



United States
Department of
Agriculture

Forest
Service

Pacific
Southwest
Region

R5-MB-182
January 2009

Draft Environmental Impact Statement

Inyo National Forest Motorized Travel Management



Inyo Mountains Focus Area

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Motorized Travel Management EIS

Draft Environmental Impact Statement

Lead Agency: USDA Forest Service
Responsible Official: Jim Upchurch, Forest Supervisor
Inyo National Forest
351 Pacu Lane, Suite 200
Bishop, CA 93514

For Further Information Contact:

Susan Joyce, Forest Planner
Inyo National Forest
351 Pacu Lane, Suite 200
Bishop, CA 93514
(760) 873-2516

Abstract: This Draft Environmental Impact Statement (DEIS) describes the environmental effects of a proposal by the Inyo National Forest (INF) to: (1) Prohibit cross-country motor vehicle travel off designated National Forest System (NFS) roads, motorized trails and areas by the public except as allowed by permit or other authorization (excluding snowmobile use); (2) Add 929 miles of unauthorized routes to the current National Forest Transportation System (NFTS) as roads and motorized trails; and (3) Reclassify 21 miles of existing NFTS roads as NFTS motorized trails.

These actions are needed in order to implement the 2005 Travel Management Rule (36 CFR Part 212, Subpart B) while providing for a diversity of motor vehicle recreation opportunities, and providing motorized access to dispersed recreation opportunities on the INF. The DEIS discloses environmental impacts associated with the proposed action, a no action alternative, and four additional action alternatives developed in response to issues raised by the public.

It is important that reviewers provide their comments at such times and in such a way that they are useful to the Agency's preparation of the EIS. Therefore, comments should be provided prior to the close of the comment period and should clearly articulate the reviewer's concerns and contentions. The submission of timely and specific comments can affect a reviewer's ability to participate in subsequent administrative review or judicial review.

Comments received in response to this solicitation, including names and addresses of those who comment, will be part of the project record. Comments submitted anonymously will be accepted and considered; however, anonymous comments will not provide the respondent with standing to participate in subsequent administrative review or judicial review.

Summary of the Draft Environmental Impact Statement

Proposed Action

The Inyo National Forest (INF) proposes to: (1) Prohibit cross-country motor vehicle travel off designated National Forest Transportation System (NFTS or system) roads, motorized trails and areas by the public except as allowed by permit or other authorization (excluding snowmobile use); (2) Add 876 miles of unauthorized routes to the NFTS as roads and 53 miles to the NFTS as motorized trails; (3) Convert 12 miles of existing NFTS road to NFTS motorized trails open to vehicles 50 inches or less and 9 miles of NFTS road to trails open to motorcycles; and (4) Close 28 miles of existing NFTS roads to public motor vehicle use, retaining 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Significant Issues

Internal and external scoping identified the following significant issues which were used to develop the alternatives considered in detail described below. The significant issues include the following:

Issue #1. The route inventory identified 1,699 miles of existing unauthorized routes and the proposed action only adds 929 miles of these to the NFTS. Reducing the miles of routes available for public motorized use and prohibiting cross-country travel will adversely affect the quality and quantity of motorized recreation experiences because it:

- Does not provide adequate access to key destinations, including campsites, scenic overlooks, and hunting areas;
- Reduces the amount of loops and connectors to provide longer riding time and spurs for exploration;
- Reduces the diversity of opportunities for different vehicles (ATVs, motorcycles, 4WD); and
- Reduces semi-primitive riding opportunities and experiences.

Issue #2. Public motorized use of roads and trails as described in the Proposed Action will adversely affect non-motorized recreation experiences due to engine noise, dust, conflicts, and reduced aesthetic values.

Issue #3. Public motorized use of roads and trails as described in the Proposed Action will adversely affect forest resources. This includes:

- Erosion, soil compaction, and reduction in water quality;
- Degradation of habitat for fish, wildlife, and rare plants;
- Damage to heritage resources;

- Proliferation of weeds; and
- Inventoried roadless area character, compromising future wilderness designation

Alternatives Considered in Detail

This DEIS discloses the effects of six alternatives: the No Action, the Proposed Action, and four other action alternatives generated in response to the significant issues listed above. The six alternatives and required Forest Plan amendments are described in complete detail in Chapter 2 of this document.

Alternative 1 (No Action). The No Action alternative provides a baseline for comparing the other alternatives. Under the No Action alternative, current management direction would continue to guide motorized travel on the Forest. The Travel Management Rule would not be implemented, and no changes would be made to the current NFTS (approximately 1,341 miles of roads open to all vehicles), no permanent forest order prohibiting cross country travel would be established, and no Motor Vehicle Use Map (MVUM) showing designated roads, trails, and areas would be produced. Public motor vehicle use of all existing unauthorized routes (1,699 miles) would continue, but these routes would have no status or authorization as NFTS facilities.

Alternative 2 (Proposed Action). Alternative 2 is the Proposed Action described in the Notice of Intent (NOI) published October 1, 2007 with minor corrections. Alternative 2:

- Prohibits cross-country motorized travel off of designated roads, trails and the Poleta open area.
- Adds 876 miles of unauthorized routes as NFTS roads.
- Adds 53 miles of unauthorized routes as NFTS motorized trails.
- Converts 12 miles of existing NFTS road to NFTS motorized trails open to vehicles 50 inches or less and 9 miles of NFTS road to trails open to motorcycles.
- Closes 28 miles of existing NFTS roads to public motor vehicle use and retains 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Alternative 3. Alternative 3 responds to access and recreation concerns raised during the public comment process (Issue #1). This alternative places less emphasis on avoiding concerns with forest resource conditions, and adds unauthorized routes to the system as roads or motorized trails based on public comments. Alternative 3:

- Prohibits cross-country motorized travel off of designated roads, trails and the Poleta open area.
- Adds 847 miles of unauthorized routes as NFTS roads.
- Adds 344 miles of unauthorized routes as NFTS motorized trails.
- Converts 189 miles of NFTS roads to NFTS motorized trails.
- Closes 28 miles of existing NFTS roads to public motor vehicle use and retains 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Alternative 4. Alternative 4 responds to issues related to non-motorized recreation and natural resource impacts (Issues #2 and 3). This alternative considers adding routes to the system based on public comment and to meet the needs of Forest use and administration, but emphasizes avoiding resource concerns. This alternative:

- Prohibits cross-country motorized travel off of designated roads and trails.
- Limits motorized use in the Poleta open area to 5 miles of existing NFTS roads and 8 miles of unauthorized routes added to the NFTS as roads and trails. Cross country vehicle travel would be prohibited.
- Adds 660 miles of unauthorized routes as NFTS roads.
- Adds 35 miles of unauthorized routes as NFTS motorized trails.
- Converts 161 miles of NFTS roads to NFTS motorized trails.
- Closes 28 miles of existing NFTS roads to public motor vehicle use and retains 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Alternative 5. Alternative 5 responds to issues related to non-motorized recreation and natural resource impacts (Issues #2 and 3). This alternative:

- Prohibits cross-country motorized travel off of designated roads, trails and the Poleta open area.
- Closes 28 miles of existing NFTS roads to public motor vehicle use and retains 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization). No other changes to the NFTS are proposed.

Alternative 6. Alternative 6 responds to Issues #1, 2, and 3. This alternative emphasizes balancing the addition of routes important to the public with resource concerns raised during scoping. This alternative modifies the Proposed Action by incorporating suggestions provided by members of an independent collaborative group convened by the Desert Mountain Resource Conservation and Development Council. This alternative:

- Prohibits cross-country motorized travel off of designated roads, trails and the Poleta open area.
- Adds 861 miles of unauthorized routes as NFTS roads.
- Adds 134 miles of unauthorized routes as NFTS motorized trails.
- Converts 161 miles of NFTS roads to NFTS motorized trails.
- Closes 28 miles of existing NFTS roads to public motor vehicle use and retains 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Summary of Environmental Consequences

The following table summarizes the effects of the six alternatives on natural, cultural, and social resources. Effects are described in more detail in Chapter 3 of this document.

Table i-1: Summary of Direct and Indirect Effects of the Alternatives on Forest Resources

Resource Area	Indicator	Alt 1 ^a	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Aquatic Wildlife	Overall effect of routes within or adjacent to TES aquatic biota habitat.	Moderate	Negligible	Minor	Negligible	Beneficial	Negligible
Botanical Resources	Number of sensitive/watch list species/fens within 100 feet of routes available for motorized use ^b	107 / 202 / 4	49 / 75 / 1	66 / 89 / 4	8 / 67 / 0	2 / 1 / 0	58 / 76 / 2
Cultural Resources	Number of cultural sites at risk	82	49	62	33	0	54
Economics	Visitor spending	No measurable effect	No measurable effect	No measurable effect	No measurable effect	No measurable effect	No measurable effect
Inventoried Roadless Areas	Overall effect on roadless characteristics	Minor adverse	Minor beneficial	Minor beneficial	Minor beneficial	Minor beneficial	Minor beneficial
Noxious Weeds	Number of high priority/lower priority weed occurrences within 100 feet of routes available for public use	22 / 432	7 / 286	11 / 330	4 / 266	0 / 0	8 / 295
Recreation Resources	Total miles of existing NFTS roads / proposed route additions available for public motorized use	1,341 / 1,699	1,313 / 929	1,313 / 1,191	1,313 / 695	1,313 / 0	1,313 / 995
Soil Resource	Percent of routes available for motorized use on highly erosive soils	11%	3%	7%	2%	0%	4%
Terrestrial Wildlife	Northern Goshawk: Acres of suitable habitat within 30 ft of routes available for motorized use / Percent of total suitable habitat forestwide	4,966 / 1.2%	2,940 / 0.7%	3,438 / 0.8%	2,062 / 0.5%	0 / 0%	3,053 / 0.7%
	Sierra Nevada Bighorn Sheep: Miles of routes available for motorized use within critical habitat / Percent of critical habitat within 1,148 ft of routes	9.3 / 1.5%	0.45 / 0.3%	8.8 / 1.3%	0 / 0.1%	0 / 0%	4.3 / 0.8%

Resource Area	Indicator	Alt 1 ^a	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Terrestrial Wildlife	American Marten: Acres of suitable habitat within 30 ft of routes available for motorized use / Percent of total suitable habitat forestwide	705 / 0.3%	412 / 0.2%	507 / 0.2%	277 / 0.2%	0 / 0%	426 / 0.2%
	Greater Sage Grouse: Acres of suitable habitat within 30 ft of routes available for motorized use / Percent of total suitable habitat forestwide	2,709 / 0.9%	1,586 / 0.5%	2,004 / 0.7%	1,330 / 0.4%	0 / 0%	1,781 / 0.6%
Visual Resources	Form, line, color and texture of routes available for motorized use	Long-term adverse effect	Beneficial effect	Beneficial effect	Beneficial effect	Beneficial effect	Beneficial effect
Water Resources	Miles of routes available for motorized use in riparian conservation areas	15.4 miles	8.03 miles	10.8 miles	5.47 miles	0 miles	8.5 miles
	Number of perennial stream crossings on routes available for motorized use	37	19	25	11	0	21
Motorized Mixed Use	Miles of low standard, high clearance roads designated for motorized mixed use (existing NFTS roads / routes added to the NFTS as roads)	No change to current use.	1,185 / 876	1,185 / 847	1,185 / 660	1,185 / 0	1,185 / 861
	Miles of NFTS passenger car roads designated for motorized mixed use	No change to current use.	33 miles	33 miles	33 miles	33 miles	33 miles
Sustainability of the transportation system	Total annual additional maintenance cost for proposed NFTS additions	N/A	\$875,300	\$1,086,475	\$666,125	\$0	\$941,950
	Total mitigation cost for added facilities	N/A	\$350,720	\$657,550	\$144,500	\$0	\$584,450

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

^bUnless otherwise indicated, 'miles of routes available for motorized use' refers to those unauthorized routes added to the NFTS in the action alternatives, not existing NFTS roads. For the no action alternative, this measure includes all unauthorized routes.

Table of Contents

Chapter 1: Purpose of and Need for Action	1
<hr/>	
1.1 Document Structure	1
1.2 Background	1
1.2.1 Travel Management Planning on the Inyo National Forest	3
1.2.2 Scope of the Analysis	4
1.2.3 Project Location	5
1.3 Purpose and Need	5
1.4 Proposed Action	8
1.5 Principle Laws and Regulations that Influence the Scope of this EIS	8
1.6 Decision to be Made	10
1.7 Public Involvement	11
1.7.1 Issues	12
Chapter 2: The Alternatives	15
<hr/>	
2.1 Introduction	15
2.2 How the Alternatives Were Developed	15
2.2.1 Alternatives Considered in Detail	15
2.3 Descriptions of the Alternatives	16
2.3.1 Alternative 1: No Action	17
2.3.2 Alternative 2: Proposed Action	17
2.3.3 Alternative 3: Maximize Access and Motorized Recreation Opportunities.	19
2.3.4 Alternative 4: Minimize Impacts to Inventoried Roadless Areas, Natural Resources, and Cultural Resources	20
2.3.5 Alternative 5: Cross-County Travel Prohibition Only – No Additions to the Current NFTS	22
2.3.6 Alternative 6: Modified Proposed Action	23
2.3.7 Elements Common to All Action Alternatives	24
2.4 Alternatives Considered but Eliminated from Detailed Analysis	29
2.4.1 Blue Ribbon Coalition Recreation Alternative	29
2.4.2 California Association of 4WD Clubs – recreation alternative.	31
2.4.3 Programmatic Reduction in NFTS and Unauthorized Route Density (The Wilderness Society)	31
2.5 Comparison of Alternatives	34
2.5.1 Summary of Environmental Consequences	35
Chapter 3: Affected Environment and Environmental Consequences	39
<hr/>	
3.1 Introduction	39
3.1.1 Analysis Process	39
3.2 Society, Culture, and the Economy	44
3.2.1 Introduction	44
3.2.2 Economic Effects Analysis	44

3.2.3	American Indian Concerns	59
3.2.4	Lifestyles, Attitudes, Beliefs and Values	62
3.2.5	Environmental Justice	63
3.3	Recreation Resources	64
3.3.1	Introduction	64
3.3.2	Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	64
3.3.3	Affected Environment	65
3.3.4	Environmental Consequences	68
3.3.5	Direct and Indirect Effects of the Alternatives on the Recreation Resources	72
3.3.6	Direct and Indirect Effects Summary by Alternative	87
3.4	Visual Resources	93
3.4.1	Introduction	93
3.4.2	Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	93
3.4.3	Affected Environment	95
3.4.4	Environmental Consequences	97
3.4.5	Summary of Effects Analysis Across All Alternatives	114
3.4.6	Compliance with the Forest Plan and Other Direction	114
3.5	Cultural Resources	116
3.5.1	Introduction	116
3.5.2	Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	116
3.5.3	Affected Environment	118
3.5.4	Environmental Consequences	126
3.5.5	Summary of Effects Analysis for All Alternatives	141
3.5.6	Compliance with the Forest Plan and Other Direction	143
3.6	Soil and Geologic Resources	145
3.6.1	Introduction	145
3.6.2	Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	145
3.6.3	Affected Environment	147
3.6.4	Environmental Consequences	149
3.6.5	Cumulative Effects	162
3.6.6	Summary of Direct and Indirect Effects	166
3.6.7	Compliance with the Forest Plan and Other Direction	166
3.7	Water Resources	168
3.7.1	Introduction	168
3.7.2	Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	168
3.7.3	Affected Environment	173
3.7.4	Environmental Consequences	176
3.7.5	Summary of Effects	202
3.7.6	Compliance with the Forest Plan and Other Direction	202
3.8	Botanical Resources	205
3.8.1	Introduction	205
3.8.2	Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	206
3.8.3	Affected Environment	208
3.8.4	Environmental Consequences	217
3.8.5	Summary of Effects for All Alternatives	244
3.8.6	Compliance with the Forest Plan and Other Direction	244

3.9 Noxious Weeds	245
3.9.1 Introduction	245
3.9.2 Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	245
3.9.3 Affected Environment	246
3.9.4 Environmental Consequences	247
3.9.5 Summary of Effects For All Alternatives	263
3.9.6 Compliance with the Forest Plan and Other Direction	264
3.10 Terrestrial Biota	265
3.10.1 Introduction	265
3.10.2 Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	265
3.10.3 Affected Environment and Environmental Consequences	274
3.10.4 Compliance with the Forest Plan and Other Direction	351
3.11 Aquatic Wildlife	352
3.11.1 Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	352
3.11.2 Affected Environment and Environmental Consequences	353
3.12 Air Quality	400
3.12.1 Introduction	400
3.12.2 Analysis Framework: Statute, Regulation, Forest Plan and Other Direction	400
3.12.3 Affected Environment	401
3.12.4 Environmental Consequences	403
3.12.5 Effects of Mitigation Measures	406
3.12.6 Cumulative Effects	406
3.13 Inventoried Roadless Areas	408
3.13.1 Introduction	408
3.13.2 Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	408
3.13.3 Affected Environment	409
3.13.4 Environmental Consequences	410
3.13.5 Summary of Effects	428
3.13.6 Compliance with Forest Plan Direction	429
3.14 Transportation Facilities	430
3.14.1 Introduction	430
3.14.2 Analysis Framework: Statute, Regulation, Forest Plan, and Other Direction	430
3.14.3 Affected Environment	431
3.14.4 Environmental Consequences	436
3.15 Special Uses	443
3.15.1 Affected Environment	443
3.15.2 Environmental Consequences	443
Chapter 4: Consultation and Coordination	445
4.1 Distribution of the Environmental Impact Statement	445
4.2 List of Preparers	445
Index	447

References **449**

Appendices

Appendix A: Proposed Actions by Alternative	A-1
Appendix B: Riparian Conservation Objectives Analysis	B-1
Appendix C: Cultural Resource Site Condition	C-1
Appendix D: Present and Reasonably Foreseeable Future Actions Inventory	D-1

List of Figures and Tables

Figures:

Figure 1-1: Travel Management Project Focus Area	6
Figure 3-1: Population Growth Compared to the State and the Nation in the Economic Analysis Area (Esmeralda, Inyo, Mineral, and Mono)	47
Figure 3-2: Watersheds on the Inyo National Forest (includes only the watersheds that contain roads)	175

Tables:

Table 2-1: Proposed Seasonal Restrictions on New NFTS Facilities, Alternative 2	18
Table 2-2: Comparison of Actions Proposed Under the October 2007 Proposed Action and Alternative 2 (the DEIS Proposed Action)	18
Table 2-3: Proposed Seasonal Restrictions on New NFTS Facilities, Alternative 3	20
Table 2-4: Changes to the NFTS (roads available for motorized use after the Poleta open area is closed to cross-country travel)	22
Table 2-5: Proposed seasonal restrictions on new NFTS facilities, Alternative 6	24
Table 2-6: Summary of Proposed Mitigation Measures, by Alternative	27
Table 2-7: Summary of Proposed Additions and Changes to the NFTS by Alternative	35
Table 2-8: Summary of Direct and Indirect Effects of the Alternatives on Forest Resources	36
Table 3-1: Summary of Counties by Total Acreage and National Forest Land Acreage	44
Table 3-2: Comparison of National Forest Acreage by Wilderness Designation with a Summary of Total Mileage of Routes within each County	45
Table 3-3: Population by Age and Gender for the Economic Analysis Area	47
Table 3-4: Activity Participation on the Inyo National Forest	48
Table 3-5: Number of Visits by Activity	50
Table 3-6: Expenditures (\$ per Visit) by Activity	50
Table 3-7: Estimated Use Levels of Unauthorized Routes	53
Table 3-8: Approximate Miles of Roads and Motorized Trails within the Economic Analysis Area	53
Table 3-9: Employment and Labor Income Response Coefficients by Activity Type	56
Table 3-10: Employment and Labor Income Effects by Activity Type	57
Table 3-11: Percent of Total Employment and Labor Income Effects by Activity Type	58
Table 3-12: Employment and Labor Income Effects	59
Table 3-13: Percent of Total Area Employment and Total Area Labor Income Effects	59
Table 3-14: Miles of Existing Roads and Unauthorized Routes	66
Table 3-15: Participation Rates for All Recreation Activities on the INF (2005 National Visitor Use Monitoring Project)	68
Table 3-16: Total Miles of Routes Available in the Proposed Action and the Alternatives	72

Table 3-17: Additions to Existing NFTS in the Proposed Action and the Alternatives	73
Table 3-18: Total Miles of Routes Available in IRAs in the Proposed Action and the Alternatives	74
Table 3-19: Changes to Existing NFTS in IRAs in the Proposed Action and the Alternatives	74
Table 3-20: Effect of the Proposed Action and Alternatives on Loop Tours	76
Table 3-21: Total Miles of County and Highway roads, System Roads, Motorized Trails, and Unauthorized Routes Within CRAs by Alternative.	78
Table 3-22: Total area more than ¼ mile from all motorized routes (County and State roads, existing Forest System roads, and unauthorized routes proposed in each alternative). Area measured does not include designated Wilderness	79
Table 3-23: Total Miles of County and State Roads, System Roads, and Proposed NFTS Routes Within ¼ Mile of Developed Recreation Sites by Alternative	80
Table 3-24: Miles of System Road, Motorized Trail, and Proposed Unauthorized Route Additions within the WUI Defense Zone	80
Table 3-25: Area under a permanent prohibition on cross-country travel	81
Table 3-26: Approximate Total Miles of Road and Motorized Trail Available by Land Management Agency and Alternative	83
Table 3-27: Definitions of Primitive and Semi-primitive ROS class	85
Table 3-28: Total Miles of Unauthorized Routes Available for Motorized Use by Alternative	86
Table 3-29: Highway Corridors on the INF with Visual Management Prescriptions	94
Table 3-30: Miles of Routes and Measurement Indicator by Alternative	103
Table 3-31: Viewsheds Not Considered in this Analysis	104
Table 3-32: Number of Existing Unauthorized Routes Not Available for Motorized Use within Off Road Travel Concern Areas (ORTCAs)	106
Table 3-33: Summary of Effects on Visual Resources	114
Table 3-34: Status of Cultural Resources Survey within APE (as of June 2008)	121
Table 3-35: Examples of Site Disturbances Documented within Project APE	122
Table 3-36: Quantity and Assessment of Historic Properties Identified within APE (as of June 2008)	123
Table 3-37: National Register of Historic Places Status of Cultural Resource Sites within APE (as of June 2008)	123
Table 3-38: Severity of Effects	124
Table 3-39: Cultural Resource Effect Severity (as of June 2008)	125
Table 3-40: Number of Historic Properties and Risk Severity According to Focus Area (as of June 2008)	126
Table 3-41: Mitigations Prescribed by Other Resource Specialists with the Potential to Affect Cultural Resources	131
Table 3-42: At-Risk Sites within APE Tabulated According to Indirect/Direct Effects (as of June 2008)	132
Table 3-43: Identified and Potential Direct/Indirect Effects Associated with Alternative 2 (as of June 2008)	134
Table 3-44: Effects and Mitigations for Historic Properties Associated with Alternative 2 (as of June 2008)	135
Table 3-45: Identified and Potential Direct/Indirect Effects Associated with Alternative 3 (as of June 2008)	136
Table 3-46: Effects and Mitigations for Historic Properties Associated with Alternative 3 (as of June 2008)	137
Table 3-47: Identified and Potential Direct/Indirect Effects Associated with Alternative 4 (as of June 2008)	138
Table 3-48: Effects and Mitigations for Historic Properties Associated within	

Alternative 4 (as of June 2008)	138
Table 3-49: Identified and Potential Direct/Indirect Effects Associated with Alternative 6 (as of June 2008)	140
Table 3-50: Effects and Mitigations for Historic Properties Associated with Alternative 6 (as of June 2008)	141
Table 3-51: Summary of Effects and Mitigations for all Alternatives (as of June 2008)	143
Table 3-52: Soil resource measurement indicators	153
Table 3-53: Miles of unauthorized routes available for motorized use by Maximum Erosion Hazard Rating and Alternative (Indicator 3)	159
Table 3-54: Unauthorized Routes with Known Erosion Problems	160
Table 3-55: Total Area Dedicated to Roads and Motorized Trail within the Analysis Area	164
Table 3-56: Summary of Short- and Long-term Effects by Alternative	167
Table 3-57: Hydrologic characteristics of the Water Resources Analysis Area	173
Table 3-58: Summary of Data Sources Used in the Hydrology Analysis	178
Table 3-59: Miles of Unauthorized Routes No Longer Available for Motorized Use (as miles and percentage of all existing 1,699 miles of unauthorized routes)	183
Table 3-60: Total Miles of Currently Unauthorized Routes that Would Be Available for Public Use Forest-wide within 100 feet of Perennial Stream Channels	184
Table 3-61: Routes Contributing Excess Sediment to Creeks, Outside of Stream Crossings and Meadows, and Their Management under Each Alternative	185
Table 3-62: Number of Perennial Stream Crossings on Routes Available for Public Use in Each Alternative	186
Table 3-63: Currently unauthorized route density in RCAs (Alternative 1) for watersheds within the analysis area	188
Table 3-64: 6th Field Watersheds with Greater than 2.5 mi per Square Mile Route Density in Perennial RCAs	188
Table 3-65: Average Route Density in All Perennial RCAs by Alternative	189
Table 3-66: Total Miles of Routes that Would Be Available for Public Use within 100 feet of Lakes	189
Table 3-67: Total Miles of Currently Unauthorized Routes that Would Be Available for Public Use within 100 feet of Springs	189
Table 3-68: Total Miles of Routes that Would Be Available for Public Use in Each CAR within 100 feet of Ephemeral and Intermittent Stream Channels	190
Table 3-69: Miles of Routes through Wet Meadows and Alkali Flats per Alternative	190
Table 3-70: Routes through Meadows and Alkali Flats with Known Impacts to Hydrologic Function	193
Table 3-71: Results of the ERA Analysis	197
Table 3-72: Watersheds at Moderate to High Risk of Impaired Water Quality Based on Route Density	202
Table 3-73: Summary of Direct and Indirect Effects by Alternative	204
Table 3-74: Species by Guild	214
Table 3-75: Species Considered in Analysis, Known Occurrences, Guilds	215
Table 3-76: Acres of Habitat within Analysis Area, Potentially Affected by Cross-country Travel, Alt. 1	224
Table 3-77: Number of Fens and Mapped Rare Plant Occurrences within 100 Feet of Routes Available for Motorized Use and within ORTCAs, Alternative 1	225
Table 3-78: Acres of Habitat within 100 Feet of Routes Available for Motorized Use, Alternative 1	225
Table 3-79: Number of Fens and Mapped Rare Plant Occurrences within 100 Feet	

of Routes Available for Motorized Use and within ORTCAs, Alternative 2	226
Table 3-80: Acres of Habitat within 100 Feet of Routes Available for Motorized Use, Alternative 2	227
Table 3-81: Number of Fens and Mapped Rare Plant Occurrences within 100 Feet of Routes Available for Motorized Use and within ORTCAs, Alternative 3	228
Table 3-82: Acres of Habitat within 100 Feet of Routes Available for Motorized Use, Alternative 3	228
Table 3-83: Number of Fens and Mapped Rare Plant Occurrences within 100 Feet of Routes Available for Motorized Use and within ORTCAs, Alternative 4	230
Table 3-84: Acres of Habitat within 100 Feet of Routes Available for Motorized Use, Alternative 4	230
Table 3-85: Number of Fens and Mapped Rare Plant Occurrences within 100 Feet of Routes Available for Motorized Use and within ORTCAs, Alternative 5	231
Table 3-86: Number of Fens and Mapped Rare Plant Occurrences within 100 Feet of Routes Available for Motorized Use and within ORTCAs, Alternative 6	232
Table 3-87: Acres of Habitat within 100 Feet of Routes Available for Motorized Use, Alternative 6	233
Table 3-88: Number of Routes Available for Motorized Use within 100 Feet of Sensitive and Watch List Plant Occurrences and Fens, for Existing System Roads and for Each of the Alternatives (Routes Added to the System Combined with Existing System Roads)	238
Table 3-89: Potential Habitat, by Guild, within 100 Feet of Existing System Roads, and within 100 Feet of Existing System Roads combined with Routes Added to the System for Each of the Alternatives	238
Table 3-90: Number of Rare Plant and Fen Occurrences within 100 Feet of System Roads, and Number within 100 Feet of System Routes for Each Alternative (Total of Routes Added and Existing System Roads)	238
Table 3-91: Occupied Habitat of Sensitive Species Occurrences On and Adjacent to Forest Lands (For Selected Species), Occupied Habitat within 100 Feet of System Roads, Occupied Habitat within 100 Feet of System Routes for Each Alternative (Added Routes and Existing System Roads), and Percent of the Occupied Habitat Affected by Each Alternative (Routes Added to the System and Existing System Roads)	241
Table 3-92: Comparison of Alternatives by Indicator	244
Table 3-93: Known Weed Species in the Analysis Area	247
Table 3-94: Risk Ratings, Number of Unauthorized Routes, Alternative 1	254
Table 3-95: Risk ratings, Number of Designated Routes, Alternative 2	254
Table 3-96: Risk Ratings, Number of Designated Routes, Alternative 3	255
Table 3-97: Risk Ratings, Number of Designated Routes, Alternative 4	257
Table 3-98: Risk Ratings, Number of Designated Routes, Alternative 6	258
Table 3-99: High Priority/Lower Priority Weed Occurrences Adjacent to Unauthorized Designated Routes and in ORTCAs	261
Table 3-100: Number of High, Medium, and Low Risk Routes, Cumulatively, by Alternative	262
Table 3-101: Number of Known High Risk Routes Cumulatively by Alternative	262
Table 3-102: Summary of Effects of the Alternatives by Indicator Measure	264
Table 3-103: Threatened, Endangered, and Sensitive Terrestrial Species Potentially Occurring in the Analysis Area	268
Table 3-104: Terrestrial Management Indicator Species Potentially Occurring in the Planning Area	268
Table 3-105: Wildlife Groups and Species Represented within Groups	269
Table 3-106: Road- and Trail-Associated Factors with Documented Effects on Habitat	

or Populations of Wildlife Species	270
Table 3-107: Miles of Existing Unauthorized Routes in Each Estimated Use Levels	277
Table 3-108: Acres of National Forest System Land Not Protected from Cross-Country Travel by a Permanent Forest Order	278
Table 3-109: Acres of Vegetation Types Consumed by Wildfire Since 1960	280
Table 3-110: Northern Goshawk Habitat Potentially Being Impacted by Existing Unauthorized Routes	283
Table 3-111: Miles of Route Available for Public Motorized Use in Suitable Northern Goshawk Habitat	284
Table 3-112: Miles of Routes within Northern Goshawk Protected Activity Centers and Number of Nests within 1/4-Mile of Routes Available for Public Use	284
Table 3-113: Mile of Routes Available for Motorized Use in PACs under Each Alternative by Use Level	284
Table 3-114: Acres of Suitable Northern Goshawk Habitat within Three Buffer Distances from Routes Available for Motorized Use	285
Table 3-115: Total Miles of Routes (Roads and Trails) in Suitable Northern Goshawk Habitat Available for Public Motorized Use (Including Existing NFTS Roads and Routes Added Under Each Alternative)	287
Table 3-116: Total Miles of routes within Northern Goshawk Protected Activity Centers and Number of Nests within 1/4-Mile of all Routes Available for Public Motorized Use (Including Existing System Roads and Routes Added Under Each Alternative)	287
Table 3-117: Acres of Suitable Northern Goshawk Habitat within Three Buffer Distances from All Routes (Existing System and Added Routes) Available for Public Motorized Use under Each Alternative	287
Table 3-118: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Northern Goshawk Habitat	288
Table 3-119: American Marten Habitat Potentially Being Impacted by Existing Unauthorized Routes	291
Table 3-120: Acres of Suitable American Marten Habitat within Three Buffer Distances from Routes Available for Motorized Use	291
Table 3-121: Acres of Suitable American Marten Habitat within Three Buffer Distances from All Routes Available for Motorized Use (Existing System plus Proposed Additions) in Each Alternative	293
Table 3-122: Summary of Past, Present, and Reasonably Foreseeable Disturbances within American Marten Habitat	293
Table 3-123: Northern Flying Squirrel Habitat Potentially Being Impacted by Existing Unauthorized Routes	295
Table 3-124: Acres of Suitable Northern Flying Squirrel Habitat within Three Buffer Distances from Routes Available for Motorized Use	296
Table 3-125: Sierra Nevada Red Fox Habitat Potentially Being Impacted by Existing Unauthorized Routes	298
Table 3-126: Miles of Route Available for Motorized Use in Suitable Sierra Nevada Red Fox Habitat	298
Table 3-127: Miles of Route in Sierra Nevada Red Fox Habitat Available for Motorized Use under Each Alternative by Use Level	299
Table 3-128: Acres of Suitable Sierra Nevada Red Fox Habitat within Three Buffer Distances from Routes Available for Motorized Use	299
Table 3-129: Total Miles of Routes Available for Vehicle Travel (Existing System Plus Proposed Additions) in Suitable Sierra Nevada Red Fox Habitat	300
Table 3-130: Acres of Suitable Sierra Nevada Red Fox Habitat within Three	

Buffer Distances from All Routes Available for Motorized Use (Existing System Plus Proposed Additions) under Each Alternative	301
Table 3-131: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Sierra Nevada Red Fox Habitat	301
Table 3-132: Acres of Designated Critical Habitat Potentially Being Impacted by Existing Unauthorized Routes	304
Table 3-133: Miles of Route Available for Motorized Use within Designated Critical Habitat and Acres of Critical Habitat within 1,148 Feet of These Routes	305
Table 3-134: Acres of Suitable Sierra Nevada Bighorn Sheep Designated Critical Habitat within Two Buffer Distances from Routes Available for Motorized Use	306
Table 3-135: Total Miles of Road (Existing System plus Proposed Additions) within Designated Critical Habitat and Acres of Critical Habitat within 1,148 Feet of Those Roads	308
Table 3-136: Acres of Suitable Sierra Nevada Bighorn Sheep Designated Critical Habitat within Two Buffer Distances from All Routes (Existing System plus Proposed Additions) Available for Motor Vehicle Use in Each Alternative	308
Table 3-137: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Sierra Nevada Bighorn Sheep Habitat	309
Table 3-138: Acres of Mule Deer Winter Ranger and Key Areas within 656 Feet of Routes Available for Motorized Use	313
Table 3-139: Acres of Mule Deer Winter Range and Key Areas within 656 Feet of All Roads (Existing System plus Proposed Additions) Open to Motor Vehicle Use	315
Table 3-140: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Mule Deer Winter Range	315
Table 3-141: Miles of Route Available for Motorized Use within ¼-mile of a Bald Eagle Nest	318
Table 3-142: Cumulative Miles of Open Road within ¼-mile of Bald Eagle Nests	320
Table 3-143: Acres of Willow Flycatcher Habitat Potentially Being Impacted by Existing Unauthorized Routes	322
Table 3-144: Miles of Route Available for Motorized Use within Willow Flycatcher Habitat	322
Table 3-145: Acres of Suitable Willow Flycatcher Habitat within Two Buffer Distances from Routes Available for Motor Vehicle Use	323
Table 3-146: Miles of Route Available for Motor Vehicle Use (Existing System plus Additions) within Willow Flycatcher Habitat	324
Table 3-147: Acres of Suitable Willow Flycatcher Habitat within Two Buffer Distances from All Roads Open to Motor Vehicle Use	324
Table 3-148: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Willow Flycatcher Habitat	325
Table 3-149: Acres of Yellow Warbler Habitat Potentially Being Impacted by Existing Unauthorized Routes	326
Table 3-150: Miles of Route Available for Motorized Use within Yellow Warbler Habitat and Acres of Habitat Encumbered by These Routes	326
Table 3-151: Acres of Suitable Yellow Warbler Habitat within Two Buffer Distances from Routes Available for Motorized Use	326
Table 3-152: Total Miles of Routes Available for Motor Vehicle Use within Yellow Warbler Habitat and Acres of Habitat Encumbered by These Routes	328

Table 3-153: Acres of Suitable Yellow Warbler Habitat within Two Buffer Distances of All Roads Available for Motor Vehicle Use (Existing System plus Additions)	328
Table 3-154: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Yellow Warbler Habitat	329
Table 3-155: Acres of Panamint Alligator Lizard Habitat Potentially Being Impacted by Existing Unauthorized Routes	331
Table 3-156: Miles of Route Available for Motorized Use within Panamint Alligator Lizard Habitat	331
Table 3-157: Acres of Suitable Panamint Alligator Lizard Habitat within Two Buffer Distances from Routes Available for Motorized Use	331
Table 3-158: Total Miles of Routes Available for Motor Vehicle Use within Panamint Alligator Lizard Habitat and Total Road Density	332
Table 3-159: Acres of Suitable Panamint Alligator Lizard Habitat within Two Buffer Distances from All Routes Available for Motor Vehicle Use	333
Table 3-160: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Panamint Alligator Lizard Habitat	333
Table 3-161: Current Snags per Acre by Size Class ¹ and Decay Class ² by Regional Forest Type for the 10 Sierra Nevada Forests	334
Table 3-162: Acres of Snag-Dependent Species Habitat within 200 Feet of Routes Available for Motorized Use	336
Table 3-163: Acres of Hairy Woodpecker and Pallid Bat Habitat within 200 Feet of Developed Recreation Sites	338
Table 3-164: Acres of Snag-Dependent Species Habitat within 200 Feet of All Roads Open for Motor Vehicle Use	338
Table 3-165: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Snag-Dependent Species Habitat	338
Table 3-166: Acres of Sage-Grouse Habitat Potentially Being Impacted by Existing Unauthorized Routes	341
Table 3-167: Miles of Route Available for Motorized Use in Sage-Grouse Habitat Displayed by Use Level	342
Table 3-168: Acres of Suitable Greater Sage-Grouse Habitat within 164 Feet of Routes Available for Motorized Use	342
Table 3-169: Acres of Suitable Greater Sage-Grouse Habitat within Two Buffer Distances from Routes Available for Motorized Use	343
Table 3-170: Total Miles of All Routes Available for Motor Vehicle Use (Existing System plus Additions) in Sage-Grouse Habitat	344
Table 3-171: Acres of Suitable Greater Sage-Grouse Habitat within 164 Feet of All Routes Available for Motor Vehicle Use (Existing System plus Proposed Additions)	345
Table 3-172: Acres of Suitable Greater Sage-Grouse Habitat within Two Buffer Distances from All Routes Available for Motor Vehicle Use (Existing System plus Proposed Additions)	345
Table 3-173: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Sage-Grouse Habitat	346
Table 3-174: Acres of Early and Mid-Seral Coniferous Forest Encumbered by and within 30 Feet of Routes Available for Motorized Use	348
Table 3-175: Miles of All Routes (Existing System Plus Proposed Additions) Available for Motor Vehicle Use, Acres of Early and Mid-Seral Coniferous Forest Encumbered by and within 30 Feet of These Routes	349
Table 3-176: Summary of Past, Present, and Reasonably Foreseeable Disturbances within Early- and Mid-Seral Coniferous Forest Habitat	350

Table 3-177: Special Status Aquatic Species within the Planning Area	354
Table 3-178: Effects of Alternatives on Mountain Yellow-legged Frog	362
Table 3-179: Summary of Direct and Indirect Effects for Owens Tui Chub	365
Table 3-180: Summary of effects to hydrologically sensitive areas within the analysis area	373
Table 3-181: Density of Routes (Unauthorized, System, and County) in HUC 6 Watersheds for Alternative 1 (Existing Condition)	374
Table 3-182: Existing Conditions and Environmental Consequences of Alternative 1 (No Action) on Aquatic Habitat for MIS	376
Table 3-183: Existing Condition of Unauthorized Route Stream Crossings with Identified Impacts	380
Table 3-184: Route Density within HUC 6 Watersheds for Alternative 2	381
Table 3-185: Summary of Effects of Alternative 2 on Aquatic Habitat for MIS, by Focus Area (Stream Crossings are Listed in Table Below)	382
Table 3-186: Summary of Routes with Stream Crossings by Focus Area for Alternative 2	384
Table 3-187: Route Density within HUC 6 Watersheds for Alternative 3	385
Table 3-188: Route Summary of Effects of Alternative 3 on Aquatic Habitat, by Focus Area	385
Table 3-189: Route Specific Impacts at Stream Crossings for Alternative 3	387
Table 3-190: Route Density within HUC 6 Watersheds for Alternative 4	388
Table 3-191: Effects of Alternative 4 on Riparian Habitat, by Focus Area	389
Table 3-192: Summary of Route Crossings by Focus Area for Alternative 4	391
Table 3-193: Summary of Effects of Alternative 5 on Aquatic Habitat for MIS, by Focus Area	391
Table 3-194: Route Density within HUC 6 Watersheds for Alternative 6	392
Table 3-195: Summary of Effects of Alternative 6 on Aquatic Habitat by Focus Area	393
Table 3-196: Summary of Stream Crossings by Focus Area for Alternative 6	394
Table 3-197: Summary of Current and Foreseeable Future Action Relevant to Cumulative Effects Analysis for Aquatic Systems	397
Table 3-198: Summary of Effects on Aquatic Resources for All Alternatives	399
Table 3-199: Miles of Routes Available for Motorized Use within PM10 Non-Attainment Areas	405
Table 3-200: Miles of Routes Available for Motorized Use within 1 Mile of Class 1 Airsheds (Wilderness and National Parks/Monuments)	406
Table 3-201: Unauthorized Routes Per Alternative in the Monache Area	406
Table 3-202: Roadless Characteristics and Descriptions	411
Table 3-203: Unauthorized and NFTS Routes in Inventoried Roadless Areas by Alternative	414
Table 3-204: Unauthorized and NFTS Routes in Citizen Inventoried Roadless Areas by Alternative	415
Table 3-205: Direct and Indirect Effects of Project Activities on Roadless Area Characteristics of IRAs (please see the resource sections in Chapter 3 for more information about effects of the alternatives on natural and cultural resources)	416
Table 3-206: Direct and Indirect Effects of Project Activities on Roadless Characteristics of CIRAs (please see the resource sections in Chapter 3 for more information about effects of the alternatives on natural and cultural resources)	422
Table 3-207: Summary of Direct and Indirect Effects on Roadless Characteristics (IRAs)	429

Table 3-208: Maintenance Cost Estimates for Existing NFTS Roads on the INF	433
Table 3-209: Passenger Car Roads Proposed for Motorized Mixed Use	436
Table 3-210: Proposed Mitigations by Alternative	440
Table 3-211: Unauthorized Routes Added to the NFTS and Additional Maintenance Costs	442
Table 3-212: Maintenance and Implementation Cumulative Economic Effects	442

Chapter 1: Purpose of and Need for Action

1.1 Document Structure

The Forest Service has prepared this Environmental Impact Statement in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This Environmental Impact Statement discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four chapters:

- **Chapter 1. Purpose and Need for Action:** This chapter briefly describes the proposed action, the need for that action, and other purposes to be achieved by the proposal. This section also details how the Forest Service informed the public of the proposed action and how the public responded.
- **Chapter 2. Alternatives, including the Proposed Action:** This chapter provides a detailed description of the agency's proposed action, as well as alternative actions that were developed in response to comments raised by the public during scoping. The end of the chapter includes a summary table comparing the environmental impacts of the proposed action and alternatives.
- **Chapter 3. Affected Environment and Environmental Consequences:** This chapter describes the environmental impacts of the proposed action and alternatives.
- **Chapter 4. Consultation and Coordination:** This chapter provides a list of preparers and agencies consulted during the development of the environmental impact statement.
- **Appendices:** The appendices provide detailed information to support the analyses presented in the environmental impact statement.

Additional documentation may be found in the project planning record located at Inyo National Forest Supervisors Office, Bishop, CA.

1.2 Background

Over the past few decades, the availability and capability of motor vehicles, particularly off-highway vehicles (OHVs) and sport utility vehicles (SUVs), has increased tremendously. Nationally, the number of OHV recreationists has climbed sevenfold in the past 30 years, from approximately 5 million in 1972 to 36 million in 2000. California is experiencing the highest level of OHV use of any state in the nation. There were 786,914 ATVs and OHV motorcycles registered in 2004, up 330% since 1980. Annual sales of ATVs and OHV motorcycles in California were the highest in the U.S. for the last 5 years. Similarly, sales of four-wheel drive vehicles in California increased by 1500% to 3,046,866 from 1989 to 2002.

Unmanaged motor vehicle use, particularly OHV use, has resulted in unplanned roads and trails, erosion, watershed and habitat degradation, and impacts to cultural resource sites. Compaction and erosion are the primary effects of motor vehicle use on soils. Riparian areas and aquatic dependent species are particularly vulnerable to damage from motor vehicle use. Unmanaged recreation,

including impacts from OHVs, is one of “Four Key Threats Facing the Nation’s Forests and Grasslands.” (USDA Forest Service, June 2004).

On August 11, 2003, the Pacific Southwest Region of the Forest Service entered into a Memorandum of Intent (MOI) with the California Off-Highway Motor Vehicle Recreation Commission, and the Off-Highway Motor Vehicle Recreation Division of the California Department of Parks and Recreation. That MOI set in motion a region-wide effort to “Inventory and Designate OHV roads, trails, and any specifically defined open areas for motor vehicles on maps of the 19 National Forests in California by 2007.”

On November 9, 2005, the Forest Service published final travel management regulations in the Federal Register (FR Vol. 70, No. 216-Nov. 9, 2005, pp 68264-68291). 36 CFR 212, Subpart B of the final Travel Management Rule requires designation of those roads, trails, and areas that are open to motor vehicle use on National Forests. Only roads and trails that are part of a National Forest Transportation System (NFTS) may be designated for motorized use. Designations are made by class of vehicle and, if appropriate, by time of year. Part 261 – Prohibitions, Subpart A (36 CFR 261.13) of the final rule, prohibits the use of motor vehicles off designated roads, trails, and areas, as well as use of motor vehicles on roads and trails that is not consistent with the designations.

On NFS lands managed as open to cross-country motor vehicle use, unrestricted repetitive motor vehicle travel has resulted in unplanned, unauthorized, routes (roads and trails). These routes were developed without agency authorization, environmental analysis, or public involvement and do not have the same status as roads and trails included in the NFTS. Nevertheless, some unauthorized routes are well-sited, provide excellent opportunities for outdoor recreation by motorized and non-motorized users and would enhance the NFTS. Other unauthorized routes are poorly located and cause unacceptable environmental impacts. Only NFTS roads, NFTS trails, and discrete, specifically delineated areas can be designated for motor vehicle use. In order for an unauthorized route to be designated, it must first be added to the NFTS. In order for areas to be designated, a discrete, specifically delineated area that is smaller, and in most cases much smaller, than a Ranger District must be identified.

Between 2003 and 2005, the INF completed an extensive inventory of unauthorized routes on NFS lands and identified 1,699 miles of unauthorized routes in addition to 1,341 miles of existing NFTS roads. The majority of the 1,699 miles of unauthorized routes on the Forest are short spurs and lightly-used vehicle tracks. Over 60 percent of the inventoried unauthorized routes are spurs less than ¼ mile long; approximately 7 percent of the routes are more than a mile in length.

The INF used an interdisciplinary process to assess the need for change to the motorized transportation system. This process included review of the INF Land and Resource Management Plan, internal and external discussions, including extensive public collaboration and input to identify the need for changes to the existing INF transportation system.

Based on this review, the scope of analysis was narrowed as described in the Purpose and Need section of this chapter. Existing NFTS roads currently open to motor vehicle travel and the Poleta open area will remain designated for such use except as described below under the Proposed Action. In accordance with the 2005 Travel Management Rule (36 CFR Part 212, Subpart B), the proposed action and alternatives propose needed changes to the Inyo National Forest transportation system such as the addition of unauthorized routes to the NFTS as roads or motorized trails and vehicle class restrictions. .

In accordance with Subpart B of the Travel Management Rule, following a decision on this proposal, the INF will publish a Motor Vehicle Use Map (MVUM) identifying all INF NFTS roads, trails, and areas that are designated for motor vehicle use. The MVUM shall specify the classes of vehicles and, if appropriate, the times of year for which use is designated. Upon publication of the MVUM, it is prohibited to possess or operate a motor vehicle on NFS lands other than in accordance with those designations. These maps shall be made available to the public at the headquarters of corresponding administrative units and Ranger Districts of the National Forest System. Unauthorized routes not included in this proposal are not precluded from future consideration for either addition to the NFTS and inclusion on an MVUM, or for removal from the landscape and restoration to the natural condition. Future decisions associated with changes to the NFTS and the MVUM may trigger the need for additional environmental analysis, public involvement, and documentation.

1.2.1 Travel Management Planning on the Inyo National Forest

Management of the transportation system on the Inyo National Forest is a dynamic process. During the past 30-40 years, the Forest has added roads to the NFTS, decommissioned roads that were causing resource impacts or that were no longer needed for the use and management of the Forest, and identified and mitigated road-related resource concerns. These actions have been accomplished as part of forest plan development and through project-level planning and decisions.

The Inyo National Forest Land and Resource Management Plan (LRMP or Forest Plan), completed in 1988, includes direction to designate off-highway vehicle (OHV) routes by updating the 1977 Interagency Motor Vehicle Use Plan (1977 Plan), evaluate routes during that update on the basis of affected resources, limit vehicle access to designated routes, and to close routes with irresolvable resource impacts. Several separate planning efforts were initiated in the late 1980s to update the 1977 Plan to be consistent with direction in the 1988 LRMP. These include:

- 1989 Mono Basin Scenic Area Plan. The approved Management Plan for the Mono Basin Scenic Area provides programmatic direction for motor vehicle use within the Scenic Boundary. In addition, the plan designated routes for motor vehicle use as shown on the OSV / OHV Use / Facilities map for the selected alternative.
- 1991 High Desert OHV Plan. The selected alternative identifies and provides for maintenance and use of designated routes within parts of the White Mountain Ranger District and the Bureau of Land Management (BLM) Bishop Resource Area.
- Interagency Motor Vehicle Use Plan Revision (not completed). The Interagency Motor Vehicle Use Plan covered Inyo National Forest lands outside of the Mono Basin Scenic Area and the High Desert Plan study area. The revision was initiated in 1988 with an inventory of existing routes, followed by publication of the Draft Environmental Impact Statement for the Interagency Motor Vehicle Use Plan Revision in 1993. The Plan Revision was never completed.

The current Travel Management Project would implement direction in the 1988 LRMP to designate motor vehicle routes by updating the 1977 Motor Vehicle Use Plan. To do so, the alternatives consider the inventoried unauthorized routes on the Forest for possible inclusion in the NFTS. Existing NFTS facilities (i.e., 1,341 miles of roads and the Poleta open area) which were

added to the NFTS through previous management decisions are not subject to further environmental analysis at this time provided use or access to these facilities is not changed (36 CFR 212.50(b)).

1.2.2 Scope of the Analysis

This proposal is not intended to revisit previous decisions that resulted in the current NFTS. This proposal is narrowly focused on the designation of roads, trails and areas for motor vehicle use in accordance with 36 CFR Part 212, Subpart B, through publication of an MVUM. Only roads and trails that are part of a National Forest Transportation System (NFTS) may be designated for motorized use.

Consistent with Forest Service policy for travel analysis, the INF has identified issues, assessed benefits and risks, and, through the alternatives analyzed in this EIS, described and documented opportunities to address those risks. Only those actions within the capability of the Forest have been brought forward by the responsible official and proposed in accordance with the purpose and need for action.

The following list summarizes the key elements considered when developing the scope of the action:

1. Previous decisions on the NFTS do not need to be revisited to implement the Travel Management Rule (36 CFR 212.50(b)). Allowing continued motor vehicle use of the facilities in the NFTS in accordance with existing laws and regulations does not require NEPA.
2. User-created roads, trails, and areas are not NFTS facilities. They are unauthorized. Proposals to add these to the NFTS require a NEPA analysis and decision.
3. The unauthorized routes not included in the Proposed Action or action alternatives are not precluded from future consideration for either addition to the NFTS, conversion to other uses, or restoration to a natural condition.
4. Any activity associated with contract, permit, lease or other written authorization is exempt from designation under the Travel Management Rule (36 CFR 212.51 (a) (8)) and is not part of the proposal (e.g., fuelwood permits, mining activity, etc.). Such actions are subject to separate project-level NEPA analysis.
5. For travel management, the federal action requiring NEPA analysis and decision is any change to the current NFTS (e.g., prohibiting cross-country travel, adding or removing facilities, or changing vehicle class or season of use). ‘Designation’ is an administrative act which does not require NEPA analysis and decision. Designation technically occurs with printing of the Motor Vehicle Use Map (MVUM), and NEPA is not required to print a map.

The infrastructure of a national forest will always have room for improvement and the INF welcomes suggestions for improving the transportation system. Such suggestions are considered within the context of the overall mission of the INF and will be considered as availability of staff and funding allow. Many suggestions for improving the NFTS through NFS road decommissioning and closures were received during public scoping. These ideas and suggestions have been captured by the INF and may be considered in future programs of work.

1.2.3 Project Location

The project area includes all Forest lands outside of designated Wilderness, an area covering approximately 1.3 million acres. For the purposes of this analysis, the project area has been divided into eleven focus areas. These focus areas are:

Mammoth and Mono Lake Ranger Districts:

Mono Lake/June Lake
Mammoth West
Mammoth East
Glass Mountains
Pizona

White Mountain and Mt. Whitney Ranger Districts:

White Mountains
Casa Diablo
Bishop/Coyote
Inyo Mountains
South Sierra Escarpment
Monache

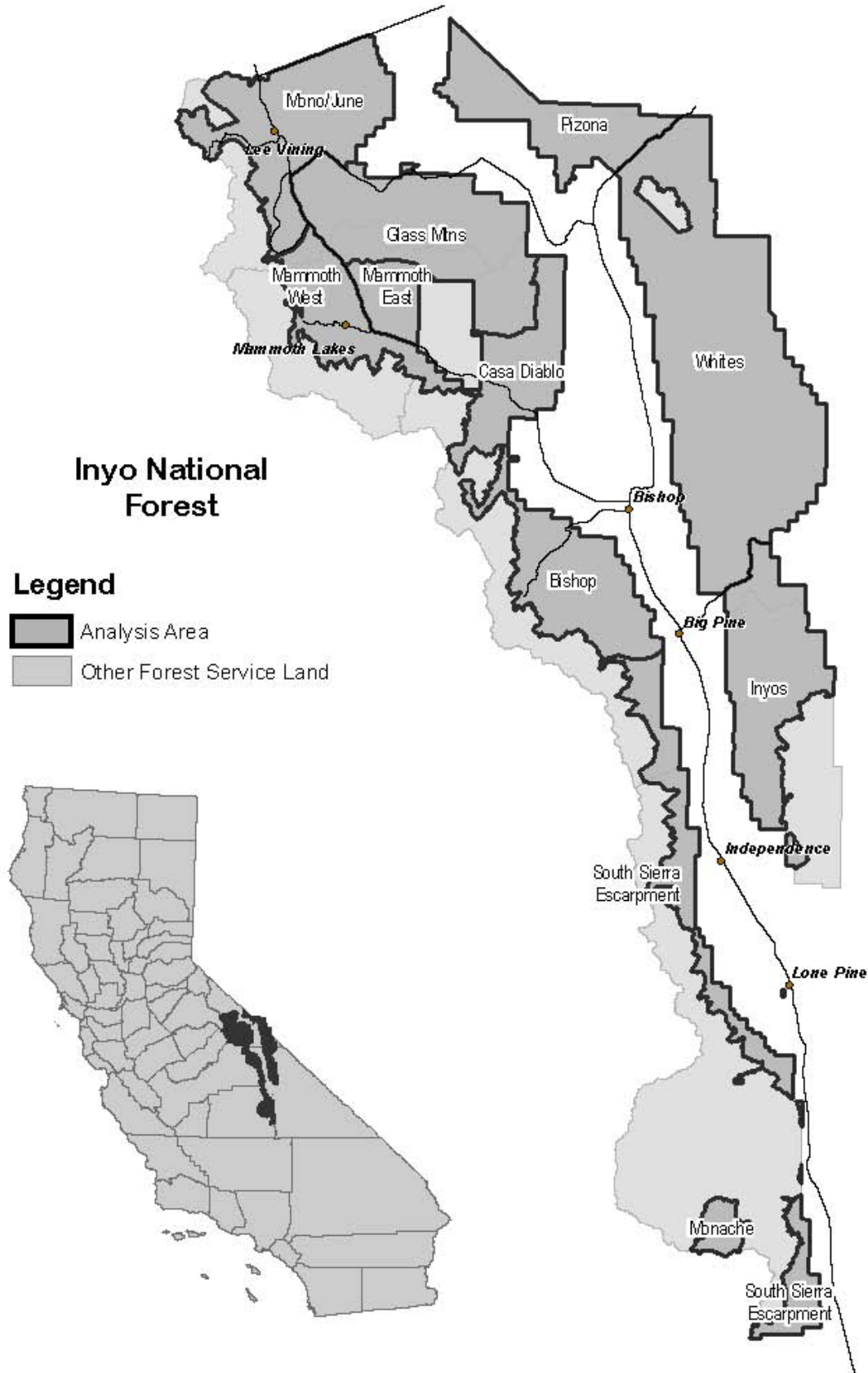
1.3 Purpose and Need

The underlying need for taking action at this time is:

1. **There is a need for regulation of unmanaged motor vehicle travel by the public.** The proliferation of unplanned, unauthorized, non-sustainable roads, trails and areas adversely impacts the environment. The 2005 Travel Management Rule, Subpart B, is intended to prevent resource damage caused by unmanaged motorized travel by the public. Subpart B provides policy for the designation of National Forest Transportation System (NFTS) roads, trails, and areas, and the prohibition of cross-country travel. In accordance with national direction, implementation of Subpart B of the Travel Management Rule for the Inyo National Forest is scheduled for completion in 2009. In addition, there is a need to:
 - a) Clarify management of the 1,100 acres of the NFTS Poleta open area on NFS land to eliminate unauthorized cross country travel and associated resource damage outside the open area boundaries.

2. **There is a need for limited changes to the INF transportation system to:**
 - a) Provide motor vehicle access to existing dispersed recreation opportunities (camping, hunting, fishing, hiking, horseback riding, etc.). There is a need to maintain motor vehicle access to dispersed recreation activities that historically have been accessed by motor vehicles. A substantial portion of known dispersed recreation activities (camping, fishing, hiking, horseback riding, hunting, etc.) are not located directly adjacent to an existing NFTS road or motorized trail. Some dispersed recreation activities currently depend on foot or horseback access, while others depend on motor vehicle access, including use of existing unauthorized routes. If unauthorized routes are not added to the NFTS and designated, motor vehicle use on these routes would be prohibited (36 CFR 261.13) and motorized access to many dispersed recreation activities would be precluded.

Figure 1-1: Travel Management Project Focus Areas



- b) Provide a diversity of motorized recreation opportunities (four wheel drive (4WD) vehicles, motorcycles, ATVs, passenger vehicles, etc.). It is Forest Service policy to provide a diversity of road and trail opportunities for experiencing a variety of environments and modes of travel consistent with the National Forest recreation role and land capability (FSM 2353.03(2)). Implementation of Subpart B of the Travel Management Rule could severely reduce motorized recreation opportunities relative to current levels. As a result, there is a need to consider limited changes to the vehicle classes permitted on existing NFTS roads as well as potential additions to the NFTS. Changing the status of these facilities from roads to motorized trails would better reflect current driveability, management, and recreational use patterns.
- c) Support Forest management and administrative activities consistent with current and intended use of specific NFTS roads needed only for administrative purposes, by restricting motorized use by the general public. These roads are currently used for the administration and management of the Forest, including Forest Service recreation and administrative facilities and authorized special uses or legal rights of access. As such, they currently receive little to no use by the general public. Formally closing these roads to public use but retaining them for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization) would provide consistency between management and use.
- d) Close specific NFTS roads to public motor vehicle use, where private landholders have stated that public motorized access across the property is not granted. The Forest Service does not have the authority provide public entry or to cross the private property on these roads.

In meeting these needs, the proposed action should also:

- A. Avoid impacts to cultural resources.
- B. Provide for public safety.
- C. Provide access to public and private lands.
- D. Administer and maintain roads, trails, and areas based on availability of resources.
- E. Minimize damage to soil, vegetation and other forest resources.
- F. Minimize harassment of wildlife and significant disruption of wildlife habitat.
- G. Minimize conflicts between motor vehicles and existing or proposed recreational uses of NFS lands.
- H. Minimize conflicts among different classes of motor vehicle uses of NFS lands or neighboring federal lands.
- I. Assure compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, etc.
- J. Maintain valid existing rights of use and access (rights-of-way).

1.4 Proposed Action

The Proposed Action is designed to address the need to regulate unmanaged motor vehicle use, provide motor vehicle access to existing dispersed recreation opportunities, and provide a diversity of motorized recreation opportunities. The Proposed Action would:

- Prohibit cross-country motorized travel off of designated NFTS roads, trails and the Poleta open area.
- Add 876 miles of unauthorized routes as NFTS roads.
- Add 53 miles of unauthorized routes as NFTS motorized trails.
- Convert 12 miles of existing NFTS road to NFTS motorized trails open to vehicles 50 inches or less and 9 miles of NFTS road to trails open to motorcycles.
- Close 28 miles of existing NFTS roads to public motor vehicle use and retain 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Including the additions and closures described above, the Proposed Action would result in a system of 2,168 miles of NFTS roads and 74 miles of NFTS motorized trails open to public motorized use. A more detailed description of the Proposed Action including required Forest Plan amendments can be found in Chapter 2. Maps of the Proposed Action are available on compact disc.

1.5 Principle Laws and Regulations that Influence the Scope of this EIS

The National Environmental Policy Act of 1969 (NEPA) requires that all major federal actions significantly affecting the human environment be analyzed to determine the magnitude and intensity of those impacts and that the results be shared with the public and the public given opportunity to comment. The regulations implementing NEPA further require that to the fullest extent possible, agencies shall prepare environmental impact statements concurrently with and integrated with environmental analyses and related surveys and studies required by the Endangered Species Act of 1973, the National Historic Preservation Act of 1966, and other environmental review laws and executive orders. Principle among these are the Multiple Use and Sustained Yield Act of 1960, the National Forest Management Act of 1976 as expressed through the Inyo National Forest Land and Resource Management Plan, the Clean Air Act of 1955, the Clean Water Act of 1948, and the Forest and Rangeland Renewable Resources Planning Act of 1974. In addition, the INF Travel Management EIS is designed specifically to implement the requirements of 36 CFR 212, Subpart B, of the November 5, 2005 Rule for Travel Management (36 CFR 212.50-57). Other laws, regulation, and guidance specific to individual resources are found within the respective resource section in Chapter 3 of this document.

California state law requires each county and city to prepare and adopt a comprehensive and long-range general plan for its physical development. County general plans influence, but do not control, activities within non-jurisdictional areas, including lands under federal management. County staff generally review proposals prepared by land management agencies like the Forest Service for consistency with the General Plan and provide comments and alternative solutions where

inconsistencies exist. However, in response to a request from the Inyo County Board of Supervisors, Forest Service staff has reviewed the Inyo County General Plan (December 2001) to evaluate the consistency of the six EIS alternatives with that plan. Based on that review, it has been determined all action alternatives provide provisions for continued access through and within the county, continued provision of public recreational facilities and access, and multiple use management of the land and resources (Government Implementation Measure 4.0, p. 3-8). This determination is demonstrated through a discussion of some relevant general plan policies, including the following:

Biological Resource Policy 2.1 - ...Preserve and protect biological resources while maintaining the ability to utilize and enjoy the natural resources in the County (Conservation/Open Space Element, p. 8-34)

- Management of biological resources is an important part of the mission of the Forest Service (Resource Planning Act of 1974, National Forest Management Act of 1976). Management activities on NFS lands must be planned and implemented so that they do not jeopardize the continued existence of plant or animal species, as well as to protect the hydrologic functions of forest watersheds, including the volume, timing, and quality of streamflow. To the degree consistent with the objectives of the alternative and applicable law, regulation, and policy, the action alternatives prescribe mitigations to allow routes to be added to the system rather than closed to public travel. For example, Alternative 4 emphasizes eliminating or avoiding existing or potential resource impacts, and does so by adding fewer routes (and therefore requires fewer mitigations) to the NFTS. Alternative 3, on the other hand, maximizes motorized recreation opportunities by adding more routes to the NFTS, and therefore specifies additional mitigations on those routes to reduce effects to acceptable levels. Effects of the alternatives on biological resources are addressed in Chapter 3 of this EIS.

Biological Resource Policy 2.2 - Encourage appropriate access to resource-managed lands (Conservation/Open Space Element, p. 8-34)

- In all action alternatives, proposed NFTS additions were focused on routes which provide access to key destinations, loops and connectors which provide longer riding time; routes which increase the diversity of opportunities for different vehicle classes (ATVs, motorcycles, full-size 4WD); and routes that provide semi-primitive riding experiences. While the recreational value of a route was considered in the development of all alternatives, these considerations were given more or less weight depending on the overall objectives and emphasis of an alternative. In Alternative 3, for example, the emphasis was on adding more unauthorized routes to the system as roads and trails—focusing on routes which form loops or connectors, or those which can be managed as motorized trails for different types of vehicles. Alternative 4, on the other hand, adds fewer miles of routes to the system by avoiding routes with existing or potential resource concerns, even those routes with known recreational value.

Recreation Policy 1.1 - Encourage the use of the natural environment for passive recreation opportunities (Conservation/Open Space Element, p. 8-50)

- To compare the opportunity for recreationists to experience passive non-motorized or recreation opportunities beyond the immediate influence of roads and motorized trails, a ¼ mile buffer was applied to all roads and motorized trails and the acreage outside of this buffer calculated for all alternatives. In all alternatives, these areas range from less than one acre to over 225,000 acres in size (the largely unroaded area of the White Mountains). While the “minimum” or “optimum” size, shape, or characteristics of such an area are highly subjective, the potential for a high quality non-motorized recreation experience is considered to be higher in larger, more contiguous tracts of land. Based on this analysis, all action alternatives increase the potential for use of the natural environment for passive recreation opportunities. All action alternatives would increase both the number and size of areas greater than ¼ mile from roads and motorized trails. (See section 3.3 for additional information about dispersed recreation opportunities.)

Recreation Policy 1.2 - Encourage the continued management of existing recreation area and open space, and appropriate expansion of new recreational opportunities on federal lands (Conservation/Open Space Element, p. 8-50)

- All action alternatives would result in a designated transportation system of roads and motorized trails on the Inyo National Forest. A well-signed, designated system of roads and motorized trails offers better opportunities for sustainable, long-term motor vehicle use and better economic opportunities for local residents and communities. Reduction in the number of short spurs and duplicate routes—coupled with appropriate signage and publication of the Motor Vehicle Use Map (MVUM) and subsequent visitor use maps—could make some areas more accessible for exploration, especially for non-local visitors. Rather than eliminating or reducing options for local and non-local visitors, recreational opportunities on NFS land within the county are expected to increase in quality as a result of the action alternatives. (See sections 3.2 and 3.3 for additional information.)

1.6 Decision to be Made

The Forest Supervisor for the Inyo National Forest will be the responsible official. The responsible official will decide whether to adopt and implement the proposed action, an alternative to the proposed action, or take no action at this time.

This proposal does not revisit previous administrative decisions that resulted in the current NFTS. This proposal is focused on implementing 36 CFR 212 Subpart B of the Travel Management Rule. Previous administrative decisions concerning road construction, road reconstruction, trail construction, and land suitability for motorized use on the existing NFTS are outside of the scope of this analysis.

1.7 Public Involvement

Public involvement in the travel management planning process to date has occurred during three key periods. The first phase of public collaboration began in 2004 and continued into the fall of 2007, the second during the 75-day public scoping period for the Notice of Intent (NOI), and third during meetings with members of public groups to explore issues raised during scoping.

Beginning in the fall of 2004, the INF held a series of public workshops to get comments and feedback on the inventory of unauthorized routes. The public provided feedback on:

- Presence or absence of unauthorized routes on inventory maps;
- Type of recreation or access the route provides (touring, challenge, fishing, hunting, etc.);
- Types of vehicles used on route; and
- Key destinations and recreation opportunities, such as scenic viewpoints and dispersed campsites.

In the fall of 2005, a group of interested individuals with a range of perspectives came together to offer their ideas on how to best engage the public during the collaboration process. This group, known as the “design team”, helped the Forest develop the process used to involve the public in the travel management planning process and assisted with outreach efforts in compliance with the Federal Advisory Committee Act (FACA).

Collaborative development of the proposed action (commonly referred to as “Step 3”) began in the spring of 2006 with a series of public meetings and workshops. The purpose of this step was to gather public information about inventoried unauthorized routes, including the benefits and opportunities provided by particular routes, as well as potential concerns or issues. More than ten meetings and workshops were held in various towns and cities in the vicinity of the Forest, including Lee Vining, June Lake, Mammoth Lakes, Bishop, Lone Pine, and Ridgecrest, CA. Consultation was also initiated with local tribal governments during this phase. The Forest presented project updates for County Boards of Supervisors, as well as for the Mammoth Planning Commission and other groups as requested.

Public scoping for the INF Travel Management EIS began on October 1, 2007 with publication of the Notice of Intent to Prepare an Environmental Impact Statement in the Federal Register. That notice identified the purpose and need for the action, summarized the Proposed Action, provided information about the process, and initiated a public comment period scheduled to end on November 15, 2007. In response to public and local government requests, this period was extended to December 15, 2007. The public was also notified of the scoping period through news releases to the local media, the INF website, and mailings to interested individuals and other agencies, tribes and organizations. The Forest received comments from almost 400 individuals, organizations, and agencies during the scoping period.

During the scoping period three public meetings were held in Bishop, Mammoth Lakes, and Ridgecrest. The meetings provided an overview of the need for the proposed action and the planning process. In addition to these meetings, the public was invited to two open houses at the Supervisor’s Office in Bishop and one at the Ranger Station in Lone Pine. A total of 103 people attended the six public meetings. Participants were invited to review materials, and participate in a question and answer period. The questions and answers from those meetings were made available on the INF

website. All attendees were reminded and encouraged to participate in the scoping process by submitting their comments in writing.

1.7.1 Issues

Comments received during scoping were used to identify issues of key concern to the public. An issue is an unresolved conflict with the Proposed Action, or an effect on physical, biological, social, or economic resources caused by the Proposed Action. An Interdisciplinary Team (IDT) of specialists representing a variety of disciplines participated in the comment analysis and issue identification.

The IDT recorded, compiled, reviewed, and analyzed the comments to identify the issues to be addressed in the Environmental Impact Statement (EIS). At this stage in reviewing and analyzing the comments, the IDT determined whether the comment identified an unresolved conflict with the Proposed Action. Comments that identified specific impacts that would be caused by one or more components of the Proposed Action were identified as issues.

During this review process, the issues with the Proposed Action were categorized as Significant Issues, Minor or Non-Significant Issues, or Issues Not Analyzed in Detail. From the comments received, the IDT identified three significant issues, five non-significant issues, and seven issues not analyzed in detail. A list of non-significant issues and reasons why they were found non-significant may be found in the Scoping Report in the project record located at the Inyo National Forest Supervisor's Office in Bishop, CA, or on the Forest's website at: www.fs.fed.us/r5/inyo/projects/ohvroute5.shtml

1.7.1.1 Significant Issues

Significant Issues are used to formulate alternatives to the Proposed Action or prescribe mitigation and monitoring measures to reduce or eliminate environmental effects. They are also used to focus the environmental analysis in the Environmental Impact Statement on the main issues raised by the public.

Issue #1. The route inventory identified 1,699 miles of existing unauthorized routes and the proposed action only adds 929 miles of these to the NFTS. Reducing the miles of routes available for public motorized use and prohibiting cross-country travel as described in the proposed action will adversely affect the quality and quantity of motorized recreation experiences because it:

- Does not provide adequate access to key destinations, including campsites, scenic overlooks, and hunting areas;
- Reduces loops and connectors to provide longer riding time and spurs for exploration;
- Reduces the diversity of opportunities for different vehicles (ATVs, motorcycles, 4WD); and
- Reduces semi-primitive riding opportunities and experiences.

Issue #2. Public motorized use of roads and trails as described in the Proposed Action will adversely affect non-motorized recreation experience (engine noise, dust, conflicts, and aesthetic values).

Issue #3. Public motorized use of roads and trails as described in the Proposed Action will adversely affect forest resources. This includes:

- Erosion, soil compaction, and reduction in water quality;
- Degradation of habitat for fish, wildlife, and rare plants;
- Damage to heritage resources;
- Proliferation of weeds; and
- Inventoried roadless area character, compromising future wilderness designation

This Page Intentionally Left Blank

Chapter 2: The Alternatives

2.1 Introduction

This chapter describes and compares the alternatives considered for the Inyo National Forest Motorized Travel Management EIS. It describes both alternatives considered in detail and those eliminated from detailed study. The end of this chapter presents the alternatives in tabular format so that the alternatives and their environmental impacts can be readily compared.

Based on the issues identified through public comment on the proposed action, the Forest Service developed 5 alternative proposals that achieve the purpose and need differently than the proposed action. In addition, the Forest Service is required to analyze a No Action alternative. The no action, proposed action, and other action alternatives are described in this chapter.

The chapter is divided into four parts:

- How the alternatives were developed;
- Alternatives considered in detail, including proposed Forest Plan amendments, mitigation measures, and monitoring;
- Alternatives that were considered, but eliminated from detailed analysis. It includes the rationale for eliminating these alternatives; and
- Comparison of the alternatives based on their environmental, social and economic consequences.

2.2 How the Alternatives Were Developed

The Forest Service used the significant issues listed in Chapter 1 to develop the alternatives to the Proposed Action. The alternatives provide different approaches to:

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

In addition to the issues raised during the 75-day public scoping period, several groups submitted alternative proposals for consideration by the Forest Service. The six alternatives incorporate elements of these proposals as well as other comments submitted by the public. In addition, information gathered by the Forest Service in their consultation and discussions with tribal representatives, local counties, State and Federal agencies, and Forest Service employees was used to develop and refine the alternatives.

2.2.1 Alternatives Considered in Detail

Five action alternatives (Alternatives 2, 3, 4, 5, 6) and a no action alternative (Alternative 1) are analyzed in detail in this DEIS. Each alternative assumes that other adjacent federal lands, such as those administered by the Bureau of Land Management will be managed according to existing management plans and applicable federal laws. Each alternative also assumes that private lands will meet applicable state and federal land use regulations.

2.3 Descriptions of the Alternatives

This section describes each of the six alternatives considered in detail. Each action alternative is comprised of one or more of the following actions:

- Prohibition of cross-country travel: All of the action alternatives would implement a permanent Forest Order prohibiting public motor vehicle travel off designated National Forest Transportation System (NFTS or system) roads, motorized trails, and areas except as allowed by permit or other authorization. The prohibition of cross-country travel is included in order to address the need to regulate motor vehicle use. The action alternatives also include actions to clarify management and use within the Poleta open area, including additional signage and, in Alternative 4, closing the area to cross-country travel and restricting use to designated routes.
- Additions to the NFTS: Alternatives 2, 3, 4 and 6 propose to add unauthorized routes to the NFTS as roads or motorized trails. Proposed additions include the vehicle class (e.g., passenger car, motorcycle, all-terrain vehicle, etc.) allowed to operate on the road or trail and, in some cases, the season of use. Additions are considered in order to respond to the need to provide motor vehicle access to dispersed recreation opportunities and to provide a diversity of motorized recreation opportunities. For purposes of this analysis, each of these roads and trails is identified by a unique number. Each road and trail addition, including any proposed mitigation measures, is individually listed in Appendix A.
- Changes to NFTS related to vehicle class: The action alternatives may include limited changes to the vehicle class allowed on existing NFTS roads. Vehicle class indicates the type of vehicle (passenger car, motorcycle, all-terrain vehicle, etc.) allowed to operate on a road or trail. Because proposed changes in vehicle class for existing NFTS roads are primarily based on existing tread width and characteristics, this action will align current and intended management of these roads as trails.
- Changes to NFTS related to administrative use: The action alternatives propose limited changes in public motorized access to existing NFTS roads currently used for the administration and management of the Forest, including Forest Service recreation facilities, authorized special uses, and legal rights of access. This action responds to the need to support Forest management and administrative activities by limiting public access on certain roads.
- Changes to the NFTS related to Wilderness intrusion: Higher levels of mapping accuracy used during this process show the location of the Laurel Lakes road intruding into John Muir Wilderness. Unless and until congressional action adjusts the boundary, use of motorized vehicles on this road will be prohibited.
- Changes to the NFTS related to rights-of-way across private land: The action alternatives close specific NFTS roads to public motor vehicle use where private landholders have not granted public motorized access across the property. The Forest Service does not have the authority to provide public entry into or across private property on these roads.

2.3.1 Alternative 1: No Action

The No Action Alternative represents existing conditions and provides a baseline for comparing the other alternatives. Under the No Action alternative, the 1988 Inyo National Forest Land and Resource Management Plan (LRMP or Forest Plan) would continue to guide management of the project area. The Travel Management Rule would not be implemented, and no Motor Vehicle Use Map (MVUM) would be produced. Specifically, the No Action Alternative would include the following:

1. Cross-Country Travel: No permanent Forest Order prohibiting cross-country travel prohibition would be in place. Currently, a temporary forest order prohibits cross-country motorized travel off of the routes and area shown in the associated forest order maps. The temporary order will remain in effect until April 17, 2009. It can be renewed for a period not to exceed two years if an action alternative implementing the Travel Management Rule is not selected, but would eventually expire.
2. Additions to the NFTS: Motorized use of all existing unauthorized routes (1,699 miles) would be allowed. Unauthorized routes would not be added to the NFTS and would continue to have no status or authorization as NFTS facilities.
3. Changes to the existing NFTS: No changes would be made to the current NFTS, which includes 1,341 miles of roads. There are no existing Forest Orders which apply annual seasonal closures on NFTS roads. However, heavy snowfall naturally restricts wheeled vehicle access on a number of system roads during the winter months.

2.3.2 Alternative 2: Proposed Action

Alternative 2 is the Proposed Action described in the Notice of Intent (NOI) published October 1, 2007 with minor corrections. The Proposed Action is comprised of the prohibition of cross-country motorized travel, the proposed changes to the existing NFTS and additions to the NFTS. See Appendix A for a listing of proposed route additions and changes to the NFTS.

1. Cross-country Travel: Public motorized vehicle travel off of designated NFTS roads, trails and open areas would be prohibited except as allowed by permit or other authorization. Management of the NFTS Poleta open area would be clarified by the installation of additional signage to more clearly delineate the open area boundaries.
2. Additions to the NFTS: The Proposed Action would add a total of 929 miles of new NFTS roads and motorized trails. These addition include the seasonal restriction listed in Table 2-1 below and:
 - 876 miles of unauthorized routes added to the NFTS as roads open to all vehicle classes (23 miles of this would be opened to public use only after completion of required mitigation);
 - 40 miles of unauthorized routes added to the NFTS as motorized trails for vehicles 50-inches wide or less; and
 - 13 miles of unauthorized routes added to the NFTS as motorized trails open to motorcycles only.

- Proposed amendment to forest plan direction for Dispersed Recreation to clarify that motorized use of proposed routes would be permitted within Primitive and Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS) classes as defined and mapped on the INF (LRMP p. 86; see the Recreation Resource section of Chapter 3 for more information).
- Proposed amendment to forest plan direction for Prescription 3, Mountain Sheep Habitat (LRMP, p. 116; see the Terrestrial Wildlife section of Chapter 3 for more information).

3. Changes to the existing NFTS :

- Convert 9 miles of existing NFTS road to motorcycle trail, and 12 miles of existing NFTS road to motorized trail for vehicles 50-inches wide or less,
- Close 28 miles of existing NFTS roads to public motor vehicle use and retain 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Table 2-1: Proposed Seasonal Restrictions on New NFTS Facilities, Alternative 2

Route #	Miles	Reason for Restriction	Open Period
02S602	0.19	Wildlife	Sep 1 – Apr 31

The Proposed Action has been modified since publication of the NOI based on new data which have provided additional information about the effects of the routes on forest resources. These new data were incorporated using the same criteria and rationale for adding routes to the NFTS as were used during development of the original Proposed Action. The following table shows the differences in actions proposed.

Table 2-2: Comparison of Actions Proposed Under the October 2007 Proposed Action and Alternative 2 (the DEIS Proposed Action)

	Oct. 2007 NOI (mi)	DEIS Alternative 2 Proposed Action (mi)
Total additions of NFTS roads and motorized trails	926	929
Routes added as NFTS roads (All Vehicles)	870	853
Routes added as NFTS roads – open to public use after completion of mitigation	3	23
Routes added as NFTS trails <50" Vehicles	37	40
Routes added as NFTS trails - Motorcycle	16	13
NFTS road converted to NFTS trail, <50"	7	12
NFTS road converted to NFTS trail, Motorcycle	4	9
NFTS roads closed to public use (administrative purposes and lack of rights-of-way)	0	28

In addition to the minor differences summarized above, the October 2007 Proposed Action relied upon incomplete data when identifying the baseline (NFTS) road system, and did not include certain roads in that baseline system that had a documented history of management for public motorized use. The baseline NFTS system changed from 1240 miles of routes at the time of the NOI to the current

system of 1341 miles reflected in Alternative 2. Finally, the original Proposed Action did not consider some inventoried unauthorized routes. These routes have been identified and considered for inclusion in Alternative 2 and the action alternatives using the same criteria and rationale used in the development of the original proposal.

2.3.3 Alternative 3: Maximize Access and Motorized Recreation Opportunities.

Alternative 3 responds to the issue of access and motorized recreation opportunity. During scoping the Inyo NF received suggestions for additional routes and alternative routes that would improve access and motorized recreation opportunity. See Appendix A for details on individual proposed route additions and changes.

1. Cross-country Travel: Public motorized vehicle travel off of designated NFTS roads, trails, and areas would be prohibited except as allowed by permit or other authorization. Management of the NFTS Poleta open area would be clarified by the installation of additional signage to more clearly delineate the open area boundaries.
2. Additions to the NFTS: Alternative 3 would add a total of 1,191 miles of new roads and motorized trails to the NFTS and would include the seasonal restrictions listed in Table 2-3. Proposed NFTS additions are as follows:
 - 847 miles of unauthorized routes added to the NFTS as roads open to all vehicles (20 miles of this would be opened to public use after completion of required mitigation);
 - 76 miles of unauthorized routes added to the NFTS as motorized trails for vehicles 50-inches wide or less (of which 3 miles would be opened to public use after completion of required mitigation);
 - 37 miles of unauthorized routes added to the NFTS as motorcycle trails (of which 1 mile would be opened to public use after completion of required mitigation);
 - 231 miles of unauthorized routes added to the NFTS as 4WD trails open to all trail vehicles (of which 17 miles would be opened to public use after completion of required mitigation);
 - Proposed amendment to forest plan direction for Dispersed Recreation to clarify that motorized use of proposed routes would be permitted within Primitive and Semi-Primitive Non-Motorized ROS classes as defined and mapped on the INF (LMP p. 86; see the Recreation Resource section of Chapter 3 for more information).
 - Proposed amendment to forest plan direction for Prescription 3, Mountain Sheep Habitat (LMP, p. 116; see the Terrestrial Wildlife section of Chapter 3 for more information).
3. Changes to the existing NFTS:
 - Convert 9 miles of existing NFTS road to motorcycle trail, 10 miles of NFTS road to ATV trail for vehicles 50-inches wide or less, and 171 miles of NFTS road to 4WD motorized trails open to all trail vehicles.

- Close 28 miles of existing NFTS roads to public motor vehicle use and retain 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Table 2-3: Proposed Seasonal Restrictions on New NFTS Facilities, Alternative 3

Route #	Miles	Reason for Restriction	Open Period
01N100	0.54	Soils, Watershed Condition	July 1 – Oct 31
02S602	0.19	Wildlife	Sep 1 – Apr 31
03S521	0.28	Soils, Aquatic Species	May 1 – Oct 31
11S122	0.25	Wildlife	June 1 – Oct 31
N2331	0.11	Wildlife	June 1 – Oct 31

2.3.4 Alternative 4: Minimize Impacts to Inventoried Roadless Areas, Natural Resources, and Cultural Resources

Alternative 4 responds to issues of conflicts with non-motorized recreation and natural and cultural resource impacts. This alternative does not add routes where resource concerns were raised internally and externally and does not add any motorized routes to the NFTS within Inventoried Roadless Areas (IRAs). See Appendix A for proposed route additions and changes.

1. Cross-country Travel: Motorized vehicle travel by the public off of designated NFTS roads, trails, and areas would be prohibited, except as allowed by permit or other authorization. As described below, the portion of the Poleta open area on NFS land would be closed to cross-country travel and motorized use restricted to designated routes. Additional signage would be installed to clearly delineate the roads and trails open for travel within the area. The proposed change to travel in the Poleta open area would require an amendment of the forest plan direction for the Semi-Primitive Recreation prescription (Rx 17, LMP p. 147) and Management Area 13 – White Mountains (LMP p. 211).
2. Additions to the NFTS: Alternative 4 would add a total of 695 miles of new roads and motorized trails, including:
 - 660 miles of unauthorized routes added to the NFTS as roads open to all vehicles (of which 19 miles would be opened to the public after completion of required mitigation);
 - 12 miles of unauthorized routes added to the NFTS as motorized trails for vehicles 50-inches wide or less;
 - 8 miles of unauthorized routes added to the NFTS as motorcycle trails;
 - 15 miles of unauthorized routes added to the NFTS as 4WD trails open to all trail vehicles;
 - Proposed amendment to forest plan direction for Dispersed Recreation to clarify that motorized use of proposed routes would be permitted within Primitive and Semi-Primitive Non-Motorized ROS classes as defined and mapped on the INF (LMP p. 86; see the Recreation Resource section of Chapter 3 for more information).

- Proposed amendment to forest plan direction for Prescription 3, Mountain Sheep Habitat (LMP, p. 116; see the Terrestrial Wildlife section of Chapter 3 for more information).
3. Changes to the existing NFTS:
- Convert 9 miles of existing NFTS road to motorcycle trail, 10 miles of NFTS road to ATV trail for vehicles 50-inches wide or less, and 171 miles of NFTS road to 4WD motorized trails open to all trail vehicles.
 - Close 28 miles of existing NFTS roads to public motor vehicle use and retain 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).
 - Close the 1,100-acre Poleta open area on National Forest System land to cross-country travel. Signs would be posted along the BLM-NFS boundary to inform users of the area of the new use restrictions. Travel would be restricted to designated routes listed in Table 2-4.

Table 2-4: Changes to the NFTS (roads available for motorized use after the Poleta open area is closed to cross-country travel)

Route #	Vehicle Class	Length
N2079	All Trail Vehicles	0.42
N2080	All Trail Vehicles	0.04
N2081	All Trail Vehicles	0.56
N2082	All Trail Vehicles	0.19
N2083	All Trail Vehicles	0.69
N2084	All Trail Vehicles	0.11
N2085	All Trail Vehicles	0.23
N2086	All Trail Vehicles	0.17
N2087	All Trail Vehicles	0.87
N2088	All Trail Vehicles	0.58
N2089	All Trail Vehicles	0.02
N2090	All Trail Vehicles	0.10
N2091	All Trail Vehicles	1.66
N2092	All Trail Vehicles	0.14
N2093	All Trail Vehicles	0.22
N2095	All Trail Vehicles	0.34
N2096	All Trail Vehicles	0.27
N2097	All Trail Vehicles	0.08
N2098	All Trail Vehicles	0.64
N2099	All Trail Vehicles	0.11
N2100	All Trail Vehicles	0.10
N2101	All Trail Vehicles	0.16
N2685	All Trail Vehicles	0.07
N2686	All Trail Vehicles	0.03
N2687	All Trail Vehicles	0.03
07S21	All vehicles	1.71
07S236	All vehicles	1.35
07S237	All vehicles	1.75
Total		12.6

2.3.5 Alternative 5: Cross-County Travel Prohibition Only – No Additions to the Current NFTS

Alternative 5 responds to the issues of conflicts with non-motorized recreation and natural and cultural resource impacts by prohibiting cross-country travel without adding any new facilities (i.e., roads and trails) to the NFTS. None of the currently unauthorized routes would be added to the NFTS under this alternative. This alternative also provides a baseline for comparing the long-term impacts of other alternatives that propose changes to the NFTS in the form of new facilities.

1. Cross-country Travel: Motorized vehicle travel by the public off of designated NFTS roads, trails, and areas would be prohibited, except as allowed by permit or other authorization. Management of the NFTS Poleta open area would be clarified by the installation of additional signage to more clearly delineate the open area boundaries.
2. Additions to the NFTS: Alternative 5 would not add any unauthorized routes to the NFTS. Cross-country travel, including motorized use of all existing unauthorized routes, would be prohibited. Alternative 5 includes:
 - Proposed amendment to forest plan direction for Prescription 3, Mountain Sheep Habitat (LMP, p. 116; see the Terrestrial Wildlife section of Chapter 3 for more information).
3. Close 28 miles of existing NFTS roads to public motor vehicle use and retain 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

2.3.6 Alternative 6: Modified Proposed Action

Alternative 6 responds to issues #1, 2, and 3. It is designed to balance the addition of routes of particular importance to the public with resource concerns raised during scoping. It modifies the Proposed Action by incorporating suggestions provided by members of an independent collaborative group convened by the Desert Mountain Resource Conservation and Development Council. This group utilized the October 2007 proposed action, then recommended specific changes that could be mutually agreed upon by the group. See Appendix A for proposed route additions and changes.

1. Cross-country Travel: Motorized vehicle travel by the public off of designated NFTS roads, trails, and areas would be prohibited except as allowed by permit or other authorization. Management of the NFTS Poleta open area would be clarified by the installation of additional signage to more clearly delineate the open area boundaries.
2. Additions to the NFTS: Alternative 6 would add a total of 995 miles of new roads and motorized trails, with the seasonal restrictions described in Table 2-5 below. Proposed NFTS additions include the following:
 - 861 miles of unauthorized routes added to the NFTS as roads open to all vehicles (of which 24 miles would be opened for public use after completion of required mitigation);
 - 19 miles of unauthorized routes added to the NFTS as motorized trails for vehicles 50-inches wide or less;
 - 20 miles of unauthorized routes added to the NFTS as motorcycle trails;
 - 95 miles of unauthorized routes as 4WD trails open to all trail vehicles (of which 10 miles would be opened to the public after completion of required mitigation).
 - Proposed amendment to forest plan direction for Dispersed Recreation to clarify that motorized use of proposed routes would be permitted within Primitive and Semi-Primitive Non-Motorized ROS classes as defined and mapped on the INF (LMP p. 86; see the Recreation Resource section of Chapter 3 for more information).

- Proposed amendment to forest plan direction for Prescription 3, Mountain Sheep Habitat (LMP, p. 116; see the Terrestrial Wildlife section of Chapter 3 for more information).
3. Changes to the existing NFTS:
- Convert 9 miles of existing NFTS road to motorcycle trail, 8 miles of NFTS road to ATV trail for vehicles 50-inches wide or less, and 149 miles of NFTS road to 4WD motorized trails open to all trail vehicles.
 - Close 28 miles of existing NFTS roads to public motor vehicle use and retain 23 miles of those roads for Forest Service administrative use (including motor vehicle use authorized by contract, permit, or other written authorization).

Table 2-5: Proposed seasonal restrictions on new NFTS facilities, Alternative 6

Route #	Miles	Reason for Restriction	Open Period
01N100	0.54	Soils, Watershed Condition	July 1 – Oct 31
02N135	2.25	Soils, Watershed Condition	July 1 – Oct 31
02S602	0.19	Wildlife	Sep 1 – Apr 31
03S521	.28	Soils, Aquatic Species	May 1 – Oct 31
11S122	0.25	Wildlife	June 1 – Oct 31
N2331	0.11	Wildlife	June 1 – Oct 31

2.3.7 Elements Common to All Action Alternatives

Motorized Mixed Use

Forest Service Manual (FSM) 7705 defines motorized mixed use as the as the designation of an NFTS road for use by both highway- legal and non-highway-legal motor vehicles. The California Vehicle Code (CVC) requires motor vehicles operated on highways be highway legal and be operated by licensed drivers. The CVC allows the operation of non-highway-legal vehicles operated by unlicensed drivers on roughly graded roads. The Inyo National Forest considers roads maintained for high clearance vehicles (Maintenance Level 2) as roughly graded and considers operation of non-highway legal vehicles on these roads to be consistent with state law.

The following proposals related to motorized mixed use apply to all action alternatives:

- **Vehicle classes allowed on unauthorized routes added to the NFTS as roads.** All of the unauthorized routes considered in one or more of the action alternatives have been determined to have minimal safety concerns (see Transportation Facilities section). All vehicle classes (including highway-legal and non-highway-legal vehicles) would be allowed if the route is added to the NFTS as a road. Use by non-highway-legal trail vehicles would be allowed on routes added to the NFTS as motorized trails.
- **Vehicle classes allowed on existing NFTS high clearance 4WD roads.** All existing high clearance NFTS 4WD roads have been determined to have minimal safety concerns (see Transportation Facilities section). All vehicles classes (including highway-legal and non-highway-legal vehicles) would be allowed in all action alternatives (Alternatives 2-6).

- **Vehicle classes allowed on existing NFTS passenger car roads.** Eleven roads maintained for passenger cars totaling 33 miles are being considered for mixed use. (See Transportation Facilities section in Chapter 3 for more information.) Pending the final results of the mixed use analysis, all vehicles classes (highway-legal and non-highway-legal vehicles) would be allowed to use these roads in all action alternatives (Alternatives 2-6). Non-highway-legal vehicles would not be allowed on any other passenger car roads.

Conversion to Motorized Trails

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

In very few circumstances – especially in Alternative 6, where some trail loops are being enhanced in response to public request for these recreational opportunities – characteristics of some routes may need to be modified over time to match the specified vehicle class. Typically, the approach to managing for development of trail characteristics will include signage and enforcement for the appropriate vehicle type, while allowing use and natural conditions to define the trail characteristics over time. If necessary, future management may include barriers to restrict the width of vehicles using a trail or changing the tread surface conditions to limit use to the appropriate trail vehicle. If future ground disturbing activities are needed, appropriate site-specific analysis will be conducted.

Routine Maintenance

Maintenance is defined as ongoing upkeep of a road necessary to maintain or restore the road in accordance with its road management objectives (FSM 7714). Under all alternatives, an annual maintenance plan for NFTS roads and trails will be developed at the beginning of the road maintenance season. Routine maintenance includes cleaning and repairing drainage structures (i.e., water bars, culverts and rolling dips); berm removal; clearing the travel surface of obstacles such as rock, slough, trees, and brush; clearing obstacles such as downed trees; blocking and naturalizing multiple routes or shortcuts; and incidental replacement or repair of existing structures such as barriers, walls, or causeways.

Roads and trails in need of maintenance at the beginning of the maintenance season (e.g., to address concerns related to spring run off, winter tree and snag fall and other environmental factors) are the first priority. Later in the season, maintenance focuses on maintaining high traffic volume roads; major repairs such as culvert replacement; and repairs needed to prevent or mitigate resource damage.

Maintenance activities on some routes, if added to the NFTS as roads or trails in any alternative, will be restricted to certain periods to protect rare plants prior to seed set. See the “mitigation measures” section below for a list of specific routes.

Mitigation Measures

Mitigation measures are specific actions that are proposed to avoid, reduce, or eliminate route-related impacts on forest resources. Proposed mitigation measures are summarized in the table below and listed by route in Appendix A. Mitigations prescribed for specific routes include:

- Barriers – Large boulders or other imported material, placed in close proximity to road or trail prism, designed to keep vehicle traffic on designated route. Typical barrier length ranges from 50-100 feet in length.
- Creek Crossing/Ford – Hardening of tread surface at approaches and through live water crossings, using a mix of placed rock, cobbles and/or gravels of size appropriate to stream flow. May include minor support of stream banks immediately adjacent to road or trail.
- Drainage – Waterbars, dips, or other water diversion feature designed to prevent water from flowing down tread.
- Hardening – Stabilizing tread through placement of rock, cobbles or gravels to eliminate or prevent erosion of tread materials. Typically applied to short sections, of approximately 50 feet in length.
- Reroute – Realignment from existing route location to an alignment which avoids impacts to natural or cultural resource. Includes closure and naturalization of abandoned route.
- Riparian/Meadow Stabilization – Similar to “hardening” described above, but typically needed in areas with more consistently wet soils. Could include placement of filter cloth or other geosynthetic material combined with rock or gravel fill.
- Signage – Placement of one of a variety of types of educational or enforcement signs, aimed at limiting off-route travel, parking, or other activities that could otherwise affect forest resources.
- Seasonal Restriction – Temporary closure of a route to public travel to avoid impacts to forest resources, road infrastructure, or a combination of these. Assumes placement of at least one gate and signage at each closure location.
- Weed Treatments – Implements noxious weed treatments ranging from hand-pulling to targeted chemical treatments analyzed in the 2007 “Environmental Assessment for Weed Eradication and Control on the Inyo National Forest”.
- Maintenance Restrictions - Maintenance activities on some routes, if added to the NFTS as roads or trails in any alternative, will be restricted to certain periods to protect certain rare plants prior to seed set. These maintenance restrictions do not limit the legal use of the roads or trails by the public. Maintenance activities would be restricted until after July 1st each season on the following routes proposed for addition to the NFTS in one or more alternatives. Alternatives 3 and 6 propose routes 01N181, 01N182, 01N185, 01N281, N2538. Alternative 2 proposes routes 01N185, 01N281, N2538.

Table 2-6: Summary of Proposed Mitigation Measures, by Alternative

	Proposed Mitigations (Unauthorized Routes)	Alt 2	Alt 3	Alt 4	Alt 6
Pre-designation Mitigations	Barrier	20	28	3	23
	Creek Crossing/Ford	1	3	8	1
	Drainage Work	3	2	3	5
	Hardening	4	4	4	6
	Riparian/Meadow stabilization	1	2	2	2
	Reroute to new alignment	0	3	0	1
	Signage	33	39	28	37
	Seasonal Restriction	0	1	0	1
	Weed Treatments	0	0	1	0
Post-designation Mitigations	Barrier	7	10	1	10
	Creek Crossing/Ford	16	24	0	21
	Drainage Work	57	84	15	69
	Hardening	12	22	5	17
	Riparian/Meadow Stabilization	3	6	1	6
	Reroute, New Alignment	0	0	0	0
	Signage	41	58	3	54
	Seasonal Restriction	1	4	0	6
	Weed Treatments	9	10	2	8

The action alternatives propose two stages for completion of mitigations. Pre-designation mitigations must be accomplished prior to opening the route for public motorized use (i.e., publication of the route on the MVUM). Post-designation mitigations are scheduled for completion after a route has been added to the system and opened for public use. Scheduling of mitigations is based on the following considerations:

- Roads and trails where the location or deteriorated condition is causing substantial effects to riparian, watershed, threatened, endangered or sensitive species, or significant cultural resources whether or not motorized vehicle use is occurring.
- Mitigations on routes requiring relatively low-cost, easily implemented work (such as signage or simple barriers) when mitigations must occur prior to public use.
- Roads and trails that provide connectivity and important access for the transportation network or other routes that have been identified as providing key public benefit and opportunities, and which require mitigation before designation.

Routes with pre-designation mitigations will not be open to motorized use until this work is accomplished. After mitigation has been performed, the route will appear as a designated public motorized road or trail on the next revision of the MVUM.

Mitigations have been analyzed for their potential to reduce or eliminate effects on specific resources associated with motorized use of the routes. These effects are disclosed in the resource sections of Chapter 3.

Monitoring

Monitoring is critical for evaluating the effectiveness of management decisions and the accuracy of analysis assumptions and conclusions. Monitoring of road and trail conditions is required, and must meet regional and/or national standards. If monitoring determines additional resource damage is occurring, steps to prevent further damage may be taken. If the mitigations are not effective or are not possible, additional road or trail closures may be required and would require additional NEPA analysis.

Proposed route-specific monitoring varies by alternative. As identified in Appendix A, resource specialists have identified approximately 150 routes where site-specific monitoring would be needed if the routes are added to the system for public use in an alternative. These include monitoring effects of the routes on wildlife, aquatic resources, rare plants, spread of noxious weeds, and cultural resources. In some cases, one route may be monitored to assess conditions of multiple resources.

In addition to effectiveness monitoring related to the actions of this project, many other forms of monitoring and data collection take place on the Forest. These include ongoing monitoring that is already prescribed, such as surveys of roads and trails for infrastructure condition, monitoring of cultural resource sites, noxious weed spread, rare plants, or wildlife surveys. Some of this monitoring may directly or indirectly assess the effects of roads or trails on resources, as well as generally assessing conditions of roads for stability and maintenance. While these monitoring efforts are not prescribed in this Travel Management EIS, these data will also be used whenever possible, in assessing either the effectiveness of the actions proposed or in adjusting future travel management actions.

Implementation Strategy

After a decision is made, a Motor Vehicle Use Map (MVUM) will be created and made available to the public at no cost. This map is the legal document which displays designated NFTS roads, trails, and areas on the Forest which may be legally traveled with a motorized vehicle, as well as the allowed vehicle class, and any seasonal or other use restrictions. As changes or corrections are made to the transportation system in the future, the MVUM will be periodically revised and reissued. All NFTS roads and trails open to public use will be signed on the ground with a road or trail number and any regulatory information that may apply to the route.

Limited physical restoration, barricading, and naturalization of unauthorized routes are authorized under the action alternatives. Effects of these treatments have been considered and included in the effects determinations disclosed in Chapter 3. Further NEPA analysis is not needed to implement these treatments provided the following conditions are met:

- Ground disturbance is limited to the currently impacted surface of the unauthorized route, and is conducted using hand tools.
- Natural materials, if needed for blocking or restoring the surface, are either gathered within close proximity (approximately 30 feet) of the route edge, or are imported from a similar site where vegetation was disturbed for another project or activity.
- Sufficient site clearance has been conducted to ensure natural or cultural are avoided or adequately protected during implementation.

Implementation of the above work would not preclude future management decisions made after conducting appropriate site-specific analysis under NEPA (such as converting the unauthorized route to a mountain bike or other non-motorized trail or decommissioning the route to restore it to a more natural condition).

2.4 Alternatives Considered but Eliminated from Detailed Analysis

The following describes the alternatives that were considered but eliminated from detailed study and the rationale why they were eliminated.

2.4.1 Blue Ribbon Coalition Recreation Alternative

This alternative provided conceptual suggestions for development of an alternative. Key points include:

- Designate maximum number of routes.
- Focus closures on redundant and low value routes.
- Designate all routes currently used by OHV unless causing “considerable effect”.
- Designate routes that have received State or federal funds.
- Designate high-use/high-concentration areas where all existing routes are available for motorized use.
- Maximize “trail” designations in Inventoried Roadless Areas (IRA).
- Identify “event only” routes and OHV Special Use Permit areas.
- Analyze wide corridor for dispersed use, camping, etc.
- Maximize mitigation instead of closing routes.
- Add routes to NFTS with conditional designation.

Rationale for elimination

As described below, many of the key points were considered in one or more alternatives considered in detail in this analysis.

1. Designate maximum number of routes.
 - Two alternatives were considered in detail that address this suggestion: Alternative 3 and Alternative 1. Alternative 3 maximizes route additions based on public comments, placing particular emphasis on routes which provide access to key destinations, loops and connectors which provide longer riding time; routes which increase the diversity of opportunities for different vehicle classes (ATVs, motorcycles, full-size 4WD); and routes that provide semi-primitive riding experiences. In addition, Alternative 1 (no action) displays the effects associated with use of all existing unauthorized routes on the social, physical, and biological environment.
2. Focus closures on redundant and low value routes.

- The recreational value of a route was considered in all action alternatives, although these considerations were given more or less weight depending on the overall objectives and emphasis of the alternative. In Alternative 3, for example, the emphasis was on adding more unauthorized routes to the system as roads and trails—focusing on routes which form loops or connectors, or those which can be managed as motorized trails for different types of vehicles. Alternative 4, on the other hand, adds fewer miles of routes to the system by avoiding routes with existing or potential resource concerns, even those routes with known recreational value.
3. Designate routes that have received State or federal funds.
 - Forest Service Manual 7715.5 specifies the criteria to be used when designating NFTS roads, trails, and areas. Funding sources used to implement resource protection measures on unauthorized routes are not listed among the criteria. Therefore, we will not consider this suggestion in detail in this analysis.
 4. Designate high-use/high-concentration areas where all existing routes are available for motorized use.
 - Designating high use/high-concentration areas where all existing routes are available for motorized use would not meet the purpose and need for action described in Chapter 1 of this document. The responsible official has worked with user groups and others to identify those unauthorized routes that should be considered for designation, based on the criteria in 36 CFR 212.55. These routes are considered in one or more of the action alternatives (Appendix A).
 5. Maximize “trail” designations in Inventoried Roadless Areas (IRA).
 - Alternatives 2, 3, 4, and 6 propose adding routes to the NFTS within IRAs to the degree consistent with the objectives of the alternative and maintenance of roadless area characteristics. (See the IRA section of Chapter 3.) This suggestion has been addressed through the analysis of Alternative 1, which discloses the effects of allowing use of all existing unauthorized routes on roadless characteristics. In addition, Alternative 3 proposes to add 60% of the routes within IRAs to the NFTS, based primarily on the route-specific recommendations and suggestions provided by the public during scoping.
 6. Identify “event only” routes and OHV Special Use Permit areas.
 - Identification of “event only” routes and Special Use Permit areas is outside the scope of this analysis. Motor vehicle use off designated roads, trails, and areas may be authorized by a contract, easement, special use permit, or other written authorization issued under federal law or regulation (36 CFR 212.51(a)(8); FSM 7716.2). Proposals for OHV events on or off designated routes would be considered and analyzed consistent with Forest Service policy and the Travel Management Rule.
 7. Analyze wide corridor for dispersed use, camping, etc.
 - The Forest inventory identified most short spurs receiving motorized use, and those spurs are under consideration in each of the action alternatives. As a result, designation of a wide corridor is not needed to provide motorized access to a diversity of dispersed recreation opportunities.
 8. Designate all routes currently used by OHV unless causing “considerable effect” and Maximize mitigation instead of closing routes.

- To the degree consistent with the objectives of the alternative, the action alternatives prescribe mitigations to allow routes to be added to the system rather than closed to public travel. For example, Alternative 4 emphasizes eliminating or avoiding existing or potential resource impacts, and does so by adding fewer routes (and therefore requires fewer mitigations) to the NFTS. Alternative 3, on the other hand, maximizes motorized recreation opportunities by adding more routes to the NFTS, and therefore specifies additional mitigations on those routes to reduce effects to acceptable levels.
9. Add routes to NFTS with conditional designation.
- As described in the Mitigation Measures section of this chapter, Alternatives 2, 3, 4, and 6 would open some high value routes to public use on the condition that prescribed mitigations are completed prior to actual designation (i.e., publication on the MVUM). Such pre-designation mitigations are assigned based on the severity of the effect, often to roads and trails that provide connectivity and important access for the transportation network. In contrast, post-designation mitigations are scheduled for completion after a route has been added to the system and opened for public use.

2.4.2 California Association of 4WD Clubs – recreation alternative.

This alternative brought forth most of the same points as the BRC alternative described above. The rationale for not analyzing the proposed alternative in detail is the same.

2.4.3 Programmatic Reduction in NFTS and Unauthorized Route Density (The Wilderness Society)

This alternative provided broad recommendations for the consideration of unauthorized routes and management of existing NFTS roads. Key points include:

- Do not add unauthorized routes to the NFTS and close and decommission NFTS routes in the following areas: Wilderness, Primitive and Semi-Primitive Non Motorized Areas, Proposed Wilderness, Research Natural Areas (RNAs), habitat for T&E species, Proposed Wild River Corridors.
- Do not add unauthorized routes to the NFTS and close and decommission the majority of NFTS routes in: Inventoried Roadless Areas, Citizen-inventoried IRAs, Special interest areas, on National Scenic Trails, near Cultural sites, proposed and existing Scenic and Recreational River Corridors, montane meadows and meadow management zones.
- Do not designate unauthorized routes to the NFTS and monitor NFTS roads and trails near State and Forest Service Sensitive species and Riparian Conservation Areas.

Rationale for elimination

The suggested alternative was eliminated from detailed study because it would not meet the Purpose and Need as described in Chapter 1, many of the suggested components are encompassed within the existing range of alternatives analyzed in detail in this EIS, and includes suggested actions which have already been decided in the Forest Plan or other law, regulation, or policy. Each component of the suggested alternative is described in more detail below, along with the rationale for elimination.

- 1. Suggestions to decommission NFTS routes in Wilderness, Primitive and Semi-Primitive Non Motorized Areas, Proposed Wilderness, Research Natural Areas (RNAs), habitat for T&E species, Proposed Wild River Corridors, Inventoried Roadless Areas, Citizen-inventoried IRAs, Special Interest Areas, National Scenic Trails, Cultural sites, proposed and existing Scenic and Recreational River Corridors, meadows. Monitor NFTS routes in State and Forest Service Sensitive species and Riparian Conservation Areas.**

Management of the transportation system on the Inyo National Forest is a dynamic process. During the past 30-40 years, the Forest has added roads to the NFTS, decommissioned roads that were causing resource impacts or that were no longer needed for the use and management of the Forest, and identified and mitigated road-related resource concerns. These actions have been accomplished as part of forest plan development and through project-level planning and decisions.

As described in the Purpose and Need, the Responsible Official has determined that existing NFTS roads and trails will not be considered for repair, reconstruction, or decommissioning as part of this proposal. This action is not addressing the creation of a travel management plan, but rather deals specifically with Subpart B of the Travel Management Rule, which provides direction for a system of NFTS roads, trails, and areas designated for motor vehicle use, and the prohibition of motor vehicle use off designated roads and trails and outside designated areas. Subpart B is intended to prevent resource damage caused by unmanaged motor vehicle travel by the public. Therefore, any analysis of our existing system and comprehensive changes made to that system are beyond the scope of this current proposal.

Although no further analysis or decision is necessary to continue public motorized use of the existing 1,341 miles of NFTS roads or 1,100-acre Poleta open area on the Forest, cumulative environmental effects of the existing NFTS are fully analyzed for all affected resources.

- 2. Suggestions to avoid adding unauthorized routes to the NFTS in certain areas have also been considered, as described below:**

Do not add routes to the NFTS within Wilderness, Proposed Wilderness (Rx #2), Special Interest Areas, National Scenic Trails, and Research Natural Areas (RNAs): This suggestion is encompassed within the existing range of alternatives. None of the action alternatives add unauthorized routes to the NFTS within designated Wilderness, proposed Wilderness, Bristlecone Pine Special Interest Area, Pacific Crest Trail, and Research Natural Areas.

Do not add routes to the NFTS within Inventoried Roadless Areas (IRAs): This suggestion is encompassed within the existing range of alternatives. Alternatives 4 and 5 do not add any routes to the NFTS within IRAs. Alternative 2, 3, and 6 propose to add 35 miles, 82 miles, and 222 miles of unauthorized routes to the NFTS, respectively. The effects of these alternatives are compared to Alternative 1 (no action), which would allow continued use of all existing unauthorized routes in IRAs. Analyzing a wide range of proposals for route additions in IRAs allows for full disclosure of potential effects of motorized use on roadless characteristics. See the IRA section of Chapter 3 for more information.

Do not add routes to the NFTS within citizen-inventoried roadless areas: This suggestion is encompassed within the existing range of alternatives. As described in the IRA section of Chapter 3, Alternative 5 does not add any routes to the NFTS within the portions of citizen-inventoried roadless areas outside of agency-identified IRAs. The effects of Alternative 5 are compared with those of Alternatives 4, 2, 6, and 3, which add 39, 46, 49, and 62 miles of unauthorized routes to the NFTS, respectively. The no action, which would allow continued use of all existing unauthorized routes within citizen-inventoried roadless areas, provides a baseline for comparison of the effects of the action alternatives.

Do not add routes to the NFTS within Primitive and Semi-Primitive Non-Motorized Recreation Opportunity Spectrum (ROS) classes: This suggestion was not analyzed in detail because it is already decided by Forest Plan direction. The current ROS inventory on the Inyo NF was conducted during Forest Plan development using aerial photos, as a preliminary inventory until a complete inventory could be done (Responsive Statement - Appeal #3001, Regional Forester Paul Barker, 10/3/89). The intent of the Forest Plan was to incorporate the preliminary ROS mapping only as an interim guide until the 1977 Motor Vehicle Use Plan was updated and routes were designated forestwide. If necessary, ROS was then to be changed to comply with the system of designated routes.

The current proposal carries out Forest Plan direction to update motor vehicle use direction for the forest by designating a system of roads and trails. As such, it includes a Forest Plan amendment to forest plan direction for Dispersed Recreation to clarify that motorized use of proposed routes would be permitted within Primitive and SPNM ROS classes as defined and mapped on the INF (LMP p. 86). See the Recreation Resource section of Chapter 3 for more information.

Do not add routes to the NFTS within proposed and existing Wild, Scenic and Recreational River Corridors: These suggestions are incorporated into Alternative 5, which would not add any unauthorized routes to the NFTS. For the other alternatives, proposals to add existing routes to the NFTS within eligible or suitable river corridors would protect river values as specified by Forest Service policy (FSH 1909.12, section 82.51(7)). All proposed unauthorized route additions are consistent with current LRMP management direction and Forest Service policy regarding management of proposed and existing wild and scenic river segments.

Do not add routes to the NFTS within habitat for threatened, endangered and sensitive species; meadows; and Riparian Conservation Areas: These suggestions are fully addressed and analyzed in Alternative 5, which would not add any unauthorized routes to the NFTS. The other action alternatives propose varying levels of route additions within these areas, consistent with the management objective of the alternative and relevant law, regulation, and policy.

Do not add routes to the NFTS within cultural sites: This suggestion is encompassed within the existing range of alternatives. As described in Chapter 1, avoiding impacts to cultural resources is one of the criteria to consider when evaluating changes to the NFTS. As such, all of the action alternatives have been designed to avoid and/or mitigate effects on cultural sites. The No Action

alternative is the only alternative that would permit adverse effects to historic properties without prescribing and implementing mitigation measures to eliminate those effects.

2.5 Comparison of Alternatives

Chapter 3 describes the environmental consequences of the alternatives in detail. This section of Chapter 2 compares the alternatives by summarizing key differences between the alternatives and provides a summary of the effects analysis for all alternatives.

Table 2-7: Summary of Proposed Additions and Changes to the NFTS by Alternative

		Alt 1 ¹	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Action 1	Area Under a Permanent Prohibition on Cross-country Travel	0	1.3 million acres	1.3 million acres	1.3 million acres (including Poleta)	1.3 million acres	1.3 million acres
Action 2	Roads added to NFTS (mi)	0	876	847	660	0	861
	Motorcycle Trails added to NFTS (mi)	0	13	37	8	0	20
	Trails added to NFTS for <50" vehicles (mi)	0	40	76	12	0	19
	4WD Trails added to NFTS for All Trail Vehicles (mi)	0	0	231	15	0	95
	Open Areas added to NFTS	0	0	0	0	0	0
	Number of routes added to NFTS with seasonal restrictions	0	1	5	0	0	6
	TOTAL MILES OF ROADS AND TRAILS ADDED TO NFTS (mi)	0	929	1191	695	0	995
Action 3	Seasonal Restrictions on Existing NFTS Roads	N/A	N/A	N/A	N/A	N/A	N/A
	Changes in Vehicle Class from NFTS Road to Motorized Trail (mi)	0	21	190	161	0	166
	Acres of existing NFTS open area closed to cross-country travel	0	0	0	1,100 acres. Use restricted to designated routes.	0	0
	Closing NFTS roads to public use (mi) / Miles retained in NFTS for administrative use only	0	28/23				

¹ No unauthorized routes would be added to the NFTS under Alternative 1, although all existing routes (1,699 miles) would remain available for use by the public.

2.5.1 Summary of Environmental Consequences

The following table summarizes the effects of the six alternatives on natural, cultural, and social resources. Effects are described in more detail in Chapter 3 of this document.

Table 2-8: Summary of Direct and Indirect Effects of the Alternatives on Forest Resources

Resource Area	Indicator	Alt 1 ^a	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Aquatic Wildlife	Overall effect of routes within or adjacent to TES aquatic biota habitat.	Moderate	Negligible	Minor	Negligible	Beneficial	Negligible
Botanical Resources	Number of sensitive/watch list species/fens within 100 feet of routes available for motorized use ^b	107 / 202 / 4	49 / 75 / 1	66 / 89 / 4	8 / 67 / 0	2 / 1 / 0	58 / 76 / 2
Cultural Resources	Number of cultural sites at risk	82	49	62	33	0	54
Economics	Visitor spending	No measurable effect	No measurable effect	No measurable effect	No measurable effect	No measurable effect	No measurable effect
Inventoried Roadless Areas	Overall effect on Roadless Characteristics	Minor adverse	Minor beneficial	Minor beneficial	Minor beneficial	Minor beneficial	Minor beneficial
Noxious Weeds	Number of high priority/lower priority weed occurrences within 100 feet of routes available for public use	22 / 432	7 / 286	11 / 330	4 / 266	0 / 0	8 / 295
Recreation Resources	Total miles of existing NFTS roads / proposed route additions available for public motorized use	1,341 / 1,699 ^a	1,313 / 929	1,313/1,191	1,313 / 695	1,313 / 0	1,313 / 995
Soil Resource	Percent of routes available for motorized use on highly erosive soils	11%	3%	7%	2%	0%	4%
Terrestrial Wildlife	Northern Goshawk: Acres of suitable habitat within 30 ft of routes available for motorized use / Percent of total suitable habitat forestwide	4,966 / 1.2%	2,940 / 0.7%	3,438 / 0.8%	2,062 / 0.5%	0 / 0%	3,053 / 0.7%
	Sierra Nevada Bighorn Sheep: Miles of routes available for motorized use within critical habitat / Percent of critical habitat within 1,148 ft of routes	9.3 / 1.5%	0.45 / 0.3%	8.8 / 1.3%	0 / 0.1%	0 / 0%	4.3 / 0.8%
	American Marten: Acres of suitable habitat within 30 ft of routes available for motorized use / Percent of total suitable habitat forestwide	705 / 0.3%	412 / 0.2%	507 / 0.2%	277 / 0.2%	0 / 0%	426 / 0.2%
	Greater Sage Grouse: Acres of suitable habitat within 30 ft of routes available for motorized use / Percent of total suitable habitat forestwide	2,709 / 0.9%	1,586 / 0.5%	2,004 / 0.7%	1,330 / 0.4%	0 / 0%	1,781 / 0.6%

Resource Area	Indicator	Alt 1 ^a	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6
Visual Resources	Form, line, color and texture of routes available for motorized use	Long-term adverse effect	Beneficial effect	Beneficial effect	Beneficial effect	Beneficial effect	Beneficial effect
Water Resources	Miles of routes available for motorized use in riparian conservation areas	15.4 miles	8.03 miles	10.8 miles	5.47 miles	0 miles	8.5 miles
	Number of perennial stream crossings on routes available for motorized use	37	19	25	11	0	21
Motorized Mixed Use	Miles of low standard, high clearance roads designated for motorized mixed use (existing NFTS roads / routes added to the NFTS as roads)	No change to current use.	1,185 / 876	1,185 / 847	1,185 / 660	1,185 / 0	1,185 / 861
	Miles of NFTS passenger car roads designated for motorized mixed use	No change to current use.	33 miles	33 miles	33 miles	33 miles	33 miles
Sustainability of the transportation system	Total annual additional maintenance cost for proposed NFTS additions	N/A	\$875,300	\$1,086,475	\$666,125	\$0	\$941,950
	Total mitigation cost for added facilities	N/A	\$350,720	\$657,550	\$144,500	\$0	\$584,450

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

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

This Page Intentionally Left Blank