in detail; 2) is not significantly distinguishable from alternatives already being considered; and 3) the existing range of alternatives sets forth alternatives necessary to permit a reasoned choice.

## Add Eleven Routes that Interconnect Existing Miles of Motorized Trails

This alternative proposed that the SNF include eleven specific routes that provide connections between existing motorized trails.

**Rationale for elimination:** The SNF looked carefully at routes that connect existing motorized recreation opportunities. To the extent that the routes met the review criteria these routes have been included in at least one of the four action alternatives analyzed. This alternative proposing

these eleven specific routes was not analyzed in detail because it 1) has substantially similar consequences as alternatives considered in detail; 2) is not significantly distinguishable from alternatives already being considered; and 3) the existing range of alternatives sets forth alternatives necessary to permit a reasoned choice.

### **All NFTS Roads to Have Mixed Use on all NFTS Roads**

This alternative proposed that the SNF designate all NFTS roads as having mixed use.

**Rationale for elimination:** This alternative was not analyzed in detail because it presents a major safety hazard and therefore is considered infeasible.

### **No Closure of Maintenance Level (ML) 1 Roads**

This alternative proposed that the SNF leave all ML 1 roads open.

**Rationale for elimination:** As described in the purpose and need, this alternative is in direct conflict with Forest Service policy (FSH 7700.59 62.32) and the purpose and need of the action is to remedy this conflict. Therefore, this alternative was not analyzed in detail because it does not meet the purpose and need and it is inconsistent with basic policy objectives for the action.

### **Expand OHV Recreation Opportunities Consistent with Anticipated Growth of OHV Recreation**

This alternative proposed that the SNF expand the number of routes commensurate with the projection of future OHV use.

**Rationale for elimination:** This alternative was not analyzed in detail because it is speculative as to what the needs of future OHV recreation will be and the opportunity exists to continue to add routes to the NFTS as appropriate over time.

### **Alternative 2 plus Additional Wildlife Protections for Lahontan Cutthroat Trout**

This alternative proposed that the SNF take measures to protect wildlife with particular emphasis on the Lahontan cutthroat trout.

**Rationale for elimination:** This alternative was not analyzed in detail because Alternative 4 is highly protective of wildlife. This alternative has substantially similar consequences as Alternative 4 which was considered in detail; it is not significantly distinguishable from alternatives already being considered; and the existing range of alternatives sets forth alternatives necessary to permit a reasoned choice.

### **Alternative 4 and 5 While Omitting Year-round Road Closures**

This alternative proposed that the SNF analyze an alternative incorporating all aspects of Alternative 4 without including the year-round road closures.

**Rationale for elimination:**

The suggested alternative was eliminated from detailed study because it would not meet the purpose and need (i.e. item 3.c.) and would not respond to the criteria set out in Subpart B of the Travel Management Rule to consider impacts to natural and cultural resources, etc. as described in Chapter 1 of this FEIS. Also, this alternative would be in direct conflict with Forest Service policy to close (apply year-round closures) to ML roads to public use (FSH 7700.59 62.32).

## Alternative Proposed by the Stewards of the Sierra

This alternative proposed that the SNF develop an alternative that is essentially like Alternative 5 but includes some routes omitted from Alternative 5 and included in Alternative 2.

**Rationale for elimination:** This alternative was not analyzed in detail because of its similarities to Alternative 5 and Alternative 2. Therefore this alternative has substantially similar consequences as alternatives considered in detail; is not significantly distinguishable from alternatives already being considered; and the existing range of alternatives sets forth alternatives necessary to permit a reasoned choice.

## 2.5 Part 4 – Comparison of Alternatives \_\_\_\_\_

Chapter 3 describes the environmental consequences of the alternatives in detail. This section of Chapter 2 compares the alternatives by summarizing key differences between the alternatives.

## 2.5.1 Summary Comparison of Alternatives by Action

**Table 2- 11. Summary Comparison of Alternatives**

Notes: Except when x<1: miles and acres rounded to the nearest whole number; AV= all vehicles; HV= highway-legal vehicles only; MC= motorcycles only; ML= maintenance level; AV HLO= highway-legal vehicles and all vehicles with highway licensed operators

Current Management (Alt 1-affected environment)	Action Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Continues 605,000 acres open to motorized cross-country travel (includes parking one vehicle length off the NFTS unless posted otherwise.)	<b>1. Cross-country travel</b>	No change from current management; cross-country travel is allowed	Prohibit motorized cross-country travel (allows parking one vehicle length off the NFTS unless posted otherwise)	Prohibit motorized cross-country travel (allows parking one vehicle length off the NFTS unless posted otherwise)	Prohibit motorized cross-country travel (allows parking one vehicle length off the NFTS unless posted otherwise)	Prohibit motorized cross-country travel (allows parking one vehicle length off the NFTS unless posted otherwise)
	<b>2. Additions to the NFTS</b> (appropriate season of use applied to all proposed additions)					
	<b>a. Trails added</b>					
56 mi NFTS trails open to AV	Trails open to AV	No additions	16 mi added 72 mi total	No additions	20 mi added 76 mi total	32 mi added 88 mi total
0.9 mi NFTS trails open to vehicles < 50"	Trails open to vehicles < 50"	No additions	20 mi added 21 mi total	No additions	19 mi added 20 mi total	32 mi added 33 mi total
0 mi NFTS trails open to MC	Trails open to MC	No additions	3 mi added 3 mi total	No additions	3 mi added 3 mi total	6 mi added 6 mi total trails
	<b>b. Roads added</b>					
524 mi NFTS roads open HV	Roads open to HV	No additions	0 mi added 524 mi total	No additions	0 mi added 524 mi total	0 mi added 524 mi total
1650 mi NFTS roads open AV	Roads open to AV	No additions	5 mi added 1655 mi total	No additions	9 mi added 1659 mi total	15 mi added 1665 mi total roads

Current Management (Alt 1-affected environment)	Action Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
	<b>c. Areas added</b>					
5 Open Areas (75 acres)	Open Areas (open to AV)	No additions	1 area (6 acres) added 6 areas (81 acres) total	No additions	5 area (34 acres) added 10 areas (109 acres) total	10 area (98 acres) added 15 areas (173 acres) total
54 Parking/staging areas (49 acres)	Parking/staging areas (open to HV)	No additions	0 areas (0 acres) added 54 areas (49 acres) total	No additions	6 areas (3 acres) added 60 areas (52 acres) total	10 areas (7 acres) added 64 areas (49 acres) total
<b>3. Changes to the NFTS</b> (appropriate season of use applied to all NFTS roads and trails)						
	<b>a. Changes to Vehicle Class</b>	none	Total changes = 97 mi	none	Total changes = 104 mi	Total changes = 260 mi
528 mi roads seasonally open to HV	Change road from open AV to open HV  Change road from closed HV to open HV	No change from current management	12 mi open AV to open HV 11 mi closed HV to open HV 510 mi HV remain open 532 mi NFTS roads open to HV	No change from current management	7 mi open AV to open HV 4 mi closed HV to open HV 475 mi HV remain open 486 mi NFTS roads open to HV	7 mi open AV to open HV 4 mi closed HV to open HV 375 mi HV remain open 386 mi NFTS roads open to HV
56 mi motorized trails seasonally open to AV	Change road from closed (ML 1) or open AV to motorized trail open to AV	No change from current management	3 mi road to trail open AV 59 total mi trails open to AV	No change from current management	2 m road to trail open AV 58 total mi trails open to AV	5 mi road to trail open AV 61 total mi trails open to AV
0.9 mi motorized trails seasonally open to vehicles < 50"	Change road from open AV to motorized trail open to vehicles < 50"	No change from current management	4 mi road open AV to trail open vehicles <50" 5 total mi trail open to vehicles < 50"	No change from current management	7 mi road open AV to trail open vehicles <50" 8 total mi trail open to vehicles < 50"	7mi road open AV to trail open vehicles <50" 8 total mi trail open to vehicles < 50"

Current Management (Alt 1-affected environment)	Action Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
1650 mi roads seasonally open to AV	Change road from open HV only to road open to AV (mixed use)  Change road from closed to open to AV	No change from current management	12 mi open HV to open AV 59 mi closed AV to open AV 1331 AV remain open  1461 total mi NFTS roads open to AV	No change from current management	25 mi open HV to open AV 60 mi closed AV to open AV 1272 AV remain open  1417 total mi NFTS roads open to AV	154 mi open HV to open AV 60 mi closed AV to open AV 1402 AV remain open  1616 total mi NFTS roads open to AV
0 mi roads open to HV and AV with HLO	Change road from open to HV only to road open to AV HLO	No change from current management	0 mi NFTS roads open to AV HLO	No change from current management	0 mi NFTS roads open to AV HLO	22 mi NFTS roads open to AV HLO
<b>b. Changes to Season of Use</b>						
447 mi roads seasonally open 1763 mi roads open year-round 236 mi closed year-round Total = 2447 mi NFTS roads (note: only 472 mi of roads have formal season of use closure, however many are in effect seasonally closed due to snow or lower elevation locked gates)	Roads with change in season of use	No change from current management	898 mi changed  946 mi seasonally open 1054 mi open year-round 446 mi closed year-round  2447 total NFTS roads	No change from current management	1742 mi changed  1512 mi seasonally open 383 mi open year-round 552 mi closed year-round  2447 total NFTS roads	1688 mi changed  1569 mi seasonally open 460 mi open year-round 418 mi closed year-round  2447 total NFTS roads

Current Management (Alt 1-affected environment)	Action Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
22 mi motorized trails seasonally open 34 miles open year-round 0 miles closed year-round	Motorized trails with change in season of use	No change from current management	21 mi changed 39 mi seasonally open 17 mi open year-round 0 mi closed year-round 56 total mi motorized trails	No change from current management	43 mi changed 55 mi seasonally open 1 mi open year-round 0 mi closed year-round 56 total mi motorized trails	43 mi changed 55 mi seasonally open 1 mi open year-round 0 mi closed year-round 56 total mi motorized trails
	<b>c. Changes to Closed year-round (O = open; CI=closed)</b>		O to CI= 290 mi, CI to O= 70 mi		O to CI= 398 mi, CI to O= 65 mi	O to CI= 278 mi, CI to O= 65 mi
84 mi of ML 1 roads closed year-round 286 mi ML 1 open	Open ML 1 roads changed to closed ML 1 roads	No change from current management	71 mi ML 1 remain closed 197 mi ML 1 open to closed 0 mi remain open	No change from current management	73 mi ML 1 remain closed 241 mi ML 1 open to closed 0 mi remain open	60 mi ML 1 remain closed 123 mi ML 1 open to closed 0 mi remain open
137 mi of ML 2 roads closed year-round 1359 mi ML 2 open	Close and Open ML 2 roads changed to closed ML 2 roads	No change from current management	78 mi ML 2 remain closed 88 mi ML 2 open to closed 59 mi ML 2 closed to open 1258 mi ML 2 remain open	No change from current management	76 mi ML 2 remain closed 129 mi ML 2 open to closed 61 mi ML 2 closed to open 1221 mi remain open	76 mi ML 2 remain closed 127 mi ML 2 open to closed 61 mi ML 2 closed to open 1220 mi remain open
14 mi ML 3-5 roads closed year-round 527 mi ML 3-5 open	Close and Open ML 3-5 roads changed to closed ML 3-5 roads for administrative and resource protection needs per LRMP	No change from current management	2 mi ML 3-5 remain closed 5 mi ML 3-5 open to closed 11 mi ML 3-5 closed to open 509 mi ML 3-5 remain open	No change from current management	10 mi ML 3-5 remain closed 28 mi ML 3-5 open to closed 4 mi ML 3-5 closed to open 475 mi ML 3-5 remain open	10 mi ML 3-5 remain closed 28 mi ML 3-5 open to closed 4 mi ML 3-5 closed to open 476 mi ML 3-5 remain open

Current Management (Alt 1-affected environment)	Action Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
	<p><b>d. Other Changes* to NFTS Roads</b> *where changes =changes to ML (which in most cases changes allowed vehicle class). Note: changes to vehicle class are described fully under item 3.a. above.</p>		<p>All other changes = 250 mi</p>		<p>All other changes = 172 mi</p>	<p>All other changes = 436 mi</p>
<p>286 mi ML 1 roads open                      84 mi ML 1 roads closed</p>	<p>Changes* to ML 1 roads</p>	<p>No change from current management</p>	<p>13 mi ML 1 closed to ML 2 open                      84 mi ML 1 open to ML 2 open                      1.5 mi ML 1 to ML 3-5 open                      1 mi ML 1 to motorized trail open to AV                      4 mi ML 1 to motorized trail &lt;50"</p>	<p>No change from current management</p>	<p>11 mi ML 1 closed to ML 2 open                      39 mi ML 1 open to ML 2 open                      0 mi ML 1 to ML 3-5 open                      1 mi ML 1 to motorized trail open to AV                      7 mi ML 1 to motorized trail &lt;50"</p>	<p>25 mi ML 1 closed to ML 2 open                      156 mi ML 1 open to ML 2 open                      0 mi ML 1 to ML 3-5 open                      0.5 mi ML 1 to motorized trail open to AV                      7.5 mi ML 1 to motorized trail &lt;50"</p>

Current Management (Alt 1-affected environment)	Action Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
1359 mi ML 2 roads open 137 mi ML 2 roads closed	Changes* to ML 2 roads	No change from current management	84 mi ML 1 open to ML 2 open 13 mi ML 1 closed to ML 2 open 11 mi ML 2 open to ML 3-5 road 1.5 mi ML 2 open to motorized trail open to AV 12 mi ML 3-5 open to ML 2 open 1 mi ML 3-5 closed to ML 2 open	No change from current management	39 mi ML 1 open to ML 2 open 11 mi ML 1 closed to ML 2 open 7 mi ML 2 open to ML 3-5 road 1 mi ML 2 open to motorized trail open to AV 25 mi ML 3-5 open to ML 2 open	156 mi ML 1 open to ML 2 open 25 mi ML 1 closed to ML 2 open 7 mi ML 2 open to ML 3-5 road 4 mi ML 2 open to motorized trail open to AV 24 mi ML 3-5 open to ML 2 open
527 mi ML 3-5 roads open 14 mi ML 3-5 roads closed	Changes* to ML 3-5 roads	No change from current management	1 mi ML 1 open to ML 3-5 open 11 mi ML 2 open to ML 3-5 open 12 mi ML 3-5 open to ML 2 open 1 mi ML 3-5 closed to ML 2 open	No change from current management	0 mi ML 1 open to ML 3-5 open 7 mi ML 2 open to ML 3-5 open 25 mi ML 3-5 open to ML 2 open 0 mi ML 3-5 closed to ML 2 open	0 mi ML 1 open to ML 3-5 open 7 mi ML 2 open to ML 3-5 open 24 mi ML 3-5 open to ML 2 open 0 mi ML 3-5 closed to ML 2 open

Current Management (Alt 1-affected environment)	Action Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>4. Non-significant LRMP Amendments</b>						
110,500 acres Semi-Primitive Non-Motorized ROS class	<b>a. Recreation- ROS Element Map (LRMP S&amp;G # 22)</b> Adjust acres of Semi-Primitive Non-Motorized ROS to Semi-Primitive Motorized Elements on the ROS Element Map	No change from current management	Remove 512 acres from Semi-Primitive Non-motorized ROS Class. Add 512 acres to Semi-Primitive Motorized ROS Class.	No change from current management	Remove 1,074 acres from Semi-Primitive Non-motorized ROS Class. Add 1,074 acres to Semi-Primitive Motorized ROS Class.	Remove 1,074 acres from Semi-Primitive Non-motorized ROS Class. Add 1,074 acres to Semi-Primitive Motorized ROS Class.
S&G #17 includes these sentences: "Open all ML 1 and 2 Roads for OHV use unless designated as closed. <i>Maintenance Level 3, 4 and 5 roads are closed to unlicensed OHV use unless designated as a combined use road.</i> "	<b>b. Recreation- OHV (LRMP S&amp;G # 17)</b> Amend the LRMP	No change from current management	Amend the LRMP S&G #17 to state "... allow no cross-country OHV travel. Designate NFTS roads, motorized trails, and areas on the Forest which may be legally traveled with an OHV, as well as the allowed vehicle class, and any seasonal or other use restrictions."	No amendment to the LRMP	Amend the LRMP S&G #17 to state "... allow no cross-country OHV travel. Designate NFTS roads, motorized trails, and areas on the Forest which may be legally traveled with an OHV, as well as the allowed vehicle class, and any seasonal or other use restrictions "	Amend the LRMP S&G #17 to state "... allow no cross-country OHV travel. Designate NFTS roads, motorized trails, and areas on the Forest which may be legally traveled with an OHV, as well as the allowed vehicle class, and any seasonal or other use restrictions."

## 2.5.2 Summary Comparison of Alternatives by Environmental Effects

Table 2- 12 displays a comparison of all five alternatives, by environmental effects.

**Table 2- 12. Summary Direct and Indirect Effects of the Alternatives on Forest Resources**

Resource Area	Indicator	Alt 1 <sup>1</sup>	Alt 2	Alt 3	Alt 4	Alt 5
Transportation Facilities (page 3-15)	Annual maintenance cost for NFTS roads and trails	\$1,887,000	\$1,888,000	\$1,721,000	\$1,820,000	\$1,949,000
	Implementation costs (mitigation, signing, MVUM, etc)	\$95,000	\$477,000	\$110,000	\$481,000	\$857,000
Recreation Resources (page 3-31)	Miles of roads available for non-highway licensed vehicles	1741	1431	1741	1332	1513
	Miles of primitive roads managed as trails	41	41	41	41	41
	Miles of motorized trails available	57	103	57	108	139
	Acres of areas designated for motor vehicle use (Open Areas, parking/staging areas)	124	130	124	161	222
	Acres of land open to motorized cross-country travel	605,000	0	0	0	0
	Miles of unauthorized routes not receiving motorized use within ROS Class Semi-Primitive, Non-Motorized	0 miles	9.5 miles	10.3 miles	8.7 miles	8.7 miles

Resource Area	Indicator	Alt 1 <sup>1</sup>	Alt 2	Alt 3	Alt 4	Alt 5
Visual Resources (page 3-93)	Number of key viewsheds that are or have the potential to be affected by motor vehicle travel	6 key viewsheds; however, all 22 key viewsheds may potentially have negative effects on visual resources due to the continued proliferation of cross-country motor vehicle travel	0 key viewsheds; no negative effects on visual resources from all key viewsheds	0 key viewsheds; no negative effects on visual resources from all key viewsheds	0 key viewsheds; no negative effects on visual resources from all key viewsheds	0 key viewsheds; no negative effects on visual resources from all key viewsheds
Air Quality (page 3-134 )	Impacts to air quality due to pollutants of concern or public health due to naturally-occurring asbestos (NOA)	none	none	none	none	none
	Number of Routes in potential NOA terrain	157	8	0	8	8
	Miles	47	2.9	0	3.44	3.44
Cultural Resources (page 3-114)	Number of cultural resources at risk from ongoing use and of the total, the number with moderate or major severity of effect	236 total severity of effect not determined	6 total 4 sites with Standard Protection Measures applied to reduce moderate effects to negligible effects	0 total	12 total No moderate or major effects	26 total 10 sites with Standard Protection Measures applied to reduce moderate or major effects to negligible effects

Resource Area	Indicator	Alt 1 <sup>1</sup>	Alt 2	Alt 3	Alt 4	Alt 5
Soil Resource (page 3-144)	Miles of unauthorized routes available for motorized use <sup>2</sup> with high potential for adverse effects	8.5	4.58	0	0.5	1.6
	Miles of NFTS native surface roads (on sensitive soils ) open year-round	574	421	574	338	343
Water Resources (page 3-175)	Miles of unauthorized routes and acres of areas available for motorized use <sup>2</sup> in RCAs	156 mi 208492 acres	10 mi 3 acres	0 mi 0 acres	11mi 3 acres	22 mi 7 acres
	Number of stream crossings on unauthorized routes available for motorized use	2251	235	0	188	361
	Subwatersheds with Potential cumulative watershed effects (CWE Risk): Low Moderate High	15 5 5	9 2 2	21 3 1	16 2 0	17 3 2
Geologic Resources (page 3-166 )	Number of unauthorized routes (Alt 1) or added facilities that are within 0.5 miles of abandoned mine lands (AML)	612	34	0	4	20

Resource Area	Indicator	Alt 1 <sup>1</sup>	Alt 2	Alt 3	Alt 4	Alt 5
Botanical Resources (page 3-251)	Determinations for TES <sup>3</sup> species					
	No effect (TES)	10 S species	1 T species 1 E species 39 S species	1 T species 1 E species 41 S species	1 T species 1 E species 39 S species	1 T species 1 E species 37 S species
	May affect but is not likely to adversely affect (TE)	1 T species 1 E species	No species	No species	No species	No species
	May affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability (S) (*highest probability for negative effect)	35 S species	6 S species * <i>Peltigera hydrothyria</i>	4 S species	6 S species * <i>Yosemite lewisia</i>	8 S species * <i>Yosemite lewisia</i>
Noxious Weeds (page 3-300)	Number of noxious weed infestations within 200 ft of a proposed facility	Possible spread to all 605,000 acres and beyond	7	0	13	30
Terrestrial Wildlife (page 3-323)	Determinations for TES <sup>3</sup> species					
	No effect (TES)	No species	VELB, Bald eagle (BAEA), Willow flycatcher (WIFL)	VELB, BAEA, WIFL	VELB, BAEA, WIFL	VELB, BAEA
	May affect but is not likely to adversely affect (TE)	Valley Elderberry Longhorn beetle (VELB)	No species	No species	No species	No species

Resource Area	Indicator	Alt 1 <sup>1</sup>	Alt 2	Alt 3	Alt 4	Alt 5
Terrestrial Wildlife (continued)	May impact individuals, but is not likely to result in a trend toward Federal listing or loss of viability (S)	California spotted owl (CASPO), Northern Goshawk (NOGO), Great gray owl (GGO), American Marten (AMMA), Pacific Fisher (PAFI), Bald Eagle (BAEA), Willow flycatcher (WIFL), Western red bat (WERB), Pallid bat (PABA), Townsend's big eared bat (TOBE)	CASPO, NOGO, GGO, AMMA, PAFI, WERB, PABA, TOBE	CASPO, NOGO, GGO, AMMA, PAFI, WERB, PABA, TOBE	CASPO, NOGO, GGO, AMMA, PAFI, WERB, PABA, TOBE	CASPO, NOGO, GGO, AMMA, PAFI, WERB, PABA, WIFL, TOBE
Aquatic Biota (page 3-472)	Determinations for TES <sup>3</sup> species					
	No effect (TES)	No species	Lahontan cutthroat trout (LCT), California red-legged frog (CRLF)	LCT; CRLF; Foothill yellow-legged frog (FYLF); Relictual slender salamander (RSS); Mountain yellow-legged frog (MYLF); Western pond turtle (WPT); Yosemite toad (YT)	LCT	LCT
	May affect but is not likely to adversely affect (TE)	LCUT, CRLF	No species	No species	CRLF	CRLF

Resource Area	Indicator	Alt 1 <sup>1</sup>	Alt 2	Alt 3	Alt 4	Alt 5
	May affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability (S) (*highest probability for negative effect)	FYLF*; RSS*; MYLF*; WPT*; YT*	FYLF; RSS; MYLF; WPT; YT	No species	FYLF; RSS; MYLF; WPT; YT	FYLF; RSS; MYLF; WPT; YT

<sup>1</sup> Although public use of all existing unauthorized routes would be allowed in Alternative 1, none of the unauthorized routes would be added to the NFTS. Because these unauthorized routes would not be part of the NFTS, they would not have any status or authorization as NFTS facilities, nor would existing resource concerns be mitigated.

<sup>2</sup> Unless otherwise indicated, ‘miles of unauthorized routes available for motorized use’ refers to those unauthorized routes added to the NFTS in the action alternatives, not existing NFTS roads. For the no action alternative, this measure includes all unauthorized routes.

<sup>3</sup>T = Threatened, E = Endangered, S = Forest Service Sensitive