

## 3.3 Recreation Resources

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### 3.3.1 Introduction

Nearly all SNF visitors, regardless of the purpose for their visit, use the motorized transportation system to reach their destination. Making changes to the NFTS (e.g. adding facilities, prohibiting or allowing motor vehicle use by vehicle type or season of use) changes the diversity of motorized and non-motorized opportunities on the SNF. These visitors may be participating in motorized recreation or utilizing motor vehicles to access trailheads, facilities, destinations or geographic areas that are utilized for non-motorized recreational activities. This section of the Travel Management FEIS examines the extent to which the diversity of recreation opportunities are affected by the proposed action and alternatives and the extent to which alternatives are consistent with direction established in the LRMP, the Sierra Nevada Forest Plan Amendment (SNFPA) and the Travel Management Rule.

### Sierra National Forest LRMP Recreation Opportunity Spectrum

The LRMP provides goals for the recreation resource and requires a broad range of developed and dispersed recreation opportunities in balance with existing and future demand. For management and conceptual convenience, possible mixes or combinations of activities, settings and probable experience opportunities have been arranged along a spectrum or continuum. This continuum is called the Recreation Opportunity Spectrum (ROS) and planning for recreation opportunities using the ROS is conducted as part of Land and Resource Management Planning. The ROS provides a framework for defining the types of outdoor recreation the public might desire and identifies that portion of the spectrum a given National Forest might be able to provide. ROS is divided into six classes: Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Roded Natural, Rural and Urban.

The LRMP uses the ROS to define desired future conditions (USDA-FS 1991; Section 4.3.3, page 4-3); to establish recreation settings for a number of management prescriptions (pages 4-9 through 4-12); as forestwide standards and guidelines to maintain acreages in each ROS class (see S&G 22); to establish Management Area program emphasis (pages 4-38 through 4-56); and in defining monitoring and evaluation requirements (see page 5-4). The current ROS classes for the NF were mapped as part of the development of the LRMP in the mid 1980s. The current distribution of ROS classes is shown on the LRMP map, “Recreation Opportunity Class Objective Map” (USDA-FS 1991). The ROS boundaries shown on this map were digitized and used in the following analysis. The breakdowns of ROS classes on the SNF are demonstrated in Table 3- 7.

**Table 3- 7. Sierra National Forest ROS Classes**

ROS Class	Acres <sup>1</sup>	Percent of SNF
Primitive	500,800	37
Semi-Primitive Non-Motorized	110,500	8
Semi-Primitive Motorized	60,800	5
Roded Natural	548,700	41
Rural	124,800	9
Urban	90	0

<sup>1</sup>Source: Recreation Opportunity Class Objective Map, LRMP

## Effects Analysis Methodology

### Impacts Relevant to Recreation Include

1. The compatibility of proposed changes to the NFTS with LRMP recreation and OHV management prescriptions and ROS.
2. The impact of proposed changes to the NFTS on non-motorized (i.e., quiet) recreation (dust, noise, use conflicts).
3. The amount and diversity of motorized recreation opportunity.
4. The amount of motorized access to dispersed recreation.
5. The impact of proposed changes to the NFTS on neighboring private and Federal lands (dust, noise, use conflicts).
6. Impacts to natural and cultural resources.

### Assumptions Specific to Recreation Analysis

1. The prohibition of cross-country travel is not a change to ROS (Semi-primitive Motorized for example); it is simply a prohibition within that ROS 'zone' for motorized travel off of designated facilities.
2. The change from an open to cross-country travel condition to a cross-country travel prohibited condition will reduce the availability of acreage for both motorized recreation as well as motorized access to dispersed recreation activities.
3. The change from an open to cross-country travel condition to a cross-country travel prohibited condition will increase the availability of acreage for non-motorized recreation as well as non-motorized access to dispersed recreation activities.
4. Proposed additions to the NFTS will have a beneficial effect on motorized recreation opportunities by providing a variety of trail riding experiences and increasing the amount of motorized recreation opportunities (loops and connectors).
5. The SNF National Visitor Use Monitoring (NVUM) report accurately expresses the most popular motorized and non-motorized recreation activities for use in this analysis.
6. Overall changes in the NFTS that require recreation-related non-significant LRMP amendment(s) will result in corresponding changes in the net Semi-primitive Non-motorized ROS class acres available on the SNF.
7. The area of influence (dust, noise) of motorized use on populated areas or quiet recreation opportunities is 1/2 mile from associated boundaries (e.g. wilderness, Research Natural Areas, property line, urban limit line).
8. The majority of the motorized public use occurring on NFS land is occurring within the NFTS based on observation.
9. Each unauthorized route added to the NFTS as a road is for the purpose of accessing dispersed recreation. In addition, there are unauthorized routes added to the NFTS as motorized trails for the purpose of accessing dispersed recreation. In many instances, multiple sites may be accessed through the addition of these routes to the system.
10. Impacts to natural and cultural resources will be analyzed in their respective sections.

## Data Sources

1. LRMP for distribution of ROS classes
2. National Visitor Use Monitoring Results
3. GIS for data queries (ROS)
4. Sierra National Forest 1977 Off-Road Vehicle Plan

## Recreation Indicator Measures

Indicator measures are intended to address how each alternative as the sum total of its proposed actions respond to the LRMP, significant issues identified in scoping and Subpart B of the Travel Management Rule: whether the motorized recreation opportunity conflicts with other recreation opportunities, specifically non-motorized opportunities; the proximity of motor vehicle use to populated areas or neighboring private and Federal lands; the quality of the motorized recreation experience; and the quality of motorized access to dispersed areas for both motorized and non-motorized uses. It also responds to the diversity of motorized access available on the SNF.

For analyzing the effects of changes to the NFTS by vehicle class and season of use, as well as the addition of unauthorized routes to the NFTS as roads, indicator measures were used. Mileage available for each class of vehicle is useful in analyzing the ability of NFS visitors to travel around the forest and enjoy motorized recreation opportunities and access non-motorized recreation opportunities, such as trailheads and dispersed recreation activities (hunting, fishing and camping). The SNF has determined that access to these opportunities is important based on both NVUM data and public scoping for this project. Mileage for motorized recreation is an indicator of the number and types of experiences available for motorcycles, ATVs and four-wheel drive vehicles in each alternative. The changes to motorized mileages can be used to interpret the level of change in opportunities for motorized and non-motorized visitors. Proposed seasonal closures relate the months that motorized recreation will not be allowed on designated roads, trails or areas and, thus minimizing conflicts between motorized and non-motorized uses during certain times of the year. Also, the effect on non-motorized recreation activities that are accessed by native surface roads is considered. Number of acres located 1/2 mile away from roads, trails and boundaries are used to analyze the opportunity for non-motorized and quiet recreation on the SNF. Finally, to determine the amount of dispersed recreation access provided under each alternative, a method was applied that assumed a minimum of one site is accessed by each road or motorized trail (in many instances multiple sites are accessed, but one site is used as a proxy).

### Measurement Indicator 1: ROS Compatibility

**Description:** This measurement indicator looks at the impact of proposed changes to the NFTS on ROS.

**Method:** Number of ROS acres in each class under each alternative and number of required non-significant ROS LRMP amendments (and or any associated changes to LRMP recreation and motor vehicle use management prescriptions) displayed by associated acreage changes in the LRMP by alternative. Note the minor changes in Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized as compared with Table 3- 7.

**Table 3- 8. Number of ROS Acres in Each Class by Alternative**

ROS Class	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Primitive	500,800	500,800	500,800	500,800	500,800
Semi-Primitive Non-Motorized	110,500	109,988	110,500	104,927	104,927
Semi-Primitive Motorized	60,800	61,312	60,800	66,373	66,373
Roaded Natural	548,700	548,700	548,700	548,700	548,700
Rural	124,800	124,800	124,800	124,800	124,800
Urban	90	90	90	90	90

\*A non-significant ROS LRMP amendment is a component of Alternatives 2, 4, and 5.

## Measurement Indicator 2: Non-motorized Recreation Opportunity

**Description:** This measurement indicator looks at the impact of proposed additions and changes to the NFTS on non-motorized recreation (dust, noise, use conflicts). It also addresses the opportunity for quiet recreation issue.

**Method:** Number of acres outside 1/2 mile of an area where motorized use is allowed (designated roads, trails and areas in the NFTS that would result under each alternative). This method was determined through a literature review of sound studies and reports. These include (1) Martin (2005) “California Off-Highway Vehicle Noise Study: A Report to the California Legislature as Required by Public Resources Code Section 5090.32 (0);” (2) Pilcher and Turina (2006) “Protecting Natural Sounds in National Parks: Soundscape Workshop Visitor Experience and Soundscapes;” and (3) Ouren et al (2007), “Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands: A Literature Synthesis, Annotated bibliographies, Extensive Bibliographies and Internet Resources.”

To compare the opportunities for recreational experiences beyond the immediate influence of roads or motorized trails in each alternative, a 1/2 mile buffer was applied to all roads and motorized trails and the acreage outside of this buffer calculated. This buffer was selected in part because California noise limits require off-highway vehicles manufactured after January 1, 1998 to be no louder than 96 decibels at a distance of 20 inches. At 1/4 mile, the 96 decibels is perceived by non-motorized recreationists as a level comparable to rural residential areas. If one considers additional noise reduction due to varied topography and the presence of dense vegetation, the perception of 96 decibels at 1/4 mile drops to approximately the level of comfortable conversation. The 1/2 mile buffer used for the analysis represents an estimate of the limits of severe engine noise impacts and provides a reference point to enable the comparison of the different alternatives.

Historically the SNF has been zoned for motor vehicles access (1977 ORV Plan) and would not be considered as an area for quiet recreation. The data for Alternative 1 is based on continuing cross-country travel in the area identified in Figure 1-3.

**Table 3- 9. Acreage Outside 1/2 mile of Proposed Additions to the NFTS as a Measurement Indicator of Acreage Available for Quiet Recreation and Non-Motorized Activities without the Potential for Use Conflicts with Motor Vehicles**

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Acreage Available	32,980	70,988	71,063	70,677	70,395
Total Mileage in Alternative	0	44	0	51	85

### Measurement Indicator 3: Motorized Recreation Opportunity

The LRMP identifies a goal to provide a broad range of recreation opportunities in accord with identified needs and demands (USDA-FS 1991, p. 4-1). Public comment and motorized participation rates clearly indicate a need for a wide range of opportunities. Providing sufficient mileage of roads and motorized trails to meet current and expected motorized needs is important to the success of any motorized transportation system.

Motorized trails offer a unique motorized recreation opportunity. Public comment from off-highway vehicle recreationists indicated a demand for designated motorized trail opportunities for full size vehicles and trails less than 50 inches wide for ATV quads and motorcycles.

In addition, public comment was received identifying the impacts to natural and cultural resources. These comments requested specific unauthorized routes to not be part of the designated system.

This measurement indicator responds to proposals in the alternatives to add currently unauthorized routes to the NFTS and make changes to the NFTS (for example vehicle class and seasons of use). Seasons of use are, for the most part, designed to provide for the habitat needs of sensitive species.

**Description:** This measurement indicator looks at the impact of proposed changes to the NFTS to motorized recreation opportunities by alternative.

**Method:**

**Areas:** Number of acres available by vehicle class and season of use.

**Roads:** Number of miles available by vehicle class and season of use.

**Trails:** Number of miles available by vehicle class and season of use.

**Quality of Trail Experience:** Number of miles by Trail class and degree of difficulty.

**Table 3- 10. Road Mileage Open to the Public Forestwide by Alternative (Class of Vehicle and Season of Use)**

Class of Vehicle	Season of Use		Alt 1 and 3 (miles)	Alt 2 (miles)	Alt 4 (miles)	Alt 5 (miles)
	From	To				
Open to All Vehicles	Year-round		1402.3	804.0	280.4	294.8
Open to Highway-legal Vehicles Only	Year-round		365.3	251.2	101.4	170.1
Closed to All Vehicles	Year-round		236.0	446.0	552.0	418.3
Open to All Vehicles	1-Apr	1-Jan	6.4	6.4	18.7	19.4
Open to Highway-legal Vehicles Only	1-Apr	1-Jan	12.2	12.2	0.4	0.4
Open to All Vehicles	1-Apr	1-Dec	9.6	0.0	0.0	0.0
Open to Highway-legal Vehicles Only	1-Apr	1-Dec	16.2	0.0	0.0	0.0
Open to All Vehicles	1-Apr	1-Dec	0.0	18.8	0.0	0.0
Open to Highway-legal Vehicles Only	15-Apr	1-Nov	0.0	0.4	0.0	0.0
Open to All Vehicles	15-Apr	15-Dec	0.0	3.8	0.0	0.0
Open to All Vehicles	20-Apr	12-Jan	0.0	0.6	0.0	0.0
Open to All Vehicles	20-Apr	1-Oct	15.2	0.0	0.0	0.0
Open to All Vehicles	20-Apr	1-Oct	0.0	0.8	0.0	0.0
Open to All Vehicles	20-Apr	1-Nov	0.5	0.0	0.0	0.0

Class of Vehicle	Season of Use		Alt 1 and 3 (miles)	Alt 2 (miles)	Alt 4 (miles)	Alt 5 (miles)
	From	To				
Open to All Vehicles	20-Apr	1-Dec	0.0	167.5	0.0	0.0
Open to Highway-legal Vehicles Only	20-Apr	1-Dec	0.0	63.7	0.0	0.0
Open to All Vehicles	20-Apr	1-Dec	55.7	43.0	0.0	0.0
Open to Highway-legal Vehicles Only	20-Apr	1-Dec	87.1	64.2	0.0	0.0
Open to All Vehicles	1-May	1-Nov	0.0	0.6	0.0	0.0
Open to Highway-legal Vehicles Only	1-May	1-Nov	0.0	1.7	0.0	0.0
Open to Highway-legal Vehicles Only	1-May	15-Nov	0.0	0.7	0.0	0.0
Open to All Vehicles	1-May	1-Dec	52.4	53.6	739.9	819.5
Open to Highway-legal Vehicles Only	1-May	1-Dec	12.5	16.0	235.1	167.3
Open to All Vehicles	1-May	15-Dec	0.0	0.0	11.7	12.0
Open to Highway-legal Vehicles Only	1-May	15-Dec	0.0	0.0	11.2	11.2
Open to Highway-legal Vehicles Only	15-May	15-Sep	0.2	0.0	0.0	0.0
Open to Highway-legal Vehicles Only	15-May	1-Oct	0.0	0.8	0.0	0.0
Open to Highway-legal Vehicles Only	20-May	1-Apr	0.0	0.0	3.5	3.5
Open to All Vehicles	20-May	1-Oct	1.9	0.0	0.0	0.0
Open to All Vehicles	20-May	1-Oct	0.0	1.2	0.0	0.0
Open to Highway-legal Vehicles Only	20-May	1-Oct	0.0	0.6	0.0	0.0
Open to All Vehicles	20-May	15-Oct	0.0	0.9	0.0	0.0
Open to All Vehicles	20-May	1-Nov	22.8	6.9	0.0	0.0
Open to Highway-legal Vehicles Only	20-May	1-Nov	3.6	0.0	0.0	0.0
Open to All Vehicles	20-May	15-Nov	0.0	5.9	0.0	0.0
Open to Highway-legal Vehicles Only	20-May	15-Nov	0.0	29.8	0.0	0.0
Open to All Vehicles	20-May	1-Dec	8.1	214.4	211.6	221.7
Open to Highway-legal Vehicles Only	20-May	1-Dec	23.4	80.6	76.4	76.4
Open to Highway-legal Vehicles Only	30-May	15-Sep	0.0	5.2	0.0	0.0
Open to All Vehicles	30-May	1-Nov	31.0	0.0	0.0	0.0
Open to Highway-legal Vehicles Only	30-May	15-Nov	0.0	0.0	28.6	28.6
Open to All Vehicles	1-Jun	1-Apr	0.0	0.1	0.0	0.0
Open to All Vehicles	1-Jun	15-Nov	5.9	2.2	11.6	11.6
Open to All Vehicles	1-Jun	1-Dec	0.0	0.5	0.0	0.0
Open to All Vehicles	15-Jun	1-May	1.3	0.1	0.1	0.1
Open to Highway-legal Vehicles Only	15-Jun	1-May	3.7	3.7	5.0	5.0
Open to All Vehicles	15-Jun	15-Sep	2.6	0.0	0.0	0.0
Open to All Vehicles	15-Jun	1-Oct	6.6	73.1	90.4	90.9

Class of Vehicle	Season of Use		Alt 1 and 3 (miles)	Alt 2 (miles)	Alt 4 (miles)	Alt 5 (miles)
	From	To				
Open to Highway-legal Vehicles Only	15-Jun	1-Oct	0.0	0.0	2.0	2.0
Open to All Vehicles	15-Jun	1-Nov	0.0	0.2	3.7	3.7
Open to All Vehicles	15-Jun	15-Nov	0.0	2.5	0.0	0.0
Open to All Vehicles	15-Jun	1-Dec	0.0	2.0	0.0	0.0
Open to All Vehicles	20-Jun	1-Oct	0.0	0.3	0.0	0.0
Open to Highway-legal Vehicles Only	20-Jun	1-Oct	0.0	2.0	0.0	0.0
Open to All Vehicles	30-Jun	1-Oct	11.7	0.0	17.7	17.7
Open to All Vehicles	1-Jul	15-Sep	5.6	0.0	0.0	0.0
Open to All Vehicles	1-Jul	1-Oct	2.5	0.0	0.0	0.0
Open to All Vehicles	1-Jul	15-Oct	0.0	1.4	0.0	0.0
Open to All Vehicles	1-Jul	15-Oct	4.5	4.5	0.0	0.0
Open to All Vehicles	1-Jul	1-Nov	4.0	4.0	0.2	0.2
Open to All Vehicles	1-Jul	1-Dec	0.0	1.5	0.0	0.0
Open to All Vehicles	15-Jul	1-Oct	0.0	2.2	0.0	0.0
Open to All Vehicles	15-Jul	1-Nov	0.0	29.3	0.0	0.0
Open to All Vehicles	15-Jul	1-Nov	2.2	0.0	0.0	0.0
Open to All Vehicles	15-Jul	15-Nov	0.0	1.6	0.0	0.0
Open to All Vehicles	31-Jul	1-Oct	0.0	1.0	5.3	6.6
Open to All Vehicles	31-Jul	1-Dec	0.0	1.8	0.0	0.0
Open to All Vehicles	1-Aug	1-May	1.2	0.0	0.0	0.0
Open to All Vehicles	1-Aug	1-Jul	3.9	1.6	1.6	2.9
Open to All Vehicles	1-Aug	1-Nov	0.0	0.0	30.1	30.1
Open to All Vehicles	1-Aug	1-Dec	0.0	0.8	0.0	0.0
Open to All Vehicles	15-Aug	1-Jan	0.0	0.0	0.0	1.0
Open to All Vehicles	15-Aug	1-Nov	0.0	0.1	0.4	0.4
Open to All Vehicles	15-Aug	1-Dec	5.2	7.1	16.3	40.3
Open to All Vehicles	1-Sep	1-Dec	0.0	0.0	0.0	4.0
Open to All Vehicles	15-Sep	1-Dec	0.0	0.4	0.0	0.4
Open to All Vehicles	30-Sep	1-Oct	0.0	3.2	0.0	0.0
Open to All Vehicles	30-Sep	1-Dec	0.0	2.5	0.0	0.0
Open to All Vehicles	30-Nov	1-Oct	23.2	0.0	0.0	0.0
<b>Total</b>			<b>2446.4</b>	<b>2451.4</b>	<b>2455.1</b>	<b>2460.5</b>

**Table 3- 11. Trail Mileage Open to the Public Forestwide by Alternative (Class of Vehicle and Season of use)**

Class of Vehicle	Season of Use		Alt 1 & Alt 3	Alt 2	Alt 4	Alt 5
	From	To				
Trail Open to Vehicles 50" or less	Open Year-round		0.0	0.0	1.0	1.0
Trail Open to Vehicles 50" or less	2-Apr	30-Nov	0.0	7.4	0.0	0.0
Trail Open to All Trail Vehicles	2-Apr	30-Nov	0.0	0.8	0.0	0.0
Trail Open to Motorcycles Only	2-Apr	30-Nov	0.0	0.4	0.0	0.0
Trail Open to All Trail Vehicles	21-Apr	30-Nov	7.5	7.5	0.0	0.0
Trail Open to All Trail Vehicles	2-May	30-Nov	12.4	16.9	24.0	34.7
Trail Open to Vehicles 50" or less	2-May	30-Nov	0.5	9.6	20.9	33.0
Trail Open to Motorcycles Only	2-May	30-Nov	0.0	0.5	1.7	3.8
Trail Open to All Trail Vehicles	21-May	30-Nov	8.0	21.2	18.4	12.8
Trail Open to Vehicles 50" or less	21-May	30-Nov	0.0	0.8	0.7	0.7
Trail Open to All Trail Vehicles	21-May	31-Mar	0.0	0.0	3.8	0.4
Trail Open to All Trail Vehicles	31-May	31-Mar	0.0	0.6	0.0	3.8
Trail Open to All Trail Vehicles	31-May	15-Nov	11.0	0.0	2.1	2.1
Trail Open to All Trail Vehicles	31-May	30-Nov	0.0	8.8	0.0	7.3
Trail Open to All Trail Vehicles	2-Jun	30-Oct	11.0	0.0	0.0	0.0
Trail Open to All Trail Vehicles	16-Jun	30-Oct	17.8	13.0	11.5	11.5
Trail Open to All Trail Vehicles	2-Jul	30-Oct	0.0	0.0	13.0	13.0
Trail Open to All Trail Vehicles	2-Aug	30-Oct	0.0	5.0	5.0	5.0
Trail Open to Vehicles 50" or less	16-Aug	30-Nov	0.0	5.1	3.5	6.1
Trail Open to All Trail Vehicles	16-Aug	30-Nov	0.0	1.8	1.5	2.4
Trail Open to Motorcycles Only	16-Aug	30-Nov	0.0	0.7	1.1	2.4
Trail Open to All Trail Vehicles	2-Sep	30-Nov	0.0	0.3	0.0	0.0
Trail Open to Motorcycles Only	2-Sep	30-Nov	0.0	0.8	0.0	0.0
<b>Total</b>			<b>57</b>	<b>103</b>	<b>108</b>	<b>139</b>

**Table 3- 12. Trail Mileage Open to the Public Forestwide by Alternative by Degree of Difficulty**

Class of Vehicle	Degree of Difficulty	Alt 1 & Alt 3	Alt 2	Alt 4	Alt 5
Trail Open to Vehicles 50" or less	Easy	0.5	17.4	19.2	30.9
	More Difficult	0.0	7.7	6.0	8.4
	Most Difficult	0.0	1.0	0.9	1.4
<b>Sub-Total</b>		<b>0.5</b>	<b>26.1</b>	<b>26.1</b>	<b>40.7</b>
Trail Open to Motorcycles Only	Easy	0.0	1.3	0.0	2.1
	More Difficult	0.0	1.0	1.8	3.1
	Most Difficult	0.0	0.0	1.0	1.0
<b>Sub-Total</b>		<b>0.0</b>	<b>2.4</b>	<b>2.8</b>	<b>6.2</b>
Trail Open to All Trail Vehicles	Easy	17.4	1.5	35.7	46.7
	More Difficult	22.5	26.9	27.5	29.0
	Most Difficult	15.8	17.3	16.3	17.1
<b>Sub-Total</b>		<b>55.7</b>	<b>75.7</b>	<b>79.5</b>	<b>92.8</b>
<b>Total Mileage per Alternative</b>		<b>57</b>	<b>103</b>	<b>108</b>	<b>139</b>

**Table 3- 13. Area Acreage Added Forestwide by Alternative by Vehicle Class**

Season of Use	Vehicle Class	Alt 2	Alt 4	Alt 5
May 2 to November 30	Open to All Trail Vehicles	0.0	3.2	3.2
May 2 to November 30	Open to Highway-legal Vehicles Only	6.1	7.1	10.7
May 21 to November 30	Open to Highway-legal Vehicles Only	0.0	3.5	3.5
May 31 to November 14	Open to Highway-legal Vehicles Only	0.0	0.3	2.3
August 16 to November 30	Open to All Trail Vehicles	0.0	21.3	82.2
August 16 to November 30	Open to Highway-legal Vehicles Only	0.0	1.7	2.5
Year-round	Open to Highway-legal Vehicles	0.0	0.1	0.1

### Measurement Indicator 4: Motorized Access to Dispersed Recreation

Use of NFTS roads and motorized trails is both a primary and secondary recreation activity. For example, driving for pleasure is a primary activity and providing access to trailheads, campgrounds, and day-use sites a secondary recreation activity. Dispersed recreation activities (i.e., activities that occur after the motor vehicle stops such as camping, hunting, fishing, hiking, etc.) are not part of the scope of the proposed action. The action and the analysis focus on motor vehicle use. The dispersed recreation sites are scattered throughout the project area. A majority of the sites are accessed by existing NFTS roads. The creation of these sites vary from an old landing area in a timber sale to a site used as overflow camping when developed campgrounds are at capacity, to a staging area for loading and unloading horses or ATVs. There are a few sites that are utilized as an opportunity for motorized recreation and are often a granitic outcrop or dome. These areas provide various challenges for rock crawling or access to scenic views.

**Description:** This measurement indicator looks at the impact of proposed changes to the NFTS to motorized access to dispersed recreation opportunities by alternative.

**Method:**

**Roads:** Number of miles available by vehicle class and season of use.

**Quality of Road/Dispersed Experience:** Number of dispersed sites accessed. In some instances multiple sites are accessed by a single facility addition.

**Trails:** Number of miles available by vehicle class and season of use.

**Table 3- 14. Number of Dispersed Recreation Sites Accessed by Proposed Additions to the NFTS by Alternative**

	Alt 1		Alt 2		Alt 3		Alt 4		Alt 5	
	#	Acres								
Areas	1,327	697	241	375	240	369	251	406	260	474

In Alternative 1 there are no additions to the NFTS proposed. The number shown is an estimate.

## Measurement Indicator 5: Impact of Proposed Changes to the NFTS on Neighboring Private and Federal Lands (dust, noise and use impacts)

**Description:** This measurement indicator looks at the impact of proposed changes to the NFTS on neighboring private and Federal lands (dust, noise and use conflicts) by alternative.

**Method:** Number of miles of new roads and motorized trails proposed within 1/2 miles of populated areas, neighboring Federal land boundaries, wilderness boundaries and private land boundaries (acts as surrogate to indicate how much conflict with NFTS may occur by alternative). This method was determined through a literature review of sound studies and reports. These include (1) Martin (2005) “California Off-Highway Vehicle Noise Study: A Report to the California Legislature as Required by Public Resources Code Section 5090.32 (0);” (2) Pilcher and Turina (2006) “Protecting Natural Sounds in National Parks: Soundscape Workshop Visitor Experience and Soundscapes;” and (3) Ouren et al (2007), “Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands: A Literature Synthesis, Annotated bibliographies, Extensive Bibliographies and Internet Resources.”

The intent of comparing the miles of roads and motorized trail within 1/2 mile of developed recreation sites, neighboring populated areas, wilderness boundaries and private land boundaries is to capture the effect of recreational vehicle noise on these locations. As stated above, at 1/4 mile, 96 decibels will be perceived as no louder than a rural residential area. At distances less than 1/4 mile, noise levels increase with a corresponding increase in the potential for effect on and conflict with occupants of these areas. The 1/2 mile buffer used for the analysis represents an estimate of the limits of severe engine noise impacts and provides a reference point to enable the comparison of the different alternatives.

Alternative 1 is not proposing additions to the NFTS, however for comparison there are 208 miles of unauthorized routes (2005 inventory) within 1/2 mile of neighboring private and Federal lands.

**Table 3- 15. Miles of Proposed Additions to the NFTS within 1/2 Mile of Neighboring Private and Federal Lands by Alternative**

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Unauthorized Route Additions within 1/2 mile	0	19	0	12	26
Total Mileage in Alternative	0	44	0	51	85

## Recreation Resources Methodology by Action

### 1. Direct and indirect effects of the prohibition of cross-country motor vehicle travel

**Short-term time frame:** 1 year.

**Long-term time frame:** 20 years.

**Spatial boundary:** The spatial boundary for analysis is identified in Figure 1-2 Project Area. This was used when considering effects associated with changes in the NFTS or season of use.

**Indicators:** (1) The compatibility of proposed changes to the NFTS with LRMP recreation and OHV management prescriptions and ROS; (2) The impact of proposed changes to the NFTS on non-motorized (i.e., quiet) recreation (dust, noise, use conflicts); (3) The amount and diversity of motorized recreation opportunity by alternative; (4) The

amount of motorized access to dispersed recreation by alternative; (5) The impact on neighboring private and federal lands (dust, noise, use conflicts).

**Rationale:** The effects measurement indicators are based on NFMA and Travel Management Rule requirements as well as significant issues raised during internal and public scoping.

## **2. Direct and indirect effects of adding facilities to the NFTS including identifying seasons of use and vehicle class**

**Short-term time frame:** 1 year.

**Long-term time frame:** 20 years.

**Spatial boundary:** The spatial boundary for analysis is identified in Figure 1-2 Project Area. This was used when considering effects associated with changes in the NFTS or season of use.

**Indicators:** (1) The compatibility of proposed changes to the NFTS with LRMP recreation and OHV management prescriptions and ROS; (2) The impact of proposed changes to the NFTS on non-motorized (i.e., quiet) recreation (dust, noise, use conflicts); (3) The amount and diversity of motorized recreation opportunity by alternative; (4) The amount of motorized access to dispersed recreation by alternative; (5) The impact of proposed changes to the NFTS on neighboring private and federal lands (dust, noise, use conflicts).

**Rationale:** The effects measurement indicators are based on NFMA and Travel Management Rule requirements as well as significant issues raised during internal and public scoping.

## **3. Direct and indirect effects of changes to the NFTS including identifying seasons of use and vehicle class**

**Short-term time frame:** 1 year.

**Long-term time frame:** 20 years.

**Spatial boundary:** The spatial boundary for analysis is identified in Figure 1-2 Project Area. This was used when considering effects associated with changes in the NFTS or season of use.

**Indicators:** (1) The compatibility of proposed changes to the NFTS with LRMP recreation and OHV management prescriptions and ROS; (2) The impact of proposed changes to the NFTS on non-motorized (i.e., quiet) recreation (dust, noise, use conflicts); (3) The amount and diversity of motorized recreation opportunity by alternative; (4) The amount of motorized access to dispersed recreation by alternative; (5) The impact of proposed changes to the NFTS on neighboring private and federal lands (dust, noise, use conflicts).

**Rationale:** The effects measurement indicators are based on NFMA and Travel Management Rule requirements as well as significant issues raised during internal and public scoping.

## **4. Cumulative Effects**

**Short-term time frame:** not applicable; cumulative effects analysis will be done only for the long-term timeframe.

**Long-term timeframe:** 20 years

**Spatial boundary:** The SNF boundary is the unit of spatial analysis for determining cumulative effects.

**Indicators:** (1) The compatibility of proposed changes to the NFTS with LRMP recreation and OHV management prescriptions and ROS; (2) The impact of proposed changes to the NFTS on non-motorized (i.e., quiet) recreation (dust, noise, use conflicts); (3) The amount and diversity of motorized recreation opportunity by alternative; (4) The amount of motorized access to dispersed recreation by alternative; (5) The impact of proposed changes to the NFTS on neighboring private and federal lands (dust, noise, use conflicts).

**Rationale:** The effects measurement indicators are based on NFMA and Travel Management Rule requirements as well as significant issues raised during internal and public scoping

### 3.3.2 Affected Environment

The Affected Environment section is project-wide and covers all analysis units.

The SNF is located in Fresno, Madera and Mariposa Counties in the State of California. The SNF is bordered on the west by private property in the eastern foothills of the San Joaquin Valley, on the north by Yosemite National Park and Stanislaus National Forest, and on the east and south by Inyo National Forest, Sequoia-Kings Canyon National Park and Sequoia National Forest.

The SNF is within a 1-hour drive from Madera or Fresno, a 3-hour drive from Stockton or Bakersfield, and a 6-hour drive from San Francisco or Los Angeles. The communities of Shaver Lake, Big Creek, North Fork, and Bass Lake are located within the SNF boundary. About 95,725 acres of private lands (such as Southern California Edison, Pacific Gas and Electric and residential areas) occur within the project area.

From lakeside camping and picnicking to wilderness solitude, the SNF is popular for destination recreation. With intensely used and highly developed lakes and the Ansel Adams and John Muir Wildernesses, the Sierra provides the extreme ends of recreation settings. These sharp contrasts provide destinations for visitors to escape from the intensity of urban life and to connect with nature, family and friends.

Developed recreation sites consist of campgrounds, picnic sites, trailheads, and boat launches. These recreation sites are distributed along State Highways and NFTS roads. These sites are at elevations ranging from 1,500 feet to over 8,200 feet.

The major recreation activities in the summer and fall are primarily dispersed recreation: driving for pleasure, camping, picnicking, fishing, boating, horseback riding, hiking, viewing wildlife and hunting. Visitors to the SNF who enjoy these activities primarily park in an area without vegetation off the road. Dispersed recreation is where a visitor parks or “stages” in an area to access recreation. The visitor may recreate quite a distance from the staging area (hunting, fishing, and boating) or near the vehicle as in camping or preparation of a horse for riding. There are over a thousand such parking and staging areas across the SNF.

Driving for pleasure has increased over the years. In 2002, 9.9 percent of the visitors participated in driving for pleasure and in 2007, 13.6 percent participated. The roads provide visitor access to all types of developed and dispersed recreation. Driving on NFTS roads provides different experiences depending on the road chosen to travel. Popular paved driving and scenic corridors, two of which are designated as National Forest Scenic Byways, are the conduit for connecting people from low elevation, urban settings to cool, high elevation quiet. These corridors provide dramatic geologic, historic and vegetative contrasts including an intimate experience with Giant

Sequoias, and take visitors from the surrounding lowlands at sea level to over 9,000 feet elevation.

## Recreation Visitor Use

Visitor counts relating to motorized use were not documented in the 1977 ORV Plan. However, through the National Visitor Use Monitoring (NVUM) process, the SNF has data relating to these visitors. Most SNF visitors reside in Fresno, Madera, Merced or Mariposa counties and drive less than 75 miles to their destination on the SNF. Table 3- 16 describes the type of recreation activities SNF visitors reported participating in during the 2002 and 2007 surveys. Again, the reader should be cautioned to assume use trends based on these data, as (1) the survey methods changed between 2002 and 2007, (2) fewer total visitors in 2007, and (3) in 2007 there was a greater margin of error in the data (USDA-FS 2008).

**Table 3- 16. Forest Visitor Activity Participation and Primary Activity As Reported In NVUM Results (2002 and 2007)**

Activity	Percent of Visitors who Participated in this Activity <sup>1</sup>	
	FY <sup>2</sup> 2002	FY 2007
Camping in developed sites	35.6	11.6
Primitive camping	2.1	2.0
Backpacking	6.0	3.6
Resort Use	5.4	3.9
Picnicking	22.6	20.6
Viewing wildlife, birds, fish, etc	26.9	21.6
Viewing natural features (scenery)	32.4	51.3
Visiting historic/prehistoric sites	7.0	4.8
Visiting a nature center	3.6	2.9
Nature Study	6.2	7.6
Relaxing	43.2	48.7
Fishing	22.8	12.3
Hunting	1.3	0.0
OHV use	3.4	1.6
Driving for pleasure	9.9	13.6
Snowmobile travel	0.5	1.2
Motorized water travel	7.1	6.6
Other motorized activities	0.6	0.9
Hiking or walking	41.2	40.5
Horseback riding	0.8	1.4
Bicycling	4.4	3.0
Non-motorized water travel	12.0	4.4
Downhill skiing or snowboarding	10.3	9.4
X-C skiing, snow shoeing	3.2	2.8
Other non-motor activity (swim, etc.)	22.9	43.8
Gathering forest products mushrooms, berries, firewood	5.3	4.3
Motorized trail Activity		0.8
No Activity Reported	13.9	4.1

<sup>1</sup>Survey respondents could select multiple activities so this column may total more than 100 percent.

<sup>2</sup>The USDA Forest Service fiscal year (FY) begins October 1 and ends September 30.

It can be determined the number of visitors who spent some time driving for pleasure and/or used off-highway vehicles during their visit based on the reported number of visits to NFS lands on the SNF during fiscal year (FY) 2002 and 2007. It can also be determined the number of visitors who participated in off-highway vehicle use as their primary activity. Based upon the data, when primary motorized uses are combined, including: OHV use, driving for pleasure and other motorized activities, in FY 2002 14 percent of the visitors to the SNF responded they participated in motorized uses. In FY 2007 the data indicates there was a 26 percent reduction of primary motorized use on the SNF. Even with a reduction of primary motorized use on the SNF, the visitors participating in the survey, 17 percent responded they participated in motorized uses.

There are a number of visitors who spent some time in non-motorized uses, such as backpacking, fishing, hiking, walking, horseback riding, and bicycling. In FY 2002, 98 percent of the visitors to the SNF responded the main reason they came to the SNF was to participate in non-motorized uses. In FY 2007 participation in non-motorized activities was reported as 105 percent (See Table 3- 17 and associated footnote). Use of a motor vehicle is the primary form of access to non-motorized recreation activities on the SNF.

**Table 3- 17. Approximate Forest Visitors by Type of Main Activity as Reported in NVUM Results (2002 and 2007)**

Type of Use	NVUM Categories	Percent as Main Activity 2002*	Approximate Visitors in 2002	Percent as Main Activity 2007*	Approximate Visitors in 2007
Camping	Developed Camping	35.5	660,384	11.6	132,182
	Primitive Camping	2.1	39,120	2.0	22,790
Hunting	Hunting	1.3	24,962	0.0	
Motorized Uses	OHV use	3.4	62,592	1.6	18,232
	Driving for Pleasure	9.9	184,609	13.6	154,972
	Other Motorized Activity	0.6	11,736	0.9	10,256
Non-motorized Uses	Backpacking	6.1	112,703	3.6	41,022
	Fishing	22.9	426,036	12.3	140,159
	Hiking/Walking	41.2	767,685	40.5	461,498
	Horseback Riding	0.8	15,648	1.4	15,953
	Bicycling	4.4	81,780	3.0	34,185
	Other Non-Motorized Activities	22.9	425,850	43.8	499,101
Other Activities	Resort Use	5.4	100,036	3.9	44,441
	Picnicking	22.6	420,820	20.6	234,737
	Viewing Natural Features	32.4	604,125	51.3	584,564
	Visiting Historic Sites	7.0	129,841	4.8	54,696
	Nature Center Activities	3.6	67,622	2.9	33,046
	Nature Study	6.2	116,056	7.6	86,602
	Relaxing	43.2	805,128	48.7	554,937
	Gathering Forest Products	5.3	98,918	4.3	48,999
Water Sports	Viewing Wildlife	26.9	501,668	21.6	246,132
	Motorized Water Activities	7.1	131,332	6.6	75,207
	Non-motorized Water	12.0	222,798	4.4	50,138
Winter Sports	Downhill Skiing	10.1	192,806	9.4	107,113
	Cross-country Skiing	3.2	59,984	2.8	31,906
	Snowmobiling	0.5	9,873	1.2	13,674

\* Respondents were asked to select one activity as their main one; some selected more than one, so this column may total more than 100%.

## Motorized Recreation

A majority of the road network on the SNF was created in support of timber harvest activities beginning in the late 1800s. A resurgence of timber harvest in the early 1960s through the late 1980s resulted in access roads for timber management into many new areas of the SNF. By the late 1980s most of the necessary timber-related access roads were in place and priorities were shifted to provide better public safety and access. Timber-related facilities and the extensive road network have created hundreds of facilities that are part of the NFTS road system. These facilities provide parking and staging for access to dispersed recreation. Public use of the road system has grown steadily. In recent years, motorized visitors have taken the opportunity to use timber-related access roads and skid trails as a source of recreation. In many cases, once a timber sale is complete, the public has used the non-system improvements (the skid trails or landings), as opposed to creating new cross-country routes.

Typical seasons of use vary across the SNF and depending on the onset and duration of snowfall, are mostly determined by elevational differences. For example, two roads in different terrain the McKinley Grove Road and Beasore Road close near the first of December due to snowfall. The roads reopen near the end of April. As stated in Chapter 2, current management of the NFTS is defined under the SNF 1998 Road Closure Plan and implemented by Forest Order R5-83-3. Implementation of the Closure Plan represents 447 miles of roads seasonally open, 1,763 miles of roads open year-round, and 236 miles of roads closed year-round.

The SNF has been used by motorized recreation visitors since the late 1940s. Four-wheel drive vehicles were the primary mode of off-highway travel. The SNF has had an OHV Plan since off-highway vehicle controls were first put into effect in 1958. The controls were adjusted and modified over the years between 1960 and 1976 to meet the changing conditions and needs. These controls were developed with the participation of the public and were helpful in allowing motor vehicle use, while at the same time providing necessary protection to the basic resources. In the early 1970s trail bikes, motorcycles and all-terrain vehicles became popular.

An Executive Order signed by President Nixon on February 8, 1972 directed all Federal land management agencies to prepare plans to “insure that the use of off-road vehicles on public lands will be controlled and directed to protect the resources of those lands and to minimize conflicts among the various visitors of those lands.” As a result of the 1972 Executive Order, the SNF began an environmental analysis which resulted in the 1977 ORV Plan. The plan identified an area limited to roads and “ORV trails” and an area identified as “open use.”

The California Wilderness Act of 1984 was passed by Congress in September 1984 and became Public Law 98-425. This Act established the Dinkey Lakes Wilderness and enlarged the John Muir Wilderness. This legislation had potential for impacting two “ORV trails” identified in the 1977 Plan; Coyote and Dusy-Ershim. The Act references the Dusy-Ershim as a primitive road.

In 1972 the State of California initiated a grants and agreements program to qualified applicants. Beginning in the 1980s, the SNF was successful in obtaining State funds to maintain the system identified in the 1977 ORV Plan as well as non-NFTS opportunities not eligible to be maintained with Federal appropriated funds. One area of non-NFTS opportunities is Miami Motorcycle Area. The area has been managed over the years using State of California Off-Highway Motor Vehicle Recreation Division funds. The objective of applying this funding in the Miami area was to encourage visitors to stay on identified routes and discourage motorized cross-country use. Using these funds, new unplanned routes and routes with negative resource issues were actively obliterated. In addition, State funds have assisted in monitoring soil conditions, performing routine maintenance and conducting resource inventories for sensitive plants and animals.

The SNF has 56 miles of motorized trails and 41 miles of primitive roads maintained as motorized trails. These opportunities are shown on the recreation visitor map as designated off-highway vehicle routes. There are directional signs to the beginning of the routes. These motorized trails and roads are popular with visitors due to the challenging rock crawling offered as well as the primitive camping experience. There are opportunities to travel over granitic domes and other trails are native surfaced with occasional boulders to traverse. Each motorized trail or primitive road has unique recreation experiences depending upon elevation and surface of the trail. These routes are maintained by volunteers in partnership with the SNF. Operations and maintenance on these routes is accomplished with funding assistance through a partnership with the State of California Off-Highway Motor Vehicle Division. The partnership with the State of California also funds 33 miles of unauthorized routes in the areas where cross-country motorized use is proposed to be prohibited. Of the 56 miles of motorized trails, two trails (8 percent) open in April, 12 trails (48 percent) open in May, and 11 trails (44 percent) open in June. A majority of the openings are weather dependent. Once the snow melts and drainage features move water off the trail, the trail is open for public use.

The NFTS roads open to non-highway legal vehicles provide an interconnecting network creating several miles of opportunity. It would be characterized as a semi-connected network. Just as there is a semi-connected network of unauthorized routes branching off the NFTS roads. There are currently approximately 605,000 acres open to cross-country motorized travel. Of the 560 miles of inventoried unauthorized routes, an estimated 471 miles are located in the acres open to cross-country motorized travel (2005 inventory). According to GIS analysis, 70 percent of all unauthorized routes are located in five predominate vicinities on the SNF. These general locations are: the Miami Motorcycle Area, the land in the area of Whiskey Falls, Texas Flat, Whiskers, Gaggs and Lower Chiquito campgrounds, Jose Basin, Blue Canyon, and Nelson Mountain – Big Fir Road areas.

Miami Motorcycle Area is located directly off of Highway 41. Miami Motorcycle Area began as a result of an approximately 4,500-acre timber harvest project and now provides recreational opportunities for dirt bikes, duel sport bikes and ATVs. The area is managed and is in compliance with the 1977 ORV Plan. Per the plan, the area is open to cross-country travel. However, the SNF identified 18 miles of motorcycle and ATV non-system trails and discourages cross-country travel. There are two main staging areas, Kamook and Lone Sequoia, servicing the area with picnic tables, fire rings, vault toilets and parking that includes room for unloading equipment. Though the SNF has identified the Miami Motorcycle Area on the official recreation map since 1991, there are visitors who have ridden the trails for 35 or more years. The loop and varied skill level opportunities for motorcycle and ATV recreation provides the most popular ATV and motorcycle riding opportunities on the SNF. Miami Motorcycle Area is located in the Westfall Analysis Unit. The Westfall Analysis Unit has 113 miles of unauthorized routes. There is a roaded experience in this area providing predominantly native surface experience with gentle to short steep slopes. There is opportunity for long riding experiences without repeating the segments and accesses a large existing road network

A few miles from the Miami Motorcycle Area, there are a few small campgrounds dotted through the area. Many motorized recreation visitors camp at developed campgrounds (Whiskey Falls, Texas Flat, Whiskers, Gaggs, Lower Chiquito and others) and ride the extensive network of system roads and unauthorized routes. There is extensive connectivity providing hours of riding. ATVs are the principal vehicle of choice in this area. The small campgrounds are located in the Gaggs Analysis Unit. The Gaggs Analysis Unit has 83 miles of unauthorized routes.

In Jose Basin, there is a network of roads and unauthorized routes as a result of previous timber harvesting. An annual permitted motorized event brings four-wheel drive enthusiasts together to test their skills on the rocks and routes in the area. There is a roaded experience in Jose Basin

providing predominantly natural surface experience with gentle to short steep slopes with occasional boulder areas for technical driving opportunities (rock crawling). Jose Basin is located in the Jose-Chawanakee Analysis Unit. The Jose-Chawanakee Analysis Unit has 22 miles of unauthorized routes.

In Blue Canyon, an annual permitted motorized event brings four-wheel drive enthusiast together to test their skill on short steep routes and challenging rock crawling. There is a roaded experience in Blue Canyon providing a natural surface with gentle to short steep slopes with occasional boulder areas to crawl over. Blue Canyon is located in the Dinkey-Kings Analysis Unit. The Dinkey-Kings Analysis Unit has 61 miles of unauthorized routes.

It should be noted that the motor vehicle use described in Jose Basin and Blue Canyon is authorized under special use permit. Use authorized under special use permits or other authorizations (permits, mining claims, and licenses) are analyzed in separate NEPA decisions and are outside the scope of this proposal.

Located northeast of the Blue Canyon area is the Nelson Mountain/Big Fir Road area. The routes in this area are a result of temporary roads and timber sales. The area began expanding as an overflow camping area as a result of Dinkey Creek, Buck Meadow and Gigantea campgrounds reaching capacity. In addition, this area is a camping and staging area for day rides over the Swamp OHV route. The Nelson Mountain/Big Fir Road area is located in the Tamarack-Dinkey Analysis Unit. The Tamarack-Dinkey Analysis Unit has 109 miles of unauthorized routes.

## Areas

An 'area' is defined as a discrete, specifically delineated space that is smaller, and in most cases much smaller than a ranger district. Areas on the SNF are accessed by existing NFTS roads. The original creation of these sites vary from old landing areas in a timber sale to sites used as overflow camping when developed campgrounds are at capacity, to staging areas for loading/unloading horses or ATVs. There are a few sites that are utilized as an opportunity for motorized recreation and are often a granitic outcrop or dome. These areas provide various challenges for rock crawling or access to scenic views.

Currently the SNF is managing areas as managed recreation areas or as part of the managed transportation system. The SNF manages 59 dispersed recreation sites (approximately 124 acres) where motor vehicle use is allowed. Management activities (health and safety and resource protection) are primarily for resource protection rather than user convenience. An area may be as small as an individual parking area for access to camping or as large as a space for parking several vehicles with equestrian trailers. There are also a few areas open to motorized travel for all trail vehicles within the defined boundaries. Managed areas are not maintained daily, but require more labor intensive trash collection as trash collection bins are typically not present (see Appendix K - Maps). Specific information for the 59 managed recreation areas includes:

- 71 percent of these acres (8 sites) are located on Bald Mountain which has an NFTS motorized trail. Bald Mountain has areas of rock; sections of granitic dome with scattering of rock/boulder climbing challenges. There is scattered vegetation and occasional vista points. Of the acreage identified as Bald Mountain, 25 percent of the acres (3 areas) are parking areas.
- Approximately 17 percent of the acres (26 sites) are associated with campsites along the Coyote, Dusy-Ershim, Mirror, Red, Strawberry and Swamp NFTS motorized trails. Another 4 sites for 2.7 acres are used for parking and access to camping in the Miami Motorcycle Area

- Approximately 6 percent of the acres (13 sites) are near or part of a trailhead. These parking sites average less than 1 acre each and are for highway-legal vehicles only.
- Three sites (total 1.5 acres) are located off of Dinkey Creek Road in an area the locals call “Radio Camp.” This is an area where highway-legal vehicles can find a place to park to access the dispersed camping throughout this area.
- The five remaining sites (2.8 acres) are areas where highway-legal vehicles can park to access dispersed camping either along a boat ramp, a Native American Bear Dance location, and parking for single vehicles to access dispersed recreation.

The SNF also manages hundreds of areas as part of the transportation system. These facilities range from staging and parking areas to individual parking areas for access to camping. There are over 600 acres of parking facilities in the NFTS for highway-legal vehicles only. Specific information for the areas managed as transportation facilities are:

- 86 percent of these sites are less than 1 acre in size and are scattered across the SNF landscape. These sites are used for parking, predominately for visitors pulling a horse trailer.
- The remaining sites, though larger than 1 acre in size, are scattered across the SNF landscape. The sites are also used for parking. The larger sites allow more space between the parked vehicles or provide the access to the dispersed recreation activities nearby.

## Non-Motorized Recreation

Non-motorized recreation consists of many of different types of experiences identified with quiet recreation. Quiet recreation is defined as muscle powered recreation, such as hiking, walking cross-country skiing, snowshoeing, wildlife and bird viewing, horseback riding, photography, fishing, and additional experiences. The SNF manages for solitude in the Ansel Adams, Dinkey Lakes, John Muir, Kaiser and Monarch Wildernesses. Vehicles are limited to the NFTS in the Kings River Special Management Area, which was established by Congress to provide for public outdoor recreation use and enjoyment and to protect natural and archaeological resources. Designated wild and scenic rivers on the SNF, including the Kings River (includes Middle Fork, South Fork and the main river) and the Merced River (includes the South Fork), and other special areas (e.g. botanical, geologic and historic) offer botanical, geologic and historic non-motorized experiences (to name a few). On the SNF there are approximately 592,000 acres where non-motorized recreation opportunities are available exclusive of motorized recreation. A majority of the identified non-motorized recreation is outside of the project boundaries.

Within the project boundary, visitors will find opportunities for hunting around meadows and riparian areas, fishing and water play at lakes, creeks, and streams and other non-motorized experiences. A vehicle may provide the access to the destination; however the actual non-motorized recreation begins when the visitor walks around the lake, brings a pole and goes fishing, or escapes from the heat in the valley.

### 3.3.3 Environmental Consequences

This section analyzes each of the alternatives for direct, indirect and cumulative effects of (1) prohibition of cross-country wheeled motor vehicle travel, (2) adding facilities, (3) changing NFTS facilities, and (4) a non-significant LRMP amendment.

## Alternative 1 – No Action

Of all the alternatives, Alternative 1 will provide the most motorized opportunities with fewest limitations. No facilities will be added to the NFTS. Motorized cross-country travel will continue inside the area depicted in Figure 1-3 with a probable increase in the number of unauthorized motorized recreation routes. The SNF would continue to implement the 1998 Road Closure plan.

### Direct and Indirect Effects

#### Cross-country Motor Vehicle Travel

Alternative 1 does not prohibit cross-country travel by wheeled motor vehicles and therefore has the greatest adverse effect to ROS consistency. There are 10.6 miles of unauthorized routes in the Primitive ROS class. Calculating acres per the 1986 ROS Book (USDA-FS 1986), 6,790 acres are impacted in the Primitive ROS class. In addition there are 10.3 miles of unauthorized routes located in Semi-Primitive Non-Motorized ROS class, which totals 6,598 acres impacted. There will be continued use in the area open to cross-country travel for motor vehicles with a probable proliferation of unauthorized motorized recreation routes. The probable proliferation may add to the adverse effect on ROS consistency.

There are 12 miles of unauthorized routes in inventoried roadless areas. The probable proliferation of unauthorized motorized routes in the area open to cross-country travel is expected to continue. This probable proliferation may add to the adverse effect on inventoried roadless areas.

Non-motorized recreation opportunity will continue for hunting, fishing, and other non-motorized activities. Comparing Figure 1-3 (displaying the area open to cross-country travel) to Figure 1-2 (displaying the Project Boundary) it is noticeable the project boundary is larger than the area open to cross-country travel. Therefore, the non-motorized activities will not be changed outside of the area open to cross-country travel. However, non-motorized activities within the area open to cross-country travel have the potential to be adversely impacted. Motor vehicles may impact riparian areas such as meadows, lakes and streams which in turn would impact the land and water based wildlife, which in turn would impact hunting, fishing and other non-motorized activities.

A majority of the challenging motorized recreation opportunity on the SNF will predominately occur on the 56 miles of motorized trails and 41 miles of primitive roads managed as motorized trails where a primitive motorized experience is offered. There are no changes to the NFTS proposed. There will be continued use in the area open to cross-country travel for motor vehicles with a probable proliferation of unauthorized motorized recreation routes. The proliferation may lead to a more homogenous motorized recreation opportunity over the next 20 years in the area identified in Figure 1-3, as the widening of the undesignated routes over time will provide no additional challenge or variety in degree of difficulty. Widening is assumed due to current management of motorized trails to continually prevent tread width increases with additional routes created to avoid difficult sections. The terrain in the area open to motorized cross-country travel and the existing unauthorized routes are generally flat with occasional moderate slopes. The consistency in terrain for current and additional unauthorized routes may not provide for a quality recreation experience. This may affect the quality of the experience for responsible motorized recreation visitors.

Motorized access to dispersed recreation will continue in areas depicted in Figure 1-3 open to cross-country travel. The area in the figure identified as where cross-country travel is prohibited would be limited to areas accessed from NFTS roads and trails. It is perceived Alternative 1 has the greatest amount of dispersed recreation sites due to the ability to travel cross-country to camp.

However, the average dispersed recreation sites are not along unauthorized routes but are approximately 100 feet from a system road, usually less than 75 feet.

The existing road system and closure plan would continue without change. There are 1,741 miles of roads open to all vehicles, including vehicles less than 50 inches wide.

The impacts of allowing cross-country motorized use include continued noise, dust and physical presence. Of the five alternatives, Alternative 1 has the greatest potential for an adverse effect of conflict with the neighboring private and Federal lands. Of the estimated 560 miles of unauthorized routes, there are 208 miles within 1/2 mile of private property.

### Additions to the NFTS

No facilities will be added to the NFTS.

### Changes to the NFTS

There will be no changes to the NFTS. The lack of changes will benefit the operators of red stickered vehicles with 1,402 miles roads open to All Vehicles.

### Non-Significant LRMP Amendments

There will be no non-significant LRMP amendment issued under this alternative.

### Cumulative Effects

#### Cross-country Motor Vehicle Travel

Opportunities to expand cross-country travel through currently brushed or heavily timbered areas will be increased with the approximately 4,000 acres per year of proposed fuel treatments within the project area. It is presumed these fuel reduction projects will open up additional opportunities to explore for cross-country travel. Approximately 2,500 acres of timber harvest is expected annually with a projection in 10 years of 5,000 acres annually. The proposed timber harvesting will open up additional opportunities to explore for cross-country travel. In addition, fuel reduction and timber harvesting may open up additional access to dispersed recreation opportunities.

Adverse cumulative effects to ROS may occur over the next 10 to 20 years with the construction of temporary roads and landings for accessing timber. However, according to the prescription, all temporary roads would be closed at the resolution of the timber projects. If the temporary roads are decommissioned, the long-term effect is minimal.

The unlimited travel on this section of the SNF will continue to be an adverse impact on the land, and therefore the cumulative effects have been fully described in the above sections.

### Additions to the NFTS

No facilities will be added. However, unauthorized routes would proliferate with no prohibition of cross-country travel.

### Changes to the NFTS

There are no changes to the NFTS.

## Non-Significant LRMP Amendments

There will be no non-significant amendment issued under this alternative.

## Alternative 2 – Proposed Action

In summary, 44 miles of routes are proposed for addition to the NFTS. Cross-country travel is prohibited. Seasons and types of use for roads and motorized trails are established. A Motor Vehicle Map (MVUM) of the designated system will be printed.

## Direct and Indirect Effects

### Cross-country Motor Vehicle Travel

ROS classes are compatible with the intent of the LRMP for Roaded Natural and Primitive. There is a direct beneficial effect for the Primitive ROS class as 10.6 miles (6,790 acres) of unauthorized routes would no longer allow motor vehicle use. There is a beneficial effect in the Semi-Primitive Non-Motorized ROS class as 9.5 miles (6,086 acres) of unauthorized routes would no longer allow motor vehicle use. Alternative 2 would reduce acres in the Semi-Primitive Non-Motorized ROS class and increase Semi-Primitive Motorized ROS by 512 acres.

Prohibiting motor vehicle use on 12 miles of unauthorized routes in the inventoried roadless areas would be a beneficial affect.

There is a beneficial effect for non-motorized recreation users when compared to Alternative 1. Cross-country travel would be prohibited resulting in less wheeled motor vehicle activity. Specific motorized trails have been identified to reduce potential user conflict with non-motorized activities (in locations where non-motorized recreation is the predominant use and motorized recreation is neither expected nor desired) but still provide sufficient motorized access to recreation opportunities. Utilizing the analysis of acres ½ mile from an area where motorized use is proposed and including designated roads, trails and areas in the NFTS, there would be a 70,988 net gain in acreage available for quiet recreation and non-motorized activities.

There is an adverse effect for motorized recreation users when compared to Alternative 1. Alternative 2 provides wheeled motorized routes (44 miles) available for a variety of OHV opportunities. There is a net loss of approximately 605,000 acres available for wheeled motor vehicle activities due to the prohibition of cross-country travel. Motorized recreation opportunities would be focused on a designated system. Although there is an addition of 39 miles of trails in this alternative, there would be an adverse impact to the motorized recreation experience due to: (1) the reduction will compresses the existing and future use into a limited, designated system and (2) the prohibition of travel on 512 remaining miles of unauthorized routes. However, there would be 1,461 miles of roads seasonally open to all vehicles.

Motorized access to dispersed recreation would be decreased by over 1,000 parking and riding areas when compared to Alternative 1, due to the prohibition of use of existing unauthorized routes. However dispersed camping accessed from NFTS roads, trails and facilities, and the managed areas would continue.

The prohibition of cross-country motorized travel on the SNF would have beneficial effects on neighboring private and public lands. Reducing unauthorized routes within ½ miles of private property and federal lands from 208 miles to 19 miles would reduce vehicle related noise and dust. One adverse effect is direct access for motorized recreation from adjacent private property would no longer be available (i.e. unauthorized routes from private property directly onto NFS lands would be prohibited).

## Additions to the NFTS

Addition of the proposed routes and area would be compatible with Roded Natural and Primitive ROS classes as intended in the LMRP. Predominant use would be in Roded Natural ROS class. There would be 0.8 miles of proposed additions located in Semi-Primitive Non-Motorized ROS class.

There are no facilities being added in established non-motorized areas.

Alternative 2 would provide designated trails for motorized recreation contributing to the variety of the riding experience (Motorcycle 6 percent, ATV and Quads 55 percent and four-wheel drive 39 percent). This alternative has the greatest range of difficulty (58 percent easy, 36 percent moderate and 6 percent difficult). In some areas the motorized recreation experience is enhanced due to extended riding time with access to loops and a larger network of roads and trails. Prohibiting cross-country travel to and only designating 39 miles of trails would be an adverse effect because motorized recreation opportunities are reduced and the existing and future use would be compressed into a limited, designated system. Though only 44 miles of roads and trails would be added to NFTS, the full network would include 57 miles of motorized trails, 41 miles of primitive roads managed as motorized trails and 1,461 miles of roads open to non-highway legal vehicles.

Alternative 2 was designed for recreational motorized experience with less emphasis on access to dispersed recreation. Access to dispersed recreation would continue to hundreds of NFTS facilities, managed sites, and the addition of one larger area (6 acres) authorized for parking.

Of the 44 miles of unauthorized routes proposed for designation in this alternative, 19 miles are located within ½ mile of neighboring private and federal lands. Motor vehicle use of these miles would have potential adverse noise effects, however slight, to the private property owner. This alternative would have the highest percentage (43 percent) of proposed new NFTS facilities (roads, trails and areas) within ½ mile of private property. However, the reduction of 189 miles of unauthorized routes within ½ mile of neighboring private and federal lands is a beneficial effect.

## Changes to the NFTS

Changes to the NFTS are consistent with the current ROS classification.

There are no changes to the NFTS that would impact established non-motorized areas.

Motorized recreation users would benefit by changes in allowed vehicle types and an increase in motorized trails including: 12 additional miles would be changed from highway-legal only to open for travel by non-highway legal vehicles; 11 miles of closed road would be open to highway-legal only; 7 miles of roads would be converted to motorized trails; 59 miles of closed roads would be opened for travel by non-highway legal vehicles; and 1,461 miles of road remain would be open for travel by non-highway legal vehicles. This provides visitors with more connectivity between motorized trails resulting in longer loop opportunities. Calculating the changes to the motorized trail system (including 44 miles of road managed as motorized trails) results in 144 miles of motorized trail opportunities.

Changes in the season of use would have the potential to improve tread conditions. Stabilizing the tread through the use of erosion control devices and wet-weather closures provides for a beneficial effect for maintenance keeping the opportunities open for a recreation experience. The total miles of seasonally-open roads changed by 898 miles for various reasons, with resource protection the predominant reason. There are 1,054 miles open year-round and 909 miles open seasonally. Refer to Appendix A for more information regarding specific reasons for seasons of

use. The season of use on the majority of existing motorized trails would not. The season of use on the Spanish Trail on the most southern portion of the SNF would change from opening June 15 to opening 45 days later on August 1. The delay in opening this trail may not impact the majority of users, however there will be a few visitors adversely impacted. Spanish Trail is still open through the end of hunting season accommodating most deer hunting visitors. In addition, seasonal changes may adversely impact operators of off-highway vehicles with red stickers. Red sticker vehicles are able to operate on the Sierra National Forest between October 1 and May 31 on motorized trails and roads open to all vehicles. A majority of the roads and trails are open for use from mid to late May to either October 30 or November 30.

Access to dispersed recreation for many of the sites would have a season of use to protect natural and cultural resources. The season of use for the facilities, managed sites and the one 6-acre area would conform to the access roads' designated season of use. Changes in dispersed recreation sites season of use would include 23 percent of dispersed recreation sites would change from open year-round to a specific season of use. Of the remaining 6 percent of the areas, one site has no change to the open date, and will have a greater season of use, two sites open earlier in the year, and five sites open 10 days to a few months later in the year and remain open later in the year. These changes in seasons are expected to be minimally adverse to neutral with 77 percent of the sites having no change to the season of use.

Neighboring private and Federal lands may experience a beneficial effect from changes to the NFTS. Vehicle use would be reduced in certain areas where private lands are located. Specifically, the season of use for motorized recreation opportunities near private land in the Westfall Analysis Unit would decrease noise during the wet rainy season.

## Non-Significant LRMP Amendments

Current LRMP direction is to "Maintain acreages in each ROS class to meet objectives shown on ROS element map (USDA-FS 1991, p. 4-13)." Without an amendment to S&G #2, Alternative 2 would not be consistent with this direction because of the proposed additions to the NFTS within Semi-Primitive Non-Motorized ROS Class. The proposed amendment would change the ROS class for the area immediately surrounding the additional motorized to Semi-Primitive Motorized ROS class to recognize existing motorized access and allow the addition of routes to the NFTS to provide needed semi-primitive motorized opportunities.

The effects of the proposed amendment, as shown in Table 3- 8, removes 512 acres from Semi-Primitive Non-Motorized to Semi-Primitive Motorized ROS Classes to allow the proposed 0.8 miles of NFTS trails to be designated for motor vehicle use. The remaining acreage would retain the semi-primitive non-motorized nature. There are no impacts to Congressionally-designated wilderness, wild and scenic rivers or any other designation.

The overall percentage of change of acres of Semi-Primitive Non-Motorized would have a neutral effect. Eight (8) percent of the SNF would remain designated as Semi-Primitive Non-Motorized.

## Cumulative Effects

### Cross-country Motor Vehicle Travel

ROS has the potential to be impacted by future temporary roads for fuel reduction and timber harvesting as well as log landings. However, current direction is to decommission temporary roads when the timber sale is completed. Therefore there are no contributions to adverse cumulative effects for ROS.

There are increased opportunities for non-motorized recreation away from the NFTS. There are no contributions to adverse cumulative effects for non-motorized recreation.

There is a diversity of motorized opportunities between the 1,461 miles of roads open to all vehicles, addition to the NFTS, and the existing system of primitive roads managed as motorized trails. There is a net loss in acreage available for motorized use. Therefore, there are no contributions to adverse cumulative effects for motorized recreation.

Dispersed recreational opportunities would continue to be available. However, there is a loss of access to over 1,000 dispersed parking areas greater than 30 feet from the road or accessed off an unauthorized route not brought forward for designation in this Alternative. Timber sales and fuel reduction may open logging decks that have the potential for additional parking for access to dispersed recreation. It is unknown what this contribution would be; as a result there are no contributions to adverse cumulative effects for access to dispersed recreation.

There is a beneficial effect for adjacent land owners and public lands and there are no adverse cumulative effects for these entities.

### Additions to the NFTS

The addition of 44 miles of roads and motorized trails does not create any adverse cumulative effects for ROS, inventoried roadless areas, access to non-motorized activities, motorized recreation, access to dispersed recreation, or impacts to adjacent public and private lands.

### Changes to the NFTS

The changes to the NFTS (roads and motorized trails) does not create any adverse cumulative effects for ROS, access to non-motorized activities, motorized recreation, access to dispersed recreation or impacts to adjacent public and private lands.

### Non-Significant LRMP Amendments

A non-significant LRMP amendment would be implemented allowing for 0.8 miles of motorized trail opportunity to be used by the visiting public. This does not change the overall 8 percent of the ROS acreage in the Semi-Primitive Non-Motorized classification.

## Alternative 3

Of all the alternatives, Alternative 3 would provide the least motorized recreation opportunity in terms of diversity and miles of routes available for motor vehicle use. The current baseline NFTS would remain in place and no additional routes would be added to the system. Cross-country travel would be prohibited. The SNF would continue to implement the 1998 Road Closure plan. A Motor Vehicle Use Map (MVUM) of the designated system would be printed.

## Direct and Indirect Effects

### Cross-country Motor Vehicle Travel

ROS classes would be compatible with the LRMP because the 10.6 miles of unauthorized routes located in the Primitive class and 10.3 miles of unauthorized routes in Semi-Primitive Non-Motorized would be closed to motorized travel.

Prohibiting motor vehicle use on 12 miles of unauthorized routes would be a beneficial affect on the inventoried roadless areas.

Compared to all other alternatives, there would be the greatest increase in acreage available for non-motorized recreation activities without the potential for use conflicts with motor vehicles. Utilizing the analysis of acres ½ mile from an area where motorized use is proposed and including designated roads, trails and areas in the NFTS, there would be a net gain in acreage (71,063 acres) for quiet recreation activities in both the long and short term.

There would be an adverse affect on motorized recreation in Alternative 3. Cross-country travel would be prohibited, eliminating use on approximately 605,000 acres, although 1,650 miles of NFTS roads and trails would remain available to all vehicles. The quality of the recreation opportunity would be most affected. Much of the NFTS does not provide a quality recreation opportunity especially for those using non-highway legal motor vehicles. Use would be mostly limited to existing mixed use (ML 2) roads, which do not necessarily provide continuity or loops. In addition, challenging opportunities would be limited to the 57 miles of motorized trails and 41 miles of primitive roads managed as motorized trails. This is the least desirable alternative for motorized recreation.

There would be an adverse effect to motor vehicle access for dispersed recreation. Over 1,000 dispersed recreation sites would no longer be accessible by motor vehicle (though non- motorized access would remain available). There is a loss of access through the loss of unauthorized routes or the site being greater than 30 feet from NFTS. NFTS parking and managed areas would still be available.

The beneficial effect of prohibiting cross-country motorized use would be the reduction of noise, dust and physical presence. There would be a reduction of conflict with the neighboring private and Federal lands. The 208 miles within ½ mile of private property and Federal lands would no longer be in use. One adverse effect would be direct access for motorized recreation from adjacent private property would no longer be allowed (i.e. unauthorized routes from private property directly onto NFS lands would be prohibited).

### Additions to the NFTS

No facilities would be added, ROS would be compatible with the LRMP, and there would be no additions to NFTS roads, motorized trails or areas.

### Changes to the NFTS

There would be no changes in vehicle class or season of use for the NFTS. The SNF would continue to implement the 1998 Road Closure plan. The lack of changes would benefit the operators of red stickered vehicles with 1,402 miles roads open to All Vehicles.

### Non-Significant LRMP Amendments

There would be no non-significant amendment issued under this alternative.

### Cumulative Effects

#### Cross-country Motor Vehicle Travel

Adverse cumulative effects to ROS may occur over the next 10 to 20 years with the construction of temporary roads and landings for accessing timber. However, according to the prescription, all temporary roads would be closed at the resolution of the timber projects. If the temporary roads are decommissioned, the long term effect is minimal.

There would be increased opportunities for non-motorized recreation away from the NFTS. There would be no contributions to adverse cumulative effects for non-motorized recreation.

Motorized recreation would be adversely impacted by this alternative because cross-country travel would be prohibited and no unauthorized routes would be added to the NFTS. This would result in a cumulative loss of motorized recreation opportunities. A review of Appendix E does not identify any additional adverse effects.

Dispersed recreational opportunities would continue to be available. However, there would be a loss of motor vehicle access to over 1,000 dispersed parking areas greater than 30 feet from the road or accessed off an unauthorized route. The loss of motorized access for parking near dispersed recreation activities would be an adverse impact for some forest visitors. Activities listed in Appendix E do not contribute to cumulative adverse effects.

A beneficial effect would occur for adjacent private property owners and other public land uses. There would be no unauthorized routes creating dust or noise near the neighboring private and public lands. Due to this beneficial effect, there are no cumulative adverse effects.

### Additions to the NFTS

No facilities would be added; there would be no additions to the NFTS roads, motorized trails or areas. The restriction to travel on this section of the SNF would be a beneficial impact on the land, and therefore will not contribute to cumulative adverse effects.

### Changes to the NFTS

There would be no changes in vehicle class or season of use for the NFTS. As with additions to the NFTS, the restriction to travel (with the seasonal changes outlined in the 1998 Road Closure Plan) will have a beneficial impact on the land, and therefore will not contribute to cumulative adverse effects.

### Non-Significant LRMP Amendments

There will be no non-significant amendment issued under this alternative.

## Alternative 4

In summary, 51 miles of roads and motorized trails are proposed for addition to the NFTS. Cross-country travel would be prohibited. Seasons and types of use for roads and motorized trails would be established. A Motor Vehicle Use Map (MVUM) of the designated system would be printed.

### Direct and Indirect Effects

#### Cross-country Motor Vehicle Travel

ROS would be compatible with the intent of the LMRP for Roded Natural and Primitive. There would be a direct beneficial effect for the Primitive ROS class as 10.6 miles (6,790 acres) of unauthorized routes would no longer allow motor vehicle use. There is a direct beneficial effect in the Semi-Primitive Non-Motorized ROS class as 8.7 miles (5,573 acres) of unauthorized routes would not allow motor vehicle use. Alternative 4 has a potential adverse effect to the Semi-Primitive Non-Motorized ROS class with a 1,074-acre reduction. These acres would be changed to Semi-Primitive Motorized ROS.

There would be more of a beneficial effect to non-motorized recreation when compared to Alternative 1. Cross-country travel would be prohibited resulting in less wheeled motor vehicle activity. Motorized trails would be identified to reduce potential user conflict with non-motorized activities (locations where non-motorized recreation would be the predominant use and motorized recreation would neither be expected nor desired) but still provide sufficient motorized access for such activities. Utilizing the analysis of acres ½ mile from where motorized use is proposed and including designated roads, trails and areas in the NFTS, there would be a 70,677 net gain in acreage available for quiet recreation and non-motorized activities.

There would be more of an adverse affect to motorized recreation when compared to Alternative 1. Alternative 4 would provide wheeled motor vehicle routes (108 miles) available for a variety of OHV opportunities. There would be a net loss of approximately 605,000 acres available for wheeled motor vehicle activities due to the prohibition of cross-country travel. Motorized recreation opportunity would be focused on a designated system. Although there would be an addition of 42 miles of motorized trails, there would be an adverse effect due to 1) the reduction would compress the existing and future use into a limited, designated system and 2) the prohibition of motorized travel on 474 remaining miles of unauthorized routes would reduce motorized recreation opportunities. However, there would be 1,417 miles of roads open to all vehicles.

Motorized access to dispersed recreation would be decreased by over 1,000 parking and/or riding areas when compared to Alternative 1, due to the prohibition of use of unauthorized routes. However dispersed camping accessed from NFTS roads and facilities, and the managed system roads would continue.

Neighboring private and other Federal lands would benefit from the prohibition of cross-country motorized travel on the SNF. The prohibition would reduce noise, dust and vehicle use within ½ mile of private property and other public lands from 208 miles to 12 miles. One adverse effect would be the loss of direct access for motorized recreation from adjacent private property (i.e. unauthorized routes from private property directly onto NFS lands would be prohibited).

## Additions to the NFTS

Addition of the proposed routes and area would be compatible with Roded Natural and Primitive ROS classes as intended in the LMRP. Predominant use would be in Roded Natural ROS class. There would be 1.6 miles of proposed additions located in Semi-Primitive Non-Motorized ROS class. There would be no additional facilities in established non-motorized areas or inventoried roadless areas.

Alternative 4 would provide designated trails contributing to the variety of the riding experience (7 percent motorcycle, 45 percent ATV and quads, and 48 percent four wheel drive). This alternative would provide the smallest range of terrain challenge (60 percent easy, 34 percent moderate and 7 percent difficult). In some areas the riding experience would be enhanced due to extended riding time with access to loops and a larger network of roads and trails. Although 51 miles of motorized trails would be added to the NFST, compressing existing and future use into a limited, designated system would be an adverse affect on the motorized recreation experience. However, there would be 57 miles of motorized trails, 41 miles of primitive roads managed as motorized trails and 1,417 miles of roads open to non-highway legal vehicles.

Access to dispersed recreation would continue to hundreds of NFTS facilities, managed sites, and the addition of 11 areas (37 acres). Five of the areas (34 acres) would provide a motorized recreation experience. Open to all trail vehicles, these areas would provide an unstructured environment. Six of the areas (3 acres) would be parking areas for highway-legal vehicles only.

Parking areas tend to be used to access dispersed recreation while areas open to all trail vehicles provide a recreation experience.

Of the 51 miles of unauthorized routes proposed for designation in this alternative, 12 miles would be located within ½ mile of neighboring private property and other public lands. This would have the potential adverse effect of providing noise, however slight, to the private property owner. This alternative would have the lowest percentage (24 percent) of proposed new NFTS facilities (roads/trails/areas) within ½ mile of private property. However, the reduction of 196 miles of unauthorized routes within ½ mile of neighboring private and federal lands would be a beneficial effect.

## Changes to the NFTS

Changes to the NFTS would be consistent with the current ROS classification.

There would be no changes to the NFTS that would impact established non-motorized areas.

Motorized recreation would be benefit by changes in allowed vehicle types: 25 additional miles would be changed from HLO to available for travel by non-highway legal vehicles; 60 miles of closed roads would be opened for travel by non-highway legal vehicles; and a total of 1,417 miles of road would remain open for travel by non-highway legal vehicles. This would provide visitors with more connectivity between motorized trails resulting in longer loop opportunities. Nine miles of roads would be converted to motorized trails resulting in a total of 108 miles of motorized trails.

Changes in the season of use would have the potential to improve tread conditions. Miles of seasonally-open roads would change by 1,742 miles for various reasons, with resource protection the predominant reason. There would be 383 miles open year-round, 1,512 miles open seasonally, and 383 miles closed year-round. In addition, seasonal changes may adversely impact operators of off-highway vehicles with red stickers. Red sticker vehicles are able to operate on the Sierra National Forest between October 1 and May 31 on motorized trails and roads open to all vehicles. A majority of the roads and trails would be open for use from mid to late May and close either October 30 or November 30. See Appendix A for more information regarding specific reasons for seasonal open periods.

Motorized access to dispersed recreation for many of the sites would be seasonally open to protect natural and cultural resources. The seasonal open period for the facilities, managed sites including the additional 11 proposed sites will conform to the seasonal open period of the access road. There are few changes to the seasonal period. Thirty-seven (37) percent of sites to access dispersed recreation that were changed to have a season of use did not have any season identified, 13 percent of the sites will delay opening, usually 15 to 60 days delayed, 47 percent have no change from Alternative 1 and of the remaining 3 percent of the areas, four will have a longer season of use, and four will have shorter seasons of the use

Neighboring private and Federal lands may experience a beneficial effect from changes to the NFTS. Vehicle use would be reduced in certain areas where private lands are located. Specifically, the motor vehicle season of use near private land in the Westfall Analysis Unit would prevent noise during the wet rainy season.

## Non-Significant LRMP Amendments

Current LRMP direction is to “Maintain acreages in each ROS class to meet objectives shown on ROS element map (USDA-FS 1991 p. 4-13).” Alternative 4 would not be consistent with this direction because of proposed additions to the NFTS within Semi-Primitive Non-Motorized ROS Class as mapped during LRMP development. The proposed amendment would change the ROS

class for the area immediately surrounding the route added to the NFTS in Semi-Primitive Non-Motorized ROS class to Semi-Primitive Motorized ROS class. This would recognize existing motorized access and allow the addition of roads and motorized trails to the NFTS to provided needed semi-primitive motorized opportunities.

The proposed amendment in Alternative 4 as shown in Table 3-8, would move 1,074 acres from Semi-Primitive Non-Motorized to Semi-Primitive Motorized ROS Classes. This would allow the proposed designation of 1.6 miles of NFTS motorized trails to be consistent with the LMRP. The remaining acreage would retain the semi-primitive non-motorized nature. There would be no impacts to Congressionally-designated wilderness, wild and scenic rivers or any other designation.

## Cumulative Effects

### Cross-country Motor Vehicle Travel

ROS has the potential to be impacted by future temporary roads for fuel reduction and timber harvesting as well as log landings. However, current direction is to decommission temporary roads when the timber sale is completed. Therefore there would be no contributions to adverse cumulative effects for ROS.

There would be increased opportunities for non-motorized recreation away from the NFTS. There would be no contributions to adverse cumulative effects for non-motorized recreation.

There would be a diversity of motorized opportunities between the 1,417 miles of roads open to all vehicles, addition to the NFTS, and the existing system of primitive roads managed as motorized trails. There would be a net loss in acreage available for motorized use. Therefore, there would no contributions to adverse cumulative effects for motorized recreation.

Motor vehicle access for dispersed recreational opportunities would continue to be available. However, there would be a loss of motor vehicle access to over 1,000 dispersed parking areas greater than 30 feet from the road or accessed off an unauthorized route not brought forward in this Alternative for designation. Timber sales and fuel reduction may open logging decks that have the potential for additional parking areas for access to dispersed recreation. It is unknown what the contribution would be; as a result, there would be no contributions to adverse cumulative effects for access to dispersed recreation.

There would be a beneficial effect for adjacent land owners and other public lands and there would be no adverse cumulative effects for these entities.

### Additions to the NFTS

ROS would be slightly impacted with the addition of motorized transportation facilities. There would be 1.64 miles of proposed motorized trails located in the Semi-Primitive Non-Motorized ROS Class. The impact results in a 0.001% loss of Semi-Primitive Non-Motorized acres.

Facilities being added have a beneficial effect for non-motorized recreation experiences with an increase of acreage where vehicles are not allowed to travel. The net loss of 604,938 acres of cross-country travel increases the available acreage for quiet recreation.

Although this alternative would add 51 miles of NFTS designated for motor vehicle use, there is a perception it adversely compresses OHV opportunities. However, the proposed additional access to roads by non-highway legal vehicles is beneficial. Seasons of use identified for the designated system would benefit the natural and cultural resources. A variety of motorized opportunities would be available to accommodate a variety of vehicle classes and difficulty levels distributed

across the SNF. Although a reduction in miles of unauthorized routes would occur, and seasons of use would be designated on some trails, this system would be manageable and sustainable.

Dispersed recreational opportunities would continue. Motorized use conflicts with adjacent ownership would be minimized.

## Changes to the NFTS

The changes in seasons and vehicle types for roads and trails would not create any adverse cumulative effects for ROS, access to non-motorized activities, motorized recreation, access to dispersed recreation, or impacts to adjacent public and private lands.

## Non-Significant LRMP Amendments

A non-significant LRMP amendment would be implemented allowing for 1.6 miles of motorized trail opportunity to be used by the visiting public. The acreage change is statistically insignificant and it does not change the overall 8 percent of the Semi-Primitive Non-Motorized ROS acreage available across the forest.

## Alternative 5

In summary, 85 miles of roads and trails are proposed for addition to the NFTS. Cross-country travel would be prohibited. Seasons and types of use for roads and motorized trails would be established. Of the five alternatives, Alternative 5 would provide the maximum additions for motorized opportunities. This alternative responds to the impacts to motorized access issue by providing additional motorized trails, providing additional combined and mixed use roads and providing more motor vehicle access to dispersed recreation activities than alternatives 2, 3 and 4. A Motor Vehicle Map (MVUM) of the designated system would be printed.

## Direct and Indirect Effects

### Cross-country Motor Vehicle Travel

ROS would be compatible with the intent of the LMRP for Roded Natural and Primitive. There would be a direct beneficial affect on the Primitive ROS class as 10.6 miles (6,790 acres) of unauthorized routes would no longer allow motor vehicle use. There would be a direct beneficial affect on the Semi-Primitive Non-Motorized ROS class as 8.7 miles (5,573 acres) of unauthorized routes would not allow motor vehicle use. Alternative 5 has a potential adverse effect to the Semi-Primitive Non-Motorized ROS class due to moving 1,074 acres to Semi-Primitive Motorized ROS.

Prohibiting motor vehicle use on 12 miles of unauthorized routes in the inventoried roadless areas would be a beneficial affect.

There would be more of a beneficial affect to non-motorized recreation when compared to Alternative 1. Cross-country travel would be prohibited resulting in less wheeled motor vehicle activity. Motorized trails would be identified to reduce potential user conflict with non-motorized activities (locations where non-motorized recreation would be the predominant use and motorized recreation would be neither expected nor desired) but still provide sufficient motorized access for such activities. Utilizing the analysis of acres  $\frac{1}{2}$  mile from an area where motorized use is proposed and including designated roads, trails and areas in the NFTS, there would be a 70,395 net gain in acreage available for quiet recreation and non-motorized activities.

There would be more of an adverse affect on motorized recreation when compared to Alternative 1. Alternative 5 would provide wheeled motor vehicle routes (140 miles) available for a variety of OHV opportunities. There would be a net loss of approximately 605,000 acres available for wheeled motor vehicle activities due to the prohibition of cross-country travel. Motorized recreation opportunity would be focused on a designated system. Although there would be an addition of 85 miles of motorized trails, there would be an adverse impact due to (1) the reduction would compress the existing and future use into a limited, designated system and (2) the prohibition of motorized travel on 453 remaining miles of unauthorized routes would reduce motorized recreation opportunities. However, there would be 1,647 miles of roads seasonally open to all vehicles.

Motorized access to dispersed recreation would be decreased by over 1,000 parking and/or riding areas compared to Alternative 1, due to the prohibition of motor vehicle use on unauthorized routes. However, dispersed camping accessed from NFTS roads, trails and facilities, and the managed areas will continue.

Neighboring private and public lands would benefit from the prohibition of cross-country motorized travel on the SNF. The prohibition would reduce noise, dust and vehicle use within ½ mile of private property and other public lands from 208 miles of unauthorized routes to 26 miles. One adverse effect would be the loss of direct access for motorized recreation from adjacent private property (i.e. routes from private property directly onto NFS lands would be prohibited).

### Additions to the NFTS

Addition of the proposed roads, motorized trails and area would be compatible with Roded Natural and Primitive ROS classes as intended in the LMRP. Predominate use would be in the Roded Natural ROS Class. There would be 0.8 miles of proposed additions located in Semi-Primitive Non-Motorized. There would be no facilities being added in established non-motorized areas.

Alternative 5 would provide designated trails contributing to the variety of the riding experience (9 percent motorcycles, 46 percent ATV and quads and 45 percent four-wheel drive). This alternative has a range of difficulty (66 percent easy, 28 percent moderate and 5 percent difficult). In some areas the motorized recreation experience would be enhanced due to extended riding time with access to loops and a larger network of roads and trails. There would be an adverse effect by prohibiting cross-country travel to only 70 miles of trails and there is concern that this reduction of opportunity would compresses the existing and future use into a limited, designated system. Though only 85 miles of roads and trails would be added to NFTS, there are 57 miles of motorized trails and 40 miles of primitive roads managed as motorized trails and 1,647 miles of roads open to non-highway legal vehicles.

Motor vehicle access to dispersed recreation would continue to hundreds of NFTS facilities, managed sites, and through the addition of 20 areas (105 acres). Ten of the areas (98 acres) would be available for a motorized recreation experience. Open to all trail vehicles, these areas would provide an unstructured environment. The remaining ten areas (7 acres) are parking locations for highway-legal vehicles only. Parking tends to be used to access dispersed recreation while areas open to all trail vehicles provide a recreation experience.

Of the 85 miles of unauthorized routes proposed for designation in this alternative, 26 miles would be located within ½ mile of neighboring private property and public lands. Motor vehicle use of these miles would have the potential adverse effect of providing noise, however slight, to the private property owner. This alternative would have 31 percent of proposed new NFTS facilities (roads/trails/areas) within ½ mile of private property. However, there would be a

beneficial effect with the reduction of 182 miles of unauthorized routes within ½ mile of neighboring private and federal lands.

## Changes to the NFTS

Changes to the NFTS would be consistent with the current ROS classification.

There would be no changes to the NFTS that would impact established non-motorized areas or inventoried roadless areas.

Motorized recreation users would benefit from changes in allowed vehicle types: 125 additional miles would be changed from highway-legal only to available for travel by non-highway legal vehicles; 60 miles of closed roads would be opened for travel by non-highway legal vehicles; and 1,647 miles of road would remain seasonally open for travel by non-highway legal vehicles. In addition, 53 miles of NFTS roads designed for use by highway-legal only vehicles would allow non-highway legal vehicles (mixed use). These changes, along with 12 miles of roads converted to trails, would provide a beneficial direct effect by providing visitors recreating with non-highway legal vehicles more connectivity between the cumulative 139 miles of motorized trails and 1,647 miles of roads, resulting in longer loop opportunities. This would provide visitors with more connectivity between motorized trails resulting in longer loop opportunities. Changes to the seasons of use would improve tread conditions. Stabilizing the tread through the use of erosion control devices and wet-weather closures would provide a beneficial effect for maintenance and the recreation experience. Seasonally open roads would change 1,569 miles for various reasons, with resource protection the predominant reason. There would be 460 miles open year-round and 1,532 miles open seasonally. In addition, seasonal changes may adversely impact operators of off-highway vehicles with red stickers. Red sticker vehicles are able to operate on the Sierra National Forest between October 1 and May 31 on motorized trails and roads open to all vehicles. A majority of the roads and trails would be open for use from mid to late May and close either October 30 or November 30. See Appendix A for more information regarding specific reasons for seasonal open periods.

Motor vehicle access to dispersed recreation for many of the sites would be seasonally open to protect natural and cultural resources. The seasons of use for the transportation facilities, managed sites and the 20 proposed sites would conform to the season of use of the access road. There would be few changes to the seasonal period. Eighty-two (82) percent would not change from Alternative 1, 14 percent would delay the opening of the area, usually 15 to 30 days, the remaining 4 percent would include four areas with longer seasons, and four areas with shorter seasons.

Neighboring private and Federal lands would benefit from changes to the NFTS. Motor vehicle use would be reduced in certain areas where private lands are located. Specifically, the season of use for motorized recreation opportunities near private land in the Westfall Analysis Unit would result in less noise during the wet rainy season.

## Non-Significant LRMP Amendments

The Recreation Opportunity Spectrum assesses existing recreation characteristics on the thorough application of a set of criteria: remoteness, size, evidence of humans, user density, and managerial regimentation and notice ability. The criteria are used to assign one of seven ROS classes to geographic areas on the forest: Primitive, semi-primitive non-motorized, roaded natural, roaded modified, rural and urban. The current ROS classes for the SNF were mapped as part of the development of the LRMP in the mid 1980s. The current distribution of ROS classes is shown on the LRMP map entitled “Recreation Opportunity Class Objective Map.” The ROS boundaries shown on this map were digitized and used in the following analysis.

Current LRMP direction is to “Maintain acreages in each ROS class to meet objectives shown on ROS element map (USDA-FS 1991, p. 4-13).” Alternative 5 would not be consistent with this direction because of proposed additions to the NFTS within Semi-Primitive Non-Motorized ROS Class as mapped during LRMP development. The proposed amendment would change the ROS class for the area immediately surrounding the road or motorized trail added to the NFTS in Semi-Primitive Non-Motorized ROS class to recognize existing motorized access and allow the addition of routes to the NFTS to provide needed semi-primitive motorized opportunities.

The proposed amendment in Alternative 5 as shown in Table 3- 8 would move 1,074 acres from Semi-Primitive Non-Motorized to Semi-Primitive Motorized ROS Classes to allow the proposed 1.6 miles of NFTS motorized trails to be designated. The remaining acreage would retain the semi-primitive non-motorized nature. There would be no impacts to Congressionally-designated wilderness, wild and scenic rivers or any other designation.

The overall percentage change of acres of Semi-Primitive Non-Motorized will have a neutral effect. Nine (9) percent of the SNF is designated as Semi-Primitive Non-Motorized.

## Cumulative Effects

### Cross-country Motor Vehicle Travel

ROS has the potential to be impacted by future temporary roads for fuel reduction and timber harvesting as well as the development of log landings. However, current direction is to decommission temporary roads when the timber sale is completed. Therefore, there would be no contributions to adverse cumulative effects for ROS. There would be increased opportunities for non-motorized recreation away from the NFTS. There would be no contributions to adverse cumulative effects for non-motorized recreation.

There would be a diversity of motorized opportunities between the 1,647 miles of roads open to all vehicles, additions to the NFTS, and the existing system of primitive roads managed as motorized trails. There would be a net loss in acreage available for motorized use.

Motor vehicle access to dispersed recreational opportunities would continue to be available. However, there would be a loss of access to over 1,000 dispersed parking areas greater than 30 feet from the road or accessed off an unauthorized route not designated in this alternative. Timber sales and fuel reduction may open logging decks that could have the potential for additional parking for access to dispersed recreation. It is unknown what the contribution would be; as a result there would be no contributions to adverse cumulative effects for access to dispersed recreation.

There would be a beneficial effect for adjacent land owners and public lands and there would be no adverse cumulative effects for these entities.

### Additions to the NFTS

The addition of 85 miles of roads and trails and 20 areas would not create any adverse cumulative effects for ROS, inventoried roadless areas, access to non-motorized activities, motorized recreation, access to dispersed recreation, or impacts to adjacent public and private lands.

### Changes to the NFTS

The changes to the NFTS (roads and motorized trails) would not create any adverse cumulative effects for ROS, access to non-motorized activities, motorized recreation, access to dispersed recreation or impacts to adjacent public and private lands.

## Non-Significant LRMP Amendments

A non-significant LRMP amendment would be implemented allowing for 1.6 miles of motorized trail opportunity to be used by the visiting public. This would not change the overall 8 percent of the ROS acreage in the Semi-Primitive Non-Motorized classification on the SNF.

## Compliance with the LRMP and Other Direction

Alternatives 2, 3, 4 and 5 are consistent with:

Sierra National Forest Land and Resource Management Plan and best meet LRMP objectives for this area.

**Travel Management Rule (36 CFR 212, 251, 261 and 295):** The SNF Travel Management EIS is designed to implement the requirements of the November 5, 2005 Rule for Travel Management.