

EXECUTIVE SUMMARY

Introduction

The Eldorado National Forest (ENF) proposes to regulate unmanaged public wheeled motor vehicle use by allowing use on designated routes to be exhibited on the Motor Vehicle Use Map (MVUM) and prohibiting cross country travel. The designated system of routes will provide for diverse public wheeled motor vehicle opportunities, provide routes that enhance wheeled motor vehicle recreation, and provide access to dispersed recreation. In prohibiting wheeled motor vehicle traffic use off of designated routes, the Forest is minimizing damage to Forest resources, minimizing harassment of wildlife and limiting conflict between wheeled motor vehicle use and other recreation opportunities. Lastly, by issuing a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) on travel management, the Forest will comply with the United States District Court for the Eastern District of California final order (Case Civ-S-02-0325 Lkk/Jfm, August 16, 2005, Senior Judge Lawrence K. Karlton).

Background

Project Area

The project area includes all national forest system lands (NFS lands) and existing routes within the ENF, except for those NFS lands and routes included in the Rock Creek Recreational Trails Plan (ENF 1999). See the Project Area and Vicinity Map at end of this Executive Summary.

Eldorado National Forest Travel Management Direction

Previous Efforts

The Eldorado National Forest has been evaluating and managing our existing road and trail system for decades. In May 1977, the ENF finalized its first “Off-Road & Vehicle Travel Plan” to better manage the use of off-highway vehicles (OHVs). The Plan included five zones that authorized or restricted various levels of motor vehicle use, ranging from areas where motor vehicle use was prohibited to areas where motor vehicle use was restricted to designated routes, to areas where cross-country travel by motor vehicles was allowed. The plan also called for seasonal closures when soil moisture conditions warranted. In total, the plan included 1,580 miles of National Forest system (NFS) roads; 50 miles of NFS motorized trails, 409,000 acres of open area for cross-country motor vehicle travel and 215 miles of designated all-season routes that were open when wet soil conditions resulted in seasonal closure of cross-country travel.

In 1989, the ENF completed its Land and Resource Management Plan (LRMP), which directed the ENF to restrict OHV use to designated roads and trails in roaded natural and semi-primitive areas (ENF LRMP, Management Practice – 27, p. 4-83). Forest Plan implementation was to include the development of a new Forest OHV Plan by January 1, 1990. After January 1, 1990, only those routes designated in the new Forest OHV Plan would be open for OHV use, and the 1977 Off-Road & Vehicle Travel Plan would no longer be in place (ENF LRMP ROD p. 2; ENF LRMP p. 4-83). The LRMP also allocated certain management areas for non-motorized use and other management areas with other restrictions on motorized use.

The Sierra Nevada Forest Plan Amendment (SNFPA) Final Supplemental Environmental Impact Statement (FSEIS) Record of Decision (ROD) issued in January 2004, which amended the Forest Plans for the 11 national forests in the Sierra Nevada range, provided further standards and guidelines and management intent for OHVs primarily by prohibiting motor vehicle travel off of designated roads, trails, and limited OHV use areas (SNFPA ROD, January 2004, S&G #69, p. 59).

In 1990, the ENF finalized the “OHV and Trail Management Plan.” The Plan included four zones that authorized or restricted various levels of motor vehicle use, ranging from zones where motor vehicle use was prohibited to zones where motor vehicle use was restricted to designated routes. No areas were designated as open to cross-country motor vehicle travel. Additional travel restrictions included seasonal closure when soil moisture conditions reached a point where continued wheeled vehicle use was causing excessive rutting.

2005 U.S. District Court Order: In 1995, in a decision on an administrative appeal, the Chief of the Forest Service found that the ENF failed to perform site-specific analysis in their 1990 OHV Plan and required the ENF to perform the analysis within 18 months of the 1995 appeal decision. In February 2002, the Center for Sierra Nevada Conservation et al. (plaintiffs) filed suit against the Forest Service, alleging that the Forest Service violated NEPA and the APA by failing to conduct a forest-wide environmental review for the 1990 OHV Plan. Friends of the Rubicon et al. (defendant-intervenors) intervened as defendants and filed a cross complaint, alleging that the Forest Service was unreasonably limiting OHV and other recreational uses on the Forest, and violated NEPA by failing to conduct site-specific analyses when it designated OHV trails across the entire Forest in the 1990 OHV Plan.

On February 15, 2005, Judge Lawrence K. Karlton, United States District Court for the Eastern District of California, ruled that the Forest’s 1990 OHV Plan was in violation of NEPA. The judge’s order highlighted that “the Forest Service tiered the 1990 OHV Plan to the ENF LRMP’s EIS”; however, the “LRMP FEIS did not analyze the programmatic environmental impacts of a designated-route-only OHV trail system in the Eldorado, nor did it analyze the environmental impacts of any particular OHV routes in the Forest or of permitting travel off of designated routes.” Furthermore, the judge noted that “closures of OHV use areas and trail designations were allowed forest-wide, thereby triggering the duty to conduct specific analysis.” In summary, he ruled that the 1990 OHV Plan violated NEPA by tiering the Plan to the ENF’s LRMP EIS without conducting site-specific analyses.

As a result of this decision, the judge ordered the Forest Service on August 16, 2005, to: (1) withdraw the 1990 OHV Plan; (2) issue a Final EIS (FEIS) and ROD on a new ENF OHV Plan by December 31, 2007¹, to be consistent with regional guidelines for OHV route designation, with new national OHV regulations, and with the requirements of the NEPA and NFMA; and (3) restrict private-party use of wheeled motor vehicles across the ENF (except in the Rock Creek Recreational Trails area) to NFS roads open for public use, and NFS trails managed for OHV use and open for public use, until new management direction is adopted (Case Civ-S-02-0325 LKK/JFM). To implement this order, the Forest Service: (1) rescinded the 1990 OHV Plan on June 6, 2005; (2) issued an interim forest order on August 25, 2005, to restrict private-party use of wheeled motor vehicles to NFS roads and trails on the Forest, until new management direction is adopted; and (3) began the NEPA process for implementing the Forest Service National Travel Management Regulations (see page 1-4) on October 26, 2005.

¹ This date for completion was extended until April 2, 2008, in order to allow additional time for public comment and response to public comment.

Motor vehicle operation on National Forest System roads is subject to both federal and state laws and regulations. NFS roads managed for standard four wheel passenger vehicles (NFS ML-3 to -5 surfaced roads) meet the definition of a 'highway' under the California Vehicle Code (CVC) Division 16.5 and are subject to the Federal Highway Safety Act. The CVC prohibits non-highway-legal vehicles and unlicensed drivers from using roads that meet the definition of a highway. Existing NFS roads managed for standard four wheel passenger vehicles (NFS ML-3 to -5 surfaced roads) are already regulated by state and federal law. Therefore, motorized use of such roads will not be reconsidered in this proposal.

NFS roads maintained for high clearance vehicles (NFS ML-2) are generally not suitable for standard four wheel passenger vehicles. As such, they are not subject to the Federal Highway Safety Act, and are considered roughly graded roads for purposes of the CVC Division 16.5, and are currently open to all vehicle classes including off highway vehicles (OHVs).

Based on the ENF Forest Supervisor's interpretation of the February 15, 2005, Court Order, this proposal will reconsider whether motorized use should be allowed to continue on NFS roads maintained for high clearance vehicles (NFS ML-2) and NFS trails managed for OHV use and open for public use. The proposal will also consider changes to season of use and vehicle class on existing NFS roads and trails, and the addition of unauthorized routes to the ENF NFS.

Forest Service National Travel Management Regulations: The issue of increasing motor vehicle use on public lands, and their associated resource impact concerns and public conflicts, has existed since the issuance of Executive Order 11644 in 1972, which stated that: "The widespread use of such vehicles on the public lands – often for legitimate purposes but also in frequent conflict with wise land and resource management practices, environmental values, and other types of recreation activity – has demonstrated the need for a unified Federal policy toward the use of such vehicles on the public lands." Former Chief of the Forest Service, Dale Bosworth, also recognized unmanaged recreation, especially OHV use, as one of "Four Key Threats Facing the Nation's Forest and Grasslands" (USDA FS, June 2004). This recognition, as well as past intentions to better manage motor vehicle use on public land, led to the development of a Memorandum of Intent (MOI) between the USDA Forest Service and the Off-Highway Motor Vehicle Recreation Commission, and the Division of Off-Highway Motor Vehicle Recreation of the Department of Parks and Recreation for the State of California that was signed on August 11, 2003. This was followed by the National Travel Management Rule that was released by the USDA Forest Service on November 9, 2005 (Federal Register, Vol. 70, pgs. 68264-68291).

The new travel management rule revised regulations at 36 CFR parts 212, 251, 261, and 295 to require designation of roads, trails, and areas for motor vehicle use on all national forests. The final rule provides a consistent framework for local units to designate roads, trails, and areas open to motor vehicle use, by class of vehicle, and if appropriate, by time of year. The rule also allows the responsible official to include in the designation limited use of motor vehicles within a specified distance of certain designated routes, and if appropriate, within specified time periods, solely for the purposes of dispersed camping or retrieval of downed big game animals by an individual who has legally taken the animal. The rule removed the need for developing an OHV plan, and instead directed that designated routes will be identified on a Motor Vehicle Use Map (MVUM) and prohibits use of motor vehicles inconsistent with those designations upon completion and public release of the MVUM. The final rule provides better opportunities for sustainable motorized recreation, better protection of the environment, increased public safety, and ample high-quality access to NFS lands.

Existing Situation:

In addition to the efforts described above, recommendations and decisions regarding management of the Forest road and trail system have been made in vegetation management projects, watershed

restoration projects, fuel treatment projects; trail construction projects, trail management decisions, landscape and watershed analyses and the Roads Analysis Process (RAP). These previous efforts have resulted in 154 miles of NFS ML-2 roads being closed. An additional 4.5 miles of roads have been decommissioned over the last five years. Over the last five years, 354 miles of ML-2 roads have been maintained or reconstructed and 1 mile of new ML-2 road has been constructed. All of these previous decisions on road construction, road reconstruction, road closures, and road decommissioning have undergone extensive public involvement through the NEPA process. The Travel Management regulations provide that these decisions may be incorporated and do not require that these past decisions be reconsidered (36 CFR 212.50(b)). Re-opening these previous decisions at this time would unduly burden the current Travel Management Project and delay its objective of reducing environmental impacts associated with cross country travel and use of some of the unauthorized routes. Therefore, these previous decisions will be incorporated into all alternatives.

There are 722 miles of NFS ML-1 roads on the ENF. These roads were designed to be intermittent service roads and were intended to be closed to public wheeled motor vehicle use, although a majority of them are no longer physically closed. 240 miles of the existing ML-1 roads are physically closed at this time.

As a result of these previous decisions, there are currently 2,342 miles of NFS roads and NFS motorized trails on NFS lands that have motorized use². There are an additional 526 miles of unauthorized routes where use is continuing to occur. These unauthorized routes were generally developed without environmental analysis or public involvement, and do not have the same status as NFS roads and NFS trails included in the Forest transportation system. Some of the unauthorized routes are well-sited, provide excellent opportunities for outdoor recreation by motorized and non-motorized users, and would enhance the National Forest system of designated roads and trails. Other unauthorized routes are poorly located and cause unacceptable impacts.

Purpose and Need for Action

This Travel Management project is intended to stop resource damage from use of inappropriate routes and cross country motor vehicle travel and redirect this use to sustainable NFS roads and trails.

The following needs have been identified for this proposal:

1. There is a need for regulation of unmanaged public wheeled motor vehicle travel. Currently, public wheeled motor vehicle travel is not prohibited off designated routes. In their enjoyment of the National Forest, motor vehicle users have created numerous unauthorized routes. The number of such routes continues to grow each year, with many of these routes having environmental impacts and safety concerns that have not been addressed. The Travel Management Rule, 36 CFR Part 212, provides policy for ending this trend of unauthorized route proliferation and managing the Forest transportation system in a sustainable manner through designation of motorized NFS roads, trails, and areas, and the prohibition of cross-country travel. Furthermore, unmanaged public wheeled motor vehicle travel has caused increased conflict between motorized and non-motorized uses; complaints about noise,

² The total miles includes ML-2 roads through ML-5 roads currently open, plus ML-1 roads not physically closed and NFS trails managed for motorized use. The total does not include miles of NFS routes open within the Rock Creek Recreational Trails area, nor does it include State, County, or private roads on NFS lands within the ENF.

trespass, dust, and vandalism from adjacent landowners; and areas of degraded soil, water, vegetation, wildlife, and cultural resources.

2. There is a need for compliance with the United States District Court for the Eastern District of California final order, as modified (Case Civ-S-02-0325 Lkk/Jfm, August 16, 2005, Senior Judge Lawrence K. Karlton).
 - Issue a FEIS and ROD by April 2, 2008, to be consistent with regional guidelines for OHV route designation, with new national OHV regulations, and with requirements of the NEPA and NFMA. The National Travel Management Rule of November 9, 2005 modified national direction, in that a OHV plan is not needed for route designation, but rather that motorized routes and associated restrictions are designated on the Motor Vehicle Use Map (MVUM).
 - Reconsider whether motorized use should be allowed to continue on NFS roads maintained for high clearance vehicles (NFS ML-2) and NFS trails managed for OHV use and open for public use.
3. There is a need for limited changes to the ENF NFS roads and trails to:
 - Provide wheeled motorized 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 are known to have been historically 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 NFS road or NFS motorized trail. Some dispersed recreation activities are dependent on foot or horseback access, and some are dependent on motor vehicle access. Those activities accessed by motor vehicles consist of short spurs that have been created and maintained primarily by the passage of motorized vehicles. Many such 'user-created' routes are not currently part of the National Forest Transportation System (NFTS). Without adding them to the NFTS, the regulatory changes noted above would make continued use of such routes illegal.
 - Provide a diversity of wheeled motorized recreation opportunities (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)). Without additions to the NFTS, implementation of the Travel Management Rule will severely limit motorized recreation opportunities relative to current levels.

This action must comply with the ENF LRMP, as amended, and the National Travel Management Rule of 2005. In meeting these needs, any changes to the NFS roads and trails should also achieve the following purposes:

- Prohibit motor vehicle travel off designated roads and trails;
- Provide motorized routes that create loops and thru routes to enhance public wheeled motor vehicle recreational opportunities.
- Consider effects on NFS natural and cultural resources; public safety; provision of recreation opportunities; access needs; conflicts among uses of NFS lands; the need for maintenance and administration of roads, trails, and areas that would arise if the uses under consideration are designated; and the availability of resources for maintenance and administration;

- Minimize damage to soil, watershed, vegetation, and other forest resources;
- Minimize harassment of wildlife and significant disruption of wildlife habitats;
- Minimize conflicts between public motor vehicle use and existing or proposed recreational uses of NFS lands or neighboring federal lands;
- Minimize conflicts among different classes of motor vehicle uses of NFS lands or neighboring federal lands;
- Consider compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors;
- Consider the speed, volume, composition, and distribution of traffic on roads;
- Consider compatibility of vehicle class with road geometry and road surfacing;
- Recognize valid existing rights of access and the rights of use of NFS roads and trails under 36 CFR part 212.6(b); and
- Do not allow use on NFS roads, trails, and areas on NFS lands in wilderness areas or primitive areas for motor vehicle use, unless, in the case of wilderness areas, motor vehicle use is authorized by applicable enabling legislation for those areas.

Public Involvement

The Notice of Intent (NOI) was published in the Federal Register on October 26, 2005. The NOI asked for public comment on the proposal from October 26, 2005, to December 1, 2005. A brief description of the project was included in the ENF Schedule of Proposed Actions (SOPA) in July 2005. On October 25, 2005, approximately 300 letters were mailed to adjacent property owners; potentially affected business; federal, state, and local agencies; special interest groups; and other interested parties. The letters contained notice that the Forest Service was proposing to prohibit motorized cross country travel and restrict motorized travel to designated roads and trails open to public wheeled motor vehicle use. Individuals and groups were requested to submit information and to identify issues they might have. The mailing list is included in the project record.

On December 14, 2005, a public meeting was held in Placerville, CA, to explain how the public comments were used to develop significant issues that would eventually be used to develop alternatives to the agency proposed action, to present a draft list of significant issues, and to solicit public input on the draft list to ensure that the list adequately captured public concern. Approximately 110 people attended this meeting.

On June 6 and 8, public open houses were held in Placerville and Jackson, CA, respectively, to present a preliminary range of alternatives to the agency proposed action, explain how they were developed, and answer questions that the public had about their development. After the presentation, the public was able to view the preliminary alternative maps and to discuss their concerns with various Forest staff members.

In addition to these efforts, several communication methods have been used continuously throughout the travel management process to disseminate information, address public concerns and questions, and solicit public input. Since August 16, 2005, the interdisciplinary team leader has held noontime bi-weekly conference call briefings with the public to update the public on project status and other information, and to answer at least one question per conference call attendee from the public. The Forest also has a project email address and a project hotline that the public can use to express concerns and ask questions, and a project webpage that posts maps,

information, and other project documents. Numerous news releases, project newsletters, and other information have been sent to the project email list and mailing list throughout the process to provide information, clarify public questions, and help the public participate more effectively.

For a complete overview of the public involvement efforts for this project, see the Eldorado National Forest website: <http://www.fs.fed.us/r5/eldorado/projects/route/index.shtml>.

The Notice of Availability of the Draft Environmental Impact Statement (DEIS) was published in the Federal Register on July 20, 2007 and copies of the DEIS were mailed to over 510 individuals, organizations, tribes, and government agencies. The comment period was extended an additional 45 days based on request from the public for additional time to review the DEIS. The comment period ended on October 22, 2007. Over 6,000 individuals responded during the comment period. Appendix C contains the summary of comments and responses to comments. Six public meetings were held between July 24 and August 14, 2007 in Placerville, Jackson, Markleeville, Folsom and Concord California to discuss the DEIS. A total of over 900 individuals attended the various public meetings. In addition to the public meetings, the ENF website included a section devoted to information about the DEIS, links to the DEIS, and instructions on how to comment on the DEIS. An information handout was made available to the public which also described the purpose of the project, the availability of the DEIS, and information on how to comment on the DEIS.

For a complete overview of the public involvement efforts for this project, see Appendix A.

Issues

The Forest Service separated the issues brought forward by the public into three groups: Significant Issues, Non-significant Issues, and Non-issues. The Council on Environmental Quality (CEQ) NEPA regulations explain this delineation in Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental reviews (Sec. 1506.3)..." A list of all issues collected during scoping and their classification into one of the three categories described can be found in the project record.

Significant issues are points of disagreement, debate, or dispute about the proposed action based on undesirable effects identified through scoping and are used to formulate alternatives to the proposed action, prescribe mitigation, or monitoring measures. They may also be used for analyzing environmental effects. Non-significant issues are defined as those issues beyond the scope of the proposed action; irrelevant to the decision to be made; already decided by law, regulation, or policy; and/or conjectural in nature or not supported by scientific evidence. Non-issues are general comments or concerns received through scoping that are not related to the proposed action's effects, and, therefore, cannot be resolved through an alternative or mitigation. Although Non-significant Issues and Non-issues were not used to formulate alternatives nor prescribe mitigation or monitoring measures, they were reviewed by the route designation IDT.

The following issues were determined to be significant and within the scope of the project decision as described in 40 CFR 1502.2. The elements within these significant issues further define the scope of the significant issues and ways to compare them across alternatives and measure their effects. Following the list of significant issues and their associated elements, specific indicator measures are identified in Table 1-2 below.

Significant Issue Statement 1: A reduction in motorized routes, changes in class of vehicles allowed, prohibition on cross-country travel, and seasonal closure during wet weather periods, will adversely effect forest visitors and adjacent landowners and will:

- adversely affect visitors with disabilities by limiting easy access to general areas and dispersed camping sites;
- adversely affect riders crossing forest boundaries where route designations are inconsistent on either forest;
- displace the use to private lands and increase impacts to private property;
- limit camping opportunities;
- limit OHV recreation opportunities and public access; limit destination travel and driving for pleasure; and limit access for fishing, hunting, wildlife photography, hiking, biking, equestrian use, camping, and other recreational activities and to the Plasses Resort Cabin;
- limit parking for recreational purposes; and
- unreasonably restricts motor vehicle recreation opportunities.

Significant Issue Statement 2: The proposed level of motorized use will adversely affect forest resources, adjacent landowners, and non-motorized recreation opportunities and will:

- continue or increase route proliferation;
- be difficult to enforce;
- impact and displace non-motorized recreation use, create user conflicts, and impact quiet recreation experiences;
- continue to adversely impact private property owners through increased trespass, vandalism, dust, noise, resource damage, and danger to human life from motor vehicle traffic;
- impact forest resources;
- increase wildland fire risks; and
- impact grazing allotment capabilities and livestock.

DEIS Public Comment:

Following the 90-day comment period for the DEIS, the comments received were assessed and considered, and the following actions were taken: Alternative B was modified, factual corrections were made to the document, and the environmental consequences were supplemented, consistent with the modifications.

During the 90-day comment period members of the public expressed a variety of concerns. The following discussion documents some of the concerns expressed by the public and the responses to those concerns. For a detailed list of comments, commenters, and responses see Appendix C.

Many members of the public made it clear that access to the Forest is important.

- “Closing access to OHV areas means many people will never see anything past the side of a paved road.”
- “Please don’t close the roads to OHV’s. We only have a few places left to ride and we really value this forest as an off road haven.”
- “I have been hunting and fishing in these mountains all my life and this program would severely limit my ability to enjoy our forest.”

Other members of the public made it clear that limiting access to motor vehicles was important for protection of sensitive resources and the quality of “quiet” recreation opportunities.

- “I feel ... that motorized vehicles ... disrupt and displace other non-motorized users and wildlife to a great degree.”
- “I am an avid bicyclist and hiker/back-packer and I feel very strongly about maintaining a quiet, clean atmosphere while I am enjoying the outdoors.”
- “I don't support motor vehicle routes in the proposed Caples Wilderness area, or other areas where roads don't exist.”

Response:

Based these and other similar comments, Alternative B was modified to provide greater access for all classes of vehicles, comply with LRMP Standards and Guidelines, display rationale for eliminating use on NFS ML-2 roads, minimize impacts to meadows and certain sensitive wildlife species, and reduce impacts to stream and riparian habitat. This alternative is referred to as Modified B in the remainder of the FEIS.

Other comments that were received and taken into consideration when modifying Alternative B include:

- Assure selected alternative minimizes impacts as called for in EO 11644
- Consider impacts from motor vehicle use on quiet recreation opportunities
- Consider impacts to wildlife, water quality, air quality, and other resources
- Consider potential impacts to roadless areas or loss of roadless areas
- Consider using volunteers to accomplish route maintenance and public information/education
- Desire to continue to travel on unauthorized routes previously used
- Will the Forest Service be able to implement the decision; is there funding for implementation, road and trail maintenance, enforcement, etc.
- Seasonal closure is overly restrictive
- Seasonal closure is not protective enough
- Parking limits are not safe or reasonable

Additional discussion on the reason for modifying Alternative B is provided in Chapter 2 under the description of Modified B.

- Consider travel management options other than closure.

Response:

This project is designed to establish a “backbone system” of designated routes that complies with the Forest’s Standards and Guidelines. It is the intent of the Forest Supervisor to maintain the system of roads and trails open for use so that they can continue to be used. However, it is recognized that this travel management system is dynamic and allows for a yearly evaluation. Based on trail monitoring, public input, and budget constraints, new routes may be added to the system, existing routes may be removed from the system or the system may remain unchanged.

As described in the “Implementation Strategy” section of Chapter 2 of the FEIS, the Forest intends to work with the OHV community and others in various ways to maintain routes and to provide quality recreation opportunities. The Forest will continue to work with volunteers on various trail maintenance, signing, and information-sharing projects, and will work with partners to pursue grants and other funding sources to implement needed projects.

- Consider or analyze for new routes to meet growing demand for access.

Response:

In order to keep the scope of the project manageable and to be able to comply with the Court mandated timeline, the Forest Supervisor at the start of the project, John Berry, decided that construction of new routes would be outside the scope of this project. The National Travel Management regulations at 36 CFR 212.54 provide for revision of designations as needed to meet changing conditions, including the potential to add new routes following public involvement and site specific environmental analysis.

- Projected increased use in the future and reduced travel opportunities may increase impacts to the remaining routes.

Response:

We cannot guarantee that impacts to trails will not increase as a result of a reduction in travel opportunities. However, reducing the total number of miles of routes does not necessarily lead to increased resource damage. Trails and roads in sensitive areas are more likely to sustain damage, even at lower levels of use, whereas trails and roads that are located in stable areas or otherwise avoid sensitive areas (archaeological sites, sensitive plant locations, etc.) can accommodate high levels of use without leading to resource damage. It is not just a matter of concentration of use, but also the location of routes, for both providing a good recreation opportunity and avoiding resource impacts.

This project is designed to establish a “backbone system” of designated routes that complies with the Forest’s Standards and Guidelines. It is the intent of the Forest Supervisor to maintain the system of roads and trails open for use so that they can continue to be used. However, it is recognized that this travel management system is dynamic and allows for a yearly evaluation.

The Forest Service will monitor route conditions and will continue to perform necessary maintenance. The Forest Service intends to expand working with volunteers to complete needed route maintenance to avoid damage to routes. As a part of route designation, the Forest Service will release a motor vehicle use map (MVUM) yearly. Based on trail monitoring, public input, and budget constraints, new routes may be added to the system, existing routes may be removed from the system or the system may remain unchanged.

- Visitors with disabilities will be affected by a reduction in available routes.

Response:

The Americans with Disabilities Act (ADA) was considered in the development of the alternatives and throughout the analysis. A wheelchair that is designed for use by a mobility impaired person for locomotion and is suitable for use in an indoor pedestrian area is permitted anywhere foot travel is permitted. However, restrictions on motor vehicles, including 4X4s, ATVs and motorcycles, apply to all people, including those with disabilities.

This project is designed to provide reasonable access for public wheeled motor vehicles and would apply to all Forest visitors. This access will be available to all visitors. As stated in

the preamble to the national Travel Management regulations, there is no requirement to allow people with disabilities to use motor vehicles on road or trails otherwise closed to motor vehicles since such an exemption could fundamentally change the travel management program (Fed Reg V.70, No. 216, p 68285).

In addition to those individuals with disabilities as defined in the ADA, there are many forest visitors with physical limitations that restrict their ability to access the Forest other than by motorized means. The effects analysis recognizes this fact and describes the impacts in relation to the reduction in routes leading to dispersed recreation sites. The effects to these individuals will depend in part on the activities those individuals participate in and their mode of transportation.

- Eliminating use on routes through private land where there is no public right-of-way will eliminate the opportunity for the public to exercise prescriptive rights.

Response:

Prescriptive rights refer to public rights acquired over private lands through use, without the consent of the property owner. Generally federal agencies, including the Forest Service, do not pursue prescriptive rights but rather work with private landowners to obtain a right-of-way or easement, or in unique circumstances, exercise eminent domain. The Forest has worked with private landowners to obtain easements or rights of way across private land, and will continue to do so, within the limits of available funding and resources.

- Dispersed camping is unduly limited.

Response:

Dispersed camping is not part of this decision. Limiting vehicles to one vehicle length from the edge of the route provides a guideline for differentiating between parking on the system and driving cross-country. The distance proposed in this analysis is the distance currently proposed nationally by the Forest Service. . Following the release of the FEIS and Record of Decision, analysis for designating public motor vehicle use of dispersed camping areas will be conducted.

- Ability to fight fires will be reduced if roads are not kept open to vehicle travel. Eliminating routes reduces the ability for routes to serve as fuelbreaks.

Response:

Administrative and emergency use of roads or trails is outside of the scope of this analysis. The decision to be made is whether to allow public wheeled motor vehicle use. The need for roads or trails for fighting fires or other administrative or emergency purposes will be considered in any site specific decisions to physically obliterate or decommission roads or trails. This need is commonly a part of fuels reduction projects and vegetation management projects. Annual road maintenance needs also consider the need to provide for administrative access for fire fighting and other purposes. Fire fighting staffing levels and the location of fire fighting resources are based, in part, on consideration of the response time to potential fires. This analysis includes consideration of the main transportation system on the Forest. Additional information is available in Appendix C, Response to Public Comments.

Alternatives Considered in Detail

The six alternatives developed, A – E, consider a full range of reasonable management options, including the No Action and Proposed Action Alternatives. Alternative B was modified following the release of the DEIS, based on the review of the comments received during the 90 day comment period. This alternative is referred to as Modified B. Existing NFS roads managed for standard four wheel passenger vehicles (NFS ML-3 to -5 surfaced roads) are already open to motorized use and will not be reconsidered in this proposal. The miles of these roads are not included in the total miles shown for each alternative below. There are an additional 334 miles of State, county and private roads on the ENF and 311 miles of roads and trails within the Rock Creek Recreational Trails area.

In **Alternative A, the No-Action Alternative**, no designation would take place and use would continue on 2,188 miles of existing routes. Cross-country travel would be allowed and no seasonal closure would be instituted. Areas for parking/dispersed camping would continue to be used by public wheeled motor vehicles. Also, over-the-snow travel with public wheeled motor vehicles would not be regulated.

In **Alternative B**, 1,120 miles of ML-2 roads and 242 miles of trails would allow for public wheeled motor vehicle use, with cross-country travel prohibited. Limited non-significant Forest Plan amendments would be needed for specific route segments that pass through meadows and a seasonal closure would be implemented on designated system trails and ML-2 roads from Jan. 1 through March 31. Wheeled motor vehicle over-the-snow travel would be allowed only on ML-3, -4, and -5 roads, except for some roads to be closed. Parking and dispersed camping for wheeled motor vehicles would be limited to within one vehicle length from the edge of the route surface.

In **Modified B, the Preferred Alternative**, 1,002 miles of ML-2 roads and 210 miles of trails would allow for public wheeled motor vehicle use, with cross-country travel prohibited. Limited non-significant Forest Plan amendments would be needed for specific route segments that pass through meadows and a seasonal closure would be implemented on designated system trails and ML-2 roads from Jan. 1 through March 31. Wheeled motor vehicle over-the-snow travel would be allowed only on ML-3, -4, and -5 roads, except for some roads to be closed. Parking and dispersed camping for wheeled motor vehicles would be limited to within one vehicle length from the edge of the route surface.

In **Alternative C**, the Original Proposed Action, 1,068 miles of roads and 177 miles of trails would allow for public wheeled motor vehicle use, with cross-country travel prohibited. Limited non-significant Forest Plan amendments would be required for specific route segments that pass through meadows and a seasonal closure would be implemented on designated system trails and ML-2 roads from November 1 through April 30. If it is determined by the Forest Supervisor during the months of November, December, or April, based on soil moisture evaluations, rainfall, road or trail conditions, and weather forecasts, that during this period areas are suitable for use, the Forest Supervisor has the authority to open those areas for a specified amount of time. Wheeled motor vehicle over-the-snow travel would be allowed on ML-3, -4, and -5 roads, except for some roads to be closed. Parking and dispersed camping would be limited to within one vehicle length from the edge of the route surface.

In **Alternative D**, 847 miles of roads and 216 miles of trails would allow for public wheeled motor vehicle use, with cross-country travel prohibited. Limited non-significant Forest Plan amendments would be required for specific route segments that pass through meadows and seasonal closure would be implemented on designated system trails and ML-2 roads from December 1 through April 30. If it is determined by the Forest Supervisor during the months of December or April, based on soil moisture evaluations, rainfall, road or trail conditions, and

weather forecasts, that during this period areas are suitable for use, the Forest Supervisor has the authority to open those areas for a specified amount of time. Wheeled motor vehicle over-the-snow travel would be allowed on all designated routes with 24 inches of snow or more and no ground contact. Wheeled motor vehicles would be limited to within one vehicle length from the edge of the route surface for parking and dispersed camping.

In **Alternative E**, 714 miles of roads and 131 miles of trails would allow for public wheeled motor vehicle use, with cross-country travel prohibited. No Forest Plan amendments would be required since no route segments would pass through meadows and a seasonal closure would be implemented on designated system trails and ML-2 roads from January 1 through March 31. Wheeled motor vehicle over-the-snow travel would be allowed only on ML-3, -4, and -5 roads, except for some roads to be closed. For parking and dispersed camping, wheeled motor vehicles would be limited to within one vehicle length from the edge of the route surface.

Monitoring Strategy

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 unacceptable resource damage is occurring, steps to prevent such damage must be taken. If the mitigations are not effective or are not possible, road or trail closure may be required (may require additional NEPA analysis).

It is also important to develop a monitoring strategy that is: (1) helpful in making effective management decisions in the future, and (2) feasible to implement. Once implementation begins, more effective monitoring elements may be identified and implemented. The Implementation Strategy described below calls for a number of measures that may lead to future monitoring or that may incorporate assessments that are now occurring.

Implementation Monitoring

Stream survey monitoring: Within three years of implementation, conduct field monitoring of all streams that have been determined to be at a high risk of adverse effects to aquatic habitat from the continued use of public wheeled motor vehicles on unpaved roads. A list of these streams and affected routes can be found in the Riparian Conservation Objectives analysis within the project record. This monitoring will determine where, and to what degree, additional measures may be needed to minimize adverse impacts to streams.

Meadow monitoring: Within two years of implementation, commence field monitoring of meadows greater than one acre in size that have a road or trail within the meadow or that bisects the meadow. Public wheeled motor vehicle use through meadows can impair hydrologic function. If adverse impacts to hydrologic function are detected, appropriate measures (including closure) will be employed to restore proper functioning condition.

Plant monitoring: Monitoring will occur in areas of the Forest where concentrated numbers of sensitive plant sites have been identified along open routes (see Biological Evaluation in the Project Record). These areas have the greatest potential for adverse effects from the continued use of public wheeled motor vehicles. Sites monitored may vary year to year. If impacts to a sensitive plant site are documented, the site will be signed to indicate the presence of a sensitive resource. This signage, accompanied by an increase in surveillance, may eliminate the inappropriate motorized vehicle use. If impacts continue, further actions to dissuade motorists from driving off-road will be implemented including installation of barriers along the boundary of the habitat being impacted.

Heritage Monitoring: The Motorized Recreation Programmatic Agreement with the State Historic Preservation Office (SHPO) outlines future work in support of the selected alternative that will include the development of a monitoring plan for at-risk historic sites in order to measure effects. This plan will also include monitoring in areas within the route system with high concentrated use and high site density or high value sites, such as the Meiss and Caples Creek areas located on the Placerville Ranger District.

Road and Trail Condition Monitoring: Monitor the condition of recreation roads and trails utilizing the OHV Trail Monitoring form referred to as the GYR Form, following the guidance in the Training Guide developed by soil scientist Roger Poff (Poff, 2004). Roads may be monitored using the deferred maintenance condition survey protocol. A sampling of the routes should be completed each year; roads will be monitored on a 5 year cycle. Both ENF employees and the public will use this monitoring form to document road and trail conditions, based on field observations and measurements. Information derived from this monitoring is used to update the maintenance schedule and assist in prioritizing maintenance needs. Initially, the monitoring will focus on the unauthorized routes that have been added to the National Forest transportation system.

Implementation Strategy

The Forest Service also developed the following management strategies to be used as part of all of the action alternatives to improve implementation of the designated route system:

- Produce a primary motor vehicle use map (MVUM) following national Forest Service standards that indicates which routes are designated open to the public by type of vehicle per route and season open for use. This map will be made available to the public free-of-charge. There may be some changes as implementation occurs on the ground. Designations, use restrictions, and operating conditions will be revised in future decisions as needed to meet changing conditions or management strategies.
- Produce a subsequent local travel map following production of the primary MVUM that indicates which routes are designated open to the public by type of vehicle per route and season open for use, and identifies other important features on the Forest that will help the public navigate the system.
- Provide a Forest brochure in conjunction with the public MVUM with clear and simple explanation of the rules and restrictions, and examples of signs on the ground.
- Provide clear, consistent, and adequate signage that identifies routes designated open by type of vehicle per route and season open for use corresponding to the public MVUM and local travel map. Signing of dead-end routes leading to/stopping at rivers, streams, meadows, and other sensitive resources will be a priority to help protect resources from public wheeled motor vehicle damage.
- Begin working with a collaborative group of public stakeholders within six months of the final decision. This group would work together with the Forest Service to implement the designated system, including:
 - Development of a public education strategy that includes public meetings, workshops, and other forums to educate forest users about the designated route system, to assist the public with reading the public MVUM and local travel map, to educate forest users about the potentially negative effects of their activities, and to discuss how the public can help with implementation of the designated system by volunteering for maintenance activities, enforcement of the rules, and education of other forest users. This strategy would be completed within one year after the collaborative group is established.

- Development of a public volunteer strategy to identify opportunities for the public to help implement, enforce, maintain, and fund the designated route system. This strategy would be completed within one year after the collaborative group is established.
- Development of a process for considering the addition of routes or changes in management of the designated system. This strategy would be completed within one year after the collaborative group is established.
- Development of a process for considering restoring, blocking, or decommissioning routes not designated for public motor vehicle use. This strategy would be completed within one year after the collaborative group is established.
- Development of a strategy for designating areas for public motor vehicle use of dispersed camping areas. This strategy would be completed within one year after the collaborative group is established.

Create record forms that can be used to document observed use or signs of use on routes not designated for public wheeled motor vehicle use. ENF personnel will use these forms to document the elements described, based on field observations. These forms will also be made available to the public at administrative offices and on the internet so that the public can document the elements described, based on field observations. This information can be combined with law enforcement information (e.g. location of warnings and citations) to develop a more effective law enforcement and restoration strategy that will help better implement the designated system.

Comparison of Alternatives _____

This section provides a comparison of the alternatives, based on the proposed activities in each alternative, how each alternative meets the Purpose and Need, how the alternatives respond to the significant issues, and the effects of implementing each alternative as represented by different resources.

Comparison Table

Table 2-16 displays the proposed activities by alternative (mileages do not include ML-3, -4, and -5 roads).

Table 2-16. Alternatives summary

Alternative A (No-Action)	<ul style="list-style-type: none"> • No prohibition on cross-country travel. Use of existing routes would continue. • No change to NFTS • No seasonal closure. • No regulation for over-the-snow travel with public wheeled motor vehicles. • Areas for parking/dispersed camping will continue to be used by public wheeled motor vehicles.
Alternative B	<ul style="list-style-type: none"> • Allow use on 1,120 miles of ML-2 roads and 242 miles of trails for public wheeled motor vehicles. This total includes the addition of 46 miles of unauthorized routes to the NF transportation system. • Public wheeled motor vehicle cross-country travel prohibited. • Limited non-significant Forest Plan amendments for specific route segments. • Seasonal closure on designated system trails and ML-2 roads from Jan. 1 through March 31. • Wheeled motor vehicle over-the-snow travel allowed on ML-3, -4, and -5 roads only with 12 inches of snow or more and no ground contact. Additional prohibitions on wheeled over-the-snow travel on specific route segments. • Wheeled motor vehicles limited to one vehicle length from the edge of the route surface for parking and dispersed camping.
Modified B (Preferred Alternative)	<ul style="list-style-type: none"> • Allow use on 1,002 miles of ML-2 roads and 210 miles of trails for public wheeled motor vehicles. This total includes the addition of 23 miles of unauthorized routes to the NF transportation system. • Public wheeled motor vehicle cross-country travel prohibited. • Limited non-significant Forest Plan amendments for specific route segments. • Seasonal closure on designated system trails and ML-2 roads from Jan. 1 through March 31. • Prohibitions on wheeled over-the-snow travel on specific route segments. • Wheeled motor vehicles limited to one vehicle length from the edge of the route surface for parking and dispersed camping.
Alternative C (Original Proposed Action)	<ul style="list-style-type: none"> • Allow use on 1,068 miles of ML-2 roads and 177 miles of trails for public wheeled motor vehicles. This total includes the addition of 20 miles of unauthorized routes to the NF transportation system. • Public wheeled motor vehicle cross-country travel prohibited. • Limited non-significant Forest Plan amendments for specific route segments. • Seasonal closure on designated system trails and ML-2 roads from Nov. 1 through April 30. • Wheeled motor vehicle over-the-snow travel allowed on ML-3, -4, and -5 roads only with 12 inches of snow or more and no ground contact. Additional prohibitions on wheeled over-the-snow travel on specific route segments. • Wheeled motor vehicles limited to one vehicle length from the edge of the route surface for parking and dispersed camping.

Alternative D	<ul style="list-style-type: none"> • Allow use on 847 miles of ML-2 roads and 216 miles of trails for public wheeled motor vehicles. This total includes the addition of 34 miles of unauthorized routes to the NF transportation system. • Public wheeled motor vehicle cross-country travel prohibited. • Limited non-significant Forest Plan amendments for specific route segments. • Seasonal closure on designated system trails and ML-2 roads from Dec. 1 through April 30. • Wheeled motor vehicle over-the-snow travel allowed on all designated routes with 24 inches of snow or more and no ground contact. Additional prohibitions on wheeled over-the-snow travel on specific route segments. • Wheeled motor vehicles limited to one vehicle length from the edge of the route surface for parking and dispersed camping.
Alternative E	<ul style="list-style-type: none"> • Allow use on 714 miles of ML-2 roads and 131 miles of trails for public wheeled motor vehicles. This total includes the addition of 21 miles of unauthorized routes to the NF transportation system. • Public wheeled motor vehicle cross-country travel prohibited. • No Forest Plan amendments. • Seasonal closure on designated system trails and ML-2 roads from Jan. 1 through March 31. • Wheeled motor vehicle over-the-snow travel allowed on ML-3, -4, and -5 roads only with 12 inches of snow or more and no ground contact. Additional prohibitions on wheeled over-the-snow travel on specific route segments. • Wheeled motor vehicles limited to one vehicle length from the edge of the route surface for parking and dispersed camping.

Mileage by Alternative

Table 2-17 compares the alternatives based on the number of miles open for public wheeled motor vehicle use, as measured by the classification of roads or trails. In the action alternatives, existing NFS ML-1 roads proposed to be open to public motor vehicle use would be converted to ML-2 roads or NFS trails, and those miles are included in those classifications. Similarly, the miles of unauthorized routes proposed to be open for public motor vehicle use in the action alternatives will be managed as NFS roads or trails and are shown in those classifications. Some existing ML-1 or ML-2 roads are proposed to be managed as NFS trails, and the miles are shown as such.

Table 2-17. Mileage open for public wheeled motor vehicle use by Alternative and route classification

Designation	Alternatives						
	Alternative A		Alternative B	Modified B	Alternative C	Alternative D	Alternative E
	Routes with Existing Use	Routes Open by Policy					
NFS ML-1 Road: Intermittent Road Not Physically Closed	482	0	0	0	0	0	0
NFS ML-2 Road: Open to All Highway and Non-Highway Legal Vehicles	1,022	1,022	807	913	580	426	356
NFS ML-2 Road: Open to Highway Legal Vehicles Only	8	8	313	89	488	421	358
NFS 4WD Trail: Open to High Clearance Vehicles	10	10	60	58	57	56	14
NFS Trail: Open to ATVs and Motorcycles Only	24	24	49	37	31	47	34
NFS Trail: Open to Motorcycles Only	116	116	133	115	89	113	83
Miles of unauthorized routes where use may continue	526	0	0	0	0	0	0
Total Miles	2,188	1,180	1,362	1,212	1,245	1,063	845
NFS ML-3+ Road: Existing Mixed Use	5	5	5	5	5	5	5
NFS ML-3+ Road: Open to Highway Legal Vehicles Only	675	675	480	630	480	480	480
Total Available for Public Motorized Use	2,868	1,860	1,847	1,847	1,730	1,548	1,330
NFS ML -1 Road: Intermittent Road <i>Closed to Motor Vehicles</i>	240		558	611	581	643	723

The total number of acres where cross country motor vehicle travel may continue is shown in Table 2-18, and so displays the prohibition on cross country travel in each of the action alternatives.

Table 2-18. Acres open for cross country travel by public wheeled motor vehicle use by Alternative

Designation	Alternatives					
	Alternative A	Alternative B	Modified B	Alternative C	Alternative D	Alternative E
Acres of continued cross country travel	502,000	0	0	0	0	0

Table 2-19 compares the changes in classification of roads and unauthorized routes by showing the number of miles where use continues, the number of miles for each classification where use is not allowed, the number of miles of unauthorized routes added to the NF transportation system as roads or trails, and the number of miles of NFS ML-1 roads converted to ML-2 roads or trails where public wheeled motor vehicle use will be allowed.

Table 2-19. Changes in classification of roads and unauthorized routes by miles for each Alternative

Existing Classification	Proposed Classification	Alternatives					
		A	B	Mod B	C	D	E
Unauthorized Routes	NFS ML-2 Road	0	27	17	15	19	13
	NFS Trail open to High Clearance Vehicles	0	4	3	2	4	3
	NFS Trail open to ATVs and MCs	0	11	4	3	10	5
	NFS Trail open to MCs only	0	4	0	0	1	0
	Total Added to System	0	46	23	20	34	21
NFS ML-1 Road	NFS ML-2 Road	0	150	99	133	66	1
	NFS Trail open to High Clearance Vehicles	0	1	1	0	0	0
	NFS Trail open to ATVs and MCs	0	6	4	1	6	0
	NFS Trail open to MCs only	0	10	7	9	10	3
	Total Changed	0	167	111	143	82	4
	Closed to Use	240	558	611	581	643	723
NFS ML-2 Road	Highway and Non-Highway Vehicles	1,022	568	800	412	301	268

	Highway Vehicles Only	8	191	36	324	285	267
	NFS Trail open to High Clearance Vehicles	0	47	47	47	45	11
	NFS Trail open to ATVs and MCs	0	5	4	4	7	5
	NFS Trail open to MCs only	0	1	1	1	1	0
	Closed to Use	154	371	279	397	547	634
NFS Trail	NFS Trail open to High Clearance Vehicles		8	8	8	7	0
	NFS Trail open to ATVs and MCs		27	25	24	25	24
	NFS Trail open to MCs only		118	108	79	102	83

Seasonal Restrictions

Table 2-20 compares how the seasonal closure and over-the-snow travel vary between the six alternatives.

Table 2-20. Seasonal restriction variations by Alternative

Alternative	Seasonal Closure	Over-the-snow Travel
A	There is no seasonal prohibition on public wheeled motor vehicle use during wet weather periods.	There are no specific prohibitions on over-the-snow travel (OST) by public wheeled motor vehicles.
B	Instituted on all designated system trails and ML-2 roads. Designated routes would be closed each year from January 1 to March 31.	Wheeled non-highway legal vehicle over-the-snow travel would be allowed on ML-3, -4, and -5 roads only with 12" of snow or more. Highway legal motor vehicle over-the-snow travel would be allowed on ML-3, -4 and -5 roads only, regardless of snow level.
Modified B	Instituted on all designated system trails and ML-2 roads. Designated routes would be closed each year from January 1 to March 31.	Prohibitions on over-the-snow travel by public wheeled motor vehicles on specific routes.
C	Instituted on all designated system trails and ML-2 roads. Designated routes would be closed each year from November 1 to April 30.	Wheeled non-highway legal vehicle over-the-snow travel would be allowed on ML-3, -4, and -5 roads only with 12" of snow or more. Highway legal motor vehicle over-the-snow travel would be allowed on ML-3, -4, and -5 roads only, regardless of snow level.
D	Instituted on all designated system trails and ML-2 roads. Designated routes would be closed each year from December 1 to April 30.	Wheeled non-highway legal vehicle over-the-snow travel would be allowed on designated ML-2 roads with 24" of snow or more. Wheeled highway legal motor vehicle over-the-snow travel would be allowed on designated ML-2 roads with 24" of snow or more, and on NFS ML-3, -4, and -5 roads, regardless of snow depth.
E	Instituted on all designated system trails	Wheeled non-highway legal vehicle over-the-

	and ML-2 roads. Designated routes would be closed each year from January 1 to March 31.	snow travel would be allowed on ML-3, 4, and 5 roads only with 12" of snow or more. Highway legal motor vehicle over-the-snow travel would be allowed on ML-3, -4, and -5 roads only, regardless of snow level.
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Route-specific Forest Plan Amendments

Alternatives B, Modified B, C, and D include route-specific non-significant Forest Plan amendments to resolve inconsistencies with ENF LRMP standards and guidelines. Specific route segments that were found to be important to the development of an action alternative but are non-compliant with ENF LRMP standards and guidelines were identified and recommended for non-significant Forest Plan amendments. The standards and guidelines that these routes are inconsistent with relate to the use of motor vehicles within meadows. Table 2-21 displays the mileage and number of routes for which a non significant Forest Plan amendment is needed in order to designate these individual roads and trails. Most of the portions of the routes proposed for non-significant Forest Plan amendments are very short NFS road segments, commonly less than 0.2 miles in length.

Table 2-21. Mileage and number of routes included in Non-significant Forest Plan Amendments

	Alternative					
	A	B	Modified B	C	D	E
Miles of Routes included in Non-significant Forest Plan Amendments	0	6.7	4.8	4.9	6.6	0
Number of Routes included in Non-significant Forest Plan Amendments	0	33	21	24	29	0

Comparison of Alternatives: Elements of the Purpose and Need and Issues

This section provides a summary of how the alternatives respond to the purpose and need, and issues, discussed in Chapter 1 of the FEIS.

The key elements of the Purpose and Need are:

- regulation of unmanaged public wheeled motor vehicle travel;
- comply with the United States District Court for the Eastern District of California final order;
- provide public wheeled motor vehicle route access to dispersed recreation opportunities;
- provide a diversity of public wheeled motor vehicle recreation opportunities;
- comply with the ENF LRMP and the National Travel Management Rule of 2005.

By maintaining the existing condition, **Alternative A**, the no action alternative, does not regulate unmanaged public wheeled motor vehicle travel or comply with the court's final order. Judge

Karlton ordered the ENF to be consistent with regional guidelines for OHV route designation, but Alternative A is neither based on NEPA analysis nor does it minimize conflict between motorized and non-motorized uses. This alternative provides public wheeled motor vehicle route access to dispersed recreation opportunities and provides a diversity of public wheeled motor vehicle recreation opportunities with 2,868 miles of roads and trails open for public motorized vehicle use. In addition, the abundance of mileage in Alternative A provides routes that create loops and thru routes. This alternative does not prohibit cross-country travel and unauthorized route proliferation would most likely continue, both in violation of the National Travel Management Rule.

Alternatives B, Modified B, C, D, and E regulate unmanaged travel, comply with the court order, provide access to dispersed recreation opportunities, provide diversity of recreation opportunities, provide loops and thru routes to enhance recreational opportunities, and comply with the National Travel Management Rule. Each of the Action Alternatives was developed in consideration of the criteria for designating roads and trails established in the national Travel Management regulations (36 CFR 212.55). The Action Alternatives reduce impacts to natural and cultural resources in comparison to the No Action alternative by restricting cross country travel and by allowing public wheeled motor vehicle use on routes appropriate for that use; provides for public safety by specifying where mixed use of highway and non-highway legal vehicles may travel and by providing public maps and information to inform Forest visitors of the types of vehicles that may be using the roads and trails; provides for a broad spectrum of recreation opportunities and access needs; reduces conflicts among uses of the Forest by specifying where different classes of motor vehicles are allowed to travel and by providing public maps and other information so that Forest visitors will be informed of the types of uses occurring on the National Forest; and are consistent with the need for maintenance and administration of the roads and trails, including the availability of resources such as funding, staff, grants, volunteers, etc. Each of these alternatives recognizes that owners of private land within or adjacent to NFS lands shall be permitted ingress and egress over those NFS lands and use of existing NFS roads and trails to reach their homes and to utilize their property, consistent with rules and regulations governing the protection and administration of the lands and the roads or trails to be used (36 CFR 212.6(b)). None of the Action Alternatives propose to allow motor vehicle use within the congressionally designated Mokelumne Wilderness or the Desolation Wilderness.

In **Alternative B**, motorized vehicle use is authorized on 1,847 miles of NFS roads and trails, the highest of the five action alternatives, along with Modified B. Alternative B was designed to maximize the diversity of public wheeled motor vehicle recreation opportunities and provide access to dispersed recreation opportunities by allowing use on many existing NFS native surface roads, along with a number of unauthorized routes. This will enhance access to routes that create loops and thru routes more so than in Alternatives C through E. The three month seasonal closure on NFS ML-2 roads and trails negatively affects public wheeled motor vehicle opportunities and access to dispersed recreation for part of the year, yet the closure from January 1 to March 31 is the shortest seasonal closure proposed in the action alternatives.

Alternative B was modified to provide a balanced response to public comments received on the DEIS. **Modified B** provides a balance a high level of motorized recreation opportunities and access across the Forest, while still complying with ENF LRMP standards and guidelines. This alternative also reduces or minimizes the environmental impacts to resources and provides quiet recreation opportunities. In particular, this alternative provides greater access for all classes of vehicles, displays the rationale for eliminating use on ML-2 routes, minimizes impacts to meadows, reduces impacts to stream courses and riparian habitat and provides for additional opportunities for quiet recreation activities. In Modified B, motorized vehicle use is authorized on 1,847 miles of NFS roads and trails, the highest of the five action alternatives, along with

Alternative B. Modified B provides access to dispersed recreation opportunities by allowing use on many existing NFS native surface roads, along with a number of previously unauthorized routes. This alternative will also allow access to routes that create loops and thru routes more so than in Alternatives C through E. The three month seasonal closure on NFS ML-2 roads and trails restricts public wheeled motor vehicle opportunities and access to dispersed recreation for part of the year, yet the closure from January 1 to March 31 is the shortest seasonal closure proposed in the action alternatives.

Alternative C allows public wheeled motorized vehicle use on 1,730 miles of existing NFS native surface roads. A small number of unauthorized routes that provide connections to NFS routes or dispersed recreation sites were added to Alternative C. This alternative was designed to balance maximum public wheeled motor vehicle use with implementation of the ENF LRMP, by minimally directing OHV use onto routes where there is available mileage and connections to other routes. Access to dispersed recreation and routes that create loops and thru routes is decreased, compared with Alternatives A and B. The seasonal closure on NFS ML-2 roads and trails proposed in Alternative C runs from November 1 to April 30, the longest closure proposed in Alternatives B through E. The Forest Supervisor has the authority to open portions of the forest to wheeled motor vehicles during November, December, and April, yet the three month closure will still have an adverse impact on wheeled motor vehicle recreation and access to dispersed camping and recreation.

Alternative D, with 1,548 miles available for wheeled motor vehicle use, was designed to take into account past patterns of OHV use on the Forest as well as other public motor vehicle use. It allows for a higher density of roads and trails open for public wheeled OHV and highway-licensed motor vehicle use in popular areas that have had historic use. When possible, routes creating connections between these popular use areas were included so that OHV and highway-licensed motor vehicles could ride from one popular area to another.

Conversely, outside of these areas, wheeled motor vehicle route density was reduced. The focus outside of the popular areas is to provide access for scenic driving routes, access to dispersed recreation and access to areas of interest. The four month seasonal closure on NFS ML-2 roads and trails, from December 1 to April 30, negatively impacts wheeled motor vehicle recreation during that time. The Forest Supervisor has the authority to open portions of the forest during December and April, creating the opportunity to reduce the seasonal closure's effect on wheeled motor vehicle recreation.

In **Alternative E**, the focus is to provide greater protection for forest resources and increasing opportunities for non-motorized recreation. The 1,330 miles open for wheeled motor vehicle use was based on the routes proposed in Alternative D, then motorized use was eliminated from inventoried roadless areas (IRAs) and the Caples Creek Proposed Wilderness, as well as routes with greater potential for erosion, spreading noxious weeds, damaging sensitive plants, or threatening wildlife. NFS ML-1 roads were generally not included in Alternative E. As a result Alternative E provides the least mileage open for wheeled motor vehicle use, adversely impacting users as well as access to dispersed recreation areas. Conversely, the January 1 to March 31 seasonal closure on NFS ML2 roads and trails maximizes the time that wheeled motorized recreationists have access in Alternative E.

As described in Chapter 1, the significant issues were identified based on public input received. The significant issues were grouped into two Significant Issue Statements, and indicator measures were identified for each significant issue. Table 2-22 compares the indicator measures for each significant issue by the six alternatives.

Table 2-22. Comparison of Alternatives by Significant Issues and Indicator Measures

General Issue	Measure	Alternative A	Alternative B	Modified B	Alternative C	Alternative D	Alternative E
Significant Issue Statement 1: A reduction in motorized routes, prohibition on cross-country travel, and seasonal closure during wet weather periods, will adversely affect forest visitors and adjacent landowners.							
Access for visitors with Disabilities	Indicator Measure 1: Miles of road and trail allowing public wheeled motor vehicle use (including ML-3 to ML-5 roads).	2,868	1,847	1,847	1,730	1,548	1,330
	Indicator Measure 2: Number of dispersed sites accessed within 50' of authorized routes.	All proposed routes: 180	All proposed routes: 120	All proposed routes: 102	All proposed routes: 108	All proposed routes: 100	All proposed routes: 18
Routes adjoining other national forests	Indicator Measure 1: Number of access points adjacent to NFs.	26	14	13	14	13	11
Displacement of motorized use to adjacent lands	Indicator Measure 1: Miles of road and trail allowing public wheeled motor vehicle use, not including ML-3 to ML-5 roads.	2,188	1,362	1,212	1,245	1,063	845
Limits on dispersed camping opportunities	Indicator Measure 1: Number of dispersed sites accessed.	974	711	779	682	662	584

Limits on OHV recreation opportunities	Indicator Measure 1: Miles of road and trail allowing OHV use by class.	Motorcycle: 2,180 ATV: 1,969 4WD: 1,945	Motorcycle: 1,049 ATV: 916 4WD: 867	Motorcycle: 1,123 ATV: 1,009 4WD: 971	Motorcycle: 757 ATV: 668 4WD: 637	Motorcycle: 642 ATV: 529 4WD: 482	Motorcycle: 487 ATV: 404 4WD: 370
	Indicator Measure 2: Miles of road and trail allowing street-legal motor vehicle use by class (not including Maintenance Level 3 to 5 roads).	Dual Sport MC: 2,188 High Clearance: 1,953 Passenger Car: 1,030	Dual Sport MC: 1,362 High Clearance: 1,180 Passenger Car: 1,120	Dual Sport MC: 1,212 High Clearance: 1,060 Passenger Car: 728	Dual Sport MC: 1,245 High Clearance: 1,125 Passenger Car: 974	Dual Sport MC: 1,063 High Clearance: 903 Passenger Car: 847	Dual Sport MC: 845 High Clearance: 728 Passenger Car: 714
	Indicator Measure 3: Miles of 4WD trail.	10	60	58	57	56	14
	Indicator Measure 4: Miles of ATV trail.	24	49	37	31	47	34
	Indicator Measure 5: Miles of motorcycle only trail.	116	133	115	89	113	83
	Limits on parking for recreational opportunities	Indicator Measure 1: Distance off open route for parking.	No specific prohibitions on the use of public wheeled motor vehicles for parking	Parking a motor vehicle so that all parts of the vehicle are within one vehicle length from the edge of the route surface when it is safe to do so and without causing damage to NFS resources or facilities (FSM 7716.1 (Proposed)) shall be included with the designations.			
Seasonal closure effect on wheeled motor vehicle recreation opportunities	Indicator Measure 1: Length of seasonal closure.	None	January 1 to March 31	January 1 to March 31	November 1 to April 30	December 1 to April 30	January 1 to March 31
	Indicator Measure 2: Miles of routes closed by seasonal closure.	0	1,362	1,212	1,245	1,063	845

Significant Issue Statement 2: The proposed level of motorized use will adversely affect forest resources, adjacent landowners, and non-motorized recreation opportunities.							
Resource damage and route proliferation from dead-end routes	Indicator Measures: Number of Dead end routes allowing for public wheeled motor vehicle use	1,692	466	455	405	228	173
Inability to maintain and enforce designated route	Indicator Measures: See cost analysis in the Facilities and Law Enforcement sections of Chapter 3						
Impacts to non-motorized recreation opportunities	Indicator Measure 1: Miles of ML-1 roads open for motorized use.	482	167	111	144	82	4
	Indicator Measure 2: Miles of current NFS non-motorized trails open for motorized use.	0	10.3	1.7	0	1.7	1.2
Impacts on private-property	Indicator Measure 1: Miles of road and trail allowing public motor vehicle use across private property.	468	333	348	325	280	285
Impacts from designated public motor vehicle use on ML-1 roads	Indicator Measure 1: Miles of ML-1 roads allowing public motor vehicle use.	482	167	111	144	82	4
Impacts to forest resources	Indicator Measures: See each analysis section in Chapter 3.						
Increased wildland fire risks	Indicator Measure 1: Miles of roads and trails allowing public motor vehicle use.	2,868	1,847	1,847	1,730	1,548	1,330
Impacts to grazing allotment capabilities and livestock	Indicator Measure 1: Density of roads and trails allowing public motor vehicle use within active grazing allotments (miles per square mile).	3.36	2.35	2.34	2.22	1.99	1.71

Comparison of Alternatives: Environmental Impacts by Resource Area

Direct, indirect, and cumulative effects were analyzed for each resource area potentially affected by the project. The following is a summary of the effects for these resource areas. This summary is not meant to capture all of the effects analyses for different resources, but does present a comparison of the environmental impacts in order to sharply define the issues and provide a basis for choice among the options by the Forest Supervisor. The complete description of effects to resources resulting from implementation of each of the alternatives is provided in Chapter 3.

Air Quality

The direct effects of fugitive dust are reduced visibility on and adjacent to roads and increased levels of small diameter particulates of concern for human health reasons (specifically those less than 25 microns and 10 microns in diameter). The direct effects of fugitive dust produced by public wheeled motor vehicles operating on open routes and cross-country are directly related to the level of use the project area (Forest) receives. Indirect effects are limited to air quality degradation from smaller diameter particulates. Alternative A would not produce fugitive dust beyond that produced by routine forest management or user activities. Under the action alternatives, with fewer miles of roads and trails open for motorized use as compared to Alternative A, the effects are the same or less than those described for Alternative A.

Direct and indirect effects of vehicle emissions on air quality under Alternative A do not result in measurable variations from current conditions, since emissions from public wheeled motor vehicles are spread over much of the project area with generally good emission dispersion. Recreational travel within the project area will not cause or significantly contribute to violations of National Ambient Air Quality standards or contribute to visibility impairment beyond the existing condition. The effects from vehicle emissions under the various action alternatives are the same or less than those described for Alternative A since there are fewer miles of roads and trails open for motorized use, but vehicle use is not projected to decrease in the action alternatives.

Geology

Geologic hazards will continue under normal conditions with or without the presence of roads and trails. Large landslide stability will be influenced by the ground water rise with little or no influence from road and trail management. The modification of road or trail prisms, as well as realignment of these corridors, has the potential to influence shallow landslides. However, even these are few, and the GIS analysis indicates an effect on less than 5% of the area for all alternatives, even under the worst-case conditions.

Soil Resources

Alternative A has the greatest potential to adversely affect soils. It has no wet season closure, allows use on the most routes susceptible to gully erosion and the most ML-1 and ML-2 roads in poor condition, has the most miles open for use, has no conversion of ML-1 to ML-2 roads, and designates no unauthorized routes.

Alternatives C and D have the lowest potential for adverse impacts to soils because their six and five month seasonal closures, respectively, provide the most protection during the rainy season, and because designation of routes on soils susceptible to gully erosion and on roads in poor condition is moderate to low. The number of miles of ML-1 roads converted to ML-2 roads is low (66) for Alternative D, and moderate (133) for C.

Alternatives B, E, and Modified B have a slightly higher potential for adverse impacts to soils than Alternatives C and D. Seasonal closures provide less protection, routes on soils susceptible to gully erosion is moderately high for Alternative B and Modified B (but moderately low for E), and designation of roads in poor condition is moderate for Alternative B and Modified B, and slightly less for E. The number of miles of ML-1 roads converted to ML-2 roads is moderate for Modified B and slightly higher for Alternative B. Alternative E has almost no conversion of ML-1 to ML-2 roads.

Hydrology and Aquatic Habitat

Alternative A (no action) does not benefit water quality, protect beneficial uses of water, and meet all of the Riparian Conservation Objectives (RCOs) contained in the Sierra Nevada Forest Plan Amendment (SNFPA) of 2004. All of the action alternatives (Alternatives B, Modified B, C, D, and E) would benefit water quality and protect beneficial uses of water to some degree; the greatest benefit would occur under Alternative E, followed by Modified B. In addition, Alternatives E and Modified B are expected to meet all of the RCOs. These conclusions are based on the consideration of all of the following: 1) the number and miles of streams at a high risk of being adversely affected by unpaved roads and trails, 2) the miles of routes through meadows, 3) the length of time period of seasonal route closures, and 4) the restriction of motorized public vehicle use to designated routes (prohibition of cross-country travel).

The four stream systems that are likely to show the greatest benefit in terms of water quality and aquatic habitat as a result of the action alternatives are the Silver Fork American River, Alder Creek, Camp Creek, and the North Fork Cosumnes River. Alternative E would likely provide the greatest benefit, followed by Modified B.

The risk of cumulative effects at the 7th field watershed scale is not affected by any of the alternatives in this EIS. However, all of the action alternatives may slightly reduce the risk of cumulative effects to aquatic habitat in four stream systems after re-vegetation of closed roads (more than 20 years in the future). Those streams systems are the Silver Fork American River, Alder Creek, Camp Creek, and North Fork Cosumnes River.

Range

Impacts to range resources are associated with the density of the road and trail system and the human uses associated with the OHV opportunities in these areas. Road and trail use, and associated dispersed recreation activities, lead to spooking and stress to livestock along with shifting use patterns. All of the Action Alternatives reduce motorized routes from Alternative A, which would have a beneficial effect on range resources and grazing capabilities.

Alternative A has the highest potential for gates to be left open or damaged, allowing livestock to move off the allotment onto adjacent range allotments, other national forest areas too wet for grazing or highway corridors. Alternatives Modified B, B, C, D, and E result in progressively lower numbers of motorized routes that cross allotment boundaries and the corresponding number of gates. The lowest impact to the grazing resource would occur under Alternative E.

The available primary forage in meadows within grazing allotments is reduced by the area comprised of roadbeds. Alternative A has the highest density of routes through meadows in active and vacant allotments. Alternatives B, D, C, Modified B and E result in progressively lower miles of routes in meadows on active allotments.

Endangered, Threatened, and Sensitive Plant Species

Implementation of Alternative A would not improve conditions for sensitive plants and their habitats because of continued public wheeled motor vehicle use on the many existing routes.

Impacts to sensitive plant occurrences and habitat from cross-country travel have occurred in the past, are currently taking place, and are expected to increase in the foreseeable future due to the widespread increase in this recreational activity. Without factoring in cross-country travel, Alternative A has the greatest impact on sensitive plant species and habitats, potentially impacting 30 percent of sensitive plant occurrences documented on NFS lands within the ENF, meadow habitat along 14.9 miles of trail, ML-1, and ML-2 routes, and lava cap habitat along 23 native surface routes (12 routes with documented sensitive plant occurrences).

A dramatic decrease in potential impacts to sensitive plants occurs when comparing the Action Alternatives to Alternative A. By prohibiting cross-country travel off of designated routes, the action alternatives will provide the greatest protection to sensitive plant occurrences and their habitat. The seasonal closure included in each of the action alternatives will reduce off-road impacts to sensitive plants and habitats located along these routes during the season when soils are most vulnerable to impacts from rutting, compaction and erosion.

When compared to the other Alternatives, Alternative E would have the least impact to sensitive plant communities. The potential for direct and indirect effects would be reduced to approximately 10 percent of known ENF sensitive plant occurrences. Alternative E also provides the greatest protection of meadow habitat since no trail, ML-1, or ML-2 routes are designated through meadows and of lava cap habitat since the fewest native surface routes (13 routes, 3 with sensitive plants) are designated through lava cap in this alternative.

Modified B provides the next highest level of protection for meadow habitat (4.1 miles of trail, ML-1, and ML-2 routes within meadows) followed by Alternatives C, D, and B in that order. Modified B and Alternative C provide the second highest level of protection for lava cap (16 native surface routes in lava cap, 5 with sensitive plants), almost tying with Alternatives D and B. For overall potential direct and indirect effects to sensitive plant occurrences, Modified B is similar to Alternatives B, C and D.

Alternative E has the fewest miles of road infested by invasive species, a potential indirect effect to native and sensitive plants. Alternatives B, C, and D rank next for the fewest miles of infested roads while Modified B has slightly more miles of infested road.

Noxious Weeds Risk Assessment

Noxious weeds are plants that are generally nonnative and aggressive, difficult to manage, poisonous, toxic, parasitic, or a carrier or host of serious insects or disease. Road shoulders are particularly susceptible to weed invasion, and is the site of many of the noxious weed occurrences on the ENF. Within the ENF a total of documented road weed infestations is 9.6 miles, with 5.1 miles occurring along ML-1, -2, and native surface -3 roads. Alternative A has the greatest number of miles of infested roadside, with 5.1 miles of infested roadside. Alternatives B, Modified B, C, D, and E have fewer miles of infested roadside with Alternatives B, C, and D having virtually the same number of infested miles. Modified B has the most miles of weeded roadside of the Action Alternatives and Alternative E has the fewest miles of weeded roadside. Infested mileage differs by 0.8 mile from Alternative E to Modified B.

Terrestrial Wildlife Species and Habitat

Wildlife species have been categorized into five groups based upon a combination of their biology and interactions with road- and motorized trail-associated factors. These groups are (1) old forest associated species; (2) wide-ranging carnivores; (3) ungulates; (4) riparian- associated species; and (5) cavity dependent species.

Old Forest Associated Species: Effects of project Alternatives contribute to past reductions in the quantity and quality of old forest habitat on the Eldorado National Forest. In particular, the

density of routes open to motorized use in the alternatives influences old forest habitat quality through fragmentation of habitat patches, increased amounts of edge and increased potential for disturbance and displacement of species. Higher amounts of edge habitat has been shown to increase nest predation rates and to result in lower productivity and survival for a number of interior forest birds. Forest fragmentation is suspected of altering habitat suitability for fisher and marten. Old forest habitat connectivity, as measured by the average size of undissected old forest habitat patches, declines by about 55 percent in Alternative A and to an incrementally lesser extent in Alternatives B and Modified B, C, D, and E.

Alternative A influences a substantial portion of the habitat available to old forest-associated species. More than a quarter of key spotted owl habitat (the PAC land allocation) occurs within 60 meters of an open motorized route, and over 60 percent of marten habitat is within a zone where marten activity may decline in response to motorized routes. The effect of project alternatives upon old forest habitats and species declines incrementally under the remaining alternatives, with Alternatives B and Modified B and Alternatives C and D being very similar in the degree to which they influence species habitats. Alternative E influences the least amount of old forest habitat with motorized routes and for marten is likely to provide greater habitat effectiveness by eliminating open routes within meadows and in high elevation areas identified as IRAs. Alternative E is least likely to result in adverse cumulative effects to old forest habitat and species, followed by Alternatives D, C or Modified B, B and A.

Wide-Ranging Carnivores: Areas with low human presence are likely to provide the most effective habitats for wide-ranging carnivores such as fisher, wolverines, Sierra Nevada red foxes, black bears, and mountain lions. Areas with concentrated human presence may be lost as habitat (or become population sinks) for these species. Given these factors, the direct and indirect effects of project alternatives combined with additional human activities may result in adverse cumulative effects to wide-ranging carnivores.

In Alternative A, nine percent of the project area has a route density of zero (based upon a 0.9 km moving window area); this increases to 18 percent of the project area in Alternative E. In Alternative A, more than 30 percent of black bear cover and denning habitat occurs within a zone where black bear are likely to be influenced by motorized routes. Adverse effects are greatest under Alternative A, where route densities exceed four miles per square mile over 40 percent of the project area, and decrease in the Action Alternatives, where route densities exceed four mile per square mile on 12 to 20 percent of the project area (Alternatives E and B or Modified B, respectively). Of the action alternatives, Alternative E contributes the most toward improved conditions for wide ranging carnivores and Alternatives B and Modified B contribute the least based upon route densities. Since high elevation habitat connectivity and function is improved by not designating routes in IRAs and providing undisturbed meadow habitats, Alternative E, in particular, improves conditions for the wolverine and Sierra Nevada red fox.

Ungulates: Where disturbance from motorized road or trail use causes deer to avoid areas within preferred habitats, animals may be forced into less preferred or lower quality habitats. Such shifts, particularly if repeated, can result in adverse impacts to the energy balance of individual deer and ultimately can decrease population productivity, especially on winter ranges. Variables such as the amount and frequency of traffic, and the spatial distribution of roads in relation to deer use, influence the degree of negative effects that roads have on deer use in forested habitats.

Road densities in Alternative A exceed 2.5 miles per square mile and do not meet ENF LRMP Standard and Guideline limits for road densities for the Pacific and Grizzly Flat deer winter ranges. Summer range and fawning habitats are also substantially influenced by roads in this alternative. A substantial portion (greater than 50%) of deer critical winter range and critical summer range/fawning habitats are subject to the influence of motorized routes in Alternative A.

The density of routes in critical winter ranges, critical fawning habitats, and meadows in Alternative A, may adversely affect deer populations and contribute to other factors that are hindering achievement of deer herd population goals.

Alternatives B, Modified B, C, D and E each comply with ENF LRMP Standards and Guideline limits for road and trail densities. These alternatives are progressively less likely to result in adverse effects since route densities in important deer habitats are lower. Nonetheless, a substantial portion (greater than 50%) of Grizzly Flat deer herd's critical winter range and critical summer range/fawning habitats are subject to the influence of motorized routes in Alternatives B and Modified B. Alternative E is least likely to hinder reaching herd population goals since it has the lowest route densities and does not designate motorized routes within meadow habitats which often serve as key fawning areas and population centers during the summer months (CDFG 1998).

Riparian Associated Species: Riparian and meadow areas are particularly important habitats for birds and other wildlife in the Sierra Nevada (RHJV 2004, Graber 1996). The limited geographic extent of meadows and riparian habitats increases their importance and the implications of habitat loss or degradation to species. In most watersheds the influence of open routes within RCAs declines substantially between Alternative A and Alternative E, with a relative reduction by half. The exceptions are the RCAs in the Upper Cosumnes River watershed and the North Fork Cosumnes watershed, which remain substantially influenced by routes even in Alternative E (22 percent and 15 percent of the area within these RCAs occurs within 60 meters of a route). Alternatives B, Modified B, C, and D influence progressively less habitat in RCAs, falling between Alternatives A and E in their degree of influence. For these reasons, adverse effects associated with habitat alteration, riparian habitat fragmentation, breeding disturbance, edge effects and increased predation, particularly upon the many migratory birds using these habitats, are expected to be greatest under Alternative A and decrease incrementally (though to a lesser degree) between Alternatives B, Modified B, C, D and E.

The number of meadows affected by motorized routes declines progressively between Alternatives A, B, D, C and Modified B. Alternative E does not open routes within meadows and therefore contributes the most toward improved conditions for meadow-associated species, such as the willow flycatcher and great gray owl.

Cavity Dependent Species: Road and motorized trail-associated factors likely to affect these species are: edge effects and the reduction of snags and down logs. Snag and down log reduction occurs as an indirect effect of managing roads or trails for public use and from fuelwood collection within a zone of about 60 meters from a road's edge.

Alternative A results in 17 percent of cavity dependent species habitat occurring within a motorized route's zone of influence. Alternatives B and Modified B, C, D, and E result in progressively lower proportions habitat that would be influenced by motorized routes, but all have a relatively low level of influence on the total amount of this type of habitat.

Aquatic Wildlife

Alternative A would be expected to have the greatest potential to adversely affect aquatic habitats, aquatic-species and aquatic-dependent species because Alternative A proposes the greatest overall length of motorized route, the greatest amount of continued use on of unauthorized routes, and has the most route length within Riparian Conservation Areas.

The Action Alternatives have less potential to adversely affect aquatic habitats and aquatic species. Of the action alternatives, Alternative B would be expected to have the greatest potential to adversely affect aquatic habitats, aquatic species and aquatic-dependent species because this alternative proposes to add the greatest number of miles of unauthorized routes, converts the

greatest length of NFS non-motorized trails for motorized use, and would allow motor vehicle use on the greatest length of ML 2 roads within meadows.

The greatest reduction in risk of adverse aquatic habitat alteration would occur with implementation of Modified B followed by Alternative E, based on the length of motorized route within Riparian Conservation Areas of perennial streams, intermittent streams, and meadows³.

Facilities

The estimated annual costs of maintaining roads allowing for public wheeled motor vehicle use (not including ML-3 through ML-5 roads) would range from a high of \$889,000 for Alternative B to a low of \$758,000 for Alternative E. Alternative C has the second highest cost at \$870,000, followed by Modified B (\$798,000), Alternative D (\$796,000) and Alternative A (\$793,000). All of the Action Alternatives except Alternative E exceed cost for maintenance in Alternative A due to the addition of unauthorized routes to the transportation system and increased maintenance costs for ML-1 roads that will allow public motor vehicle use. The funds available for annual road maintenance fall short of the estimated costs calculated for any of the alternatives. To meet the shortfall and to better provide for needed maintenance, the ENF will reduce road maintenance levels in the future, concentrating on the ML 3-5 roads since these are so much more expensive to maintain, work with cooperators and hydroelectric licensees to assure they pay their fair share of the maintenance on the roads that they use, look for opportunities to apply for grant funding and build on the public's interest in volunteering.

The estimated costs of maintaining NFS motorized trails proposed for public motor vehicle use on a three year cycle ranges from \$104,000 for Alternative B to \$56,000 for Alternative E. Modified B has an estimated maintenance cost of \$90,000, the estimated annual maintenance for Alternatives A, C and D are \$64,000, \$76,000 and \$93,000 respectively. Similar to road maintenance the funds for trail maintenance are insufficient to maintain the NFS motorized trails open for public use in any alternative. However, there are various opportunities to accomplish the needed work through additional grants and volunteer work.

Mixed Use has been occurring on ML 2 roads on the ENF for a number of years. A review of the available accident information was done as part of the process of preparing this EIS, and no unusual risks or accidents attributed to mixed use were identified on the ML 2 routes that are being proposed in the Action Alternatives. A Mixed Use analysis, using the engineering judgment method, has been prepared for the ML 2 roads that are proposed for Mixed Use designation under Modified Alternative B, including the ML 1 roads and unauthorized routes that will be managed as ML 2 roads open to motor vehicle use. The Mixed Use analysis concluded that allowing continued mixed use on the ML-2 roads and roads to be added to the transportation system as ML-2 roads will not present an increased risk to public safety.

Mineral Resources

Miners, prospectors, and owners of unpatented mining claims have a statutory right of reasonable access under the mining laws. Surface uses under the mining laws, including motor vehicle access to and across NFS lands that are open to mineral entry are regulated under the provisions of the FS regulations at 36 CFR 228 Subpart A. Alternative A, with the highest number of miles of roads and trails open for public wheeled motor vehicle use would provide the greatest opportunity for prospecting and mineral exploration, which may lead to a higher likelihood of discovery of a significant mineral resource. The opportunity for prospecting and exploration decreases from Alternative A to Alternative E. Modified B is similar to Alternative B in effects. Seasonal

³ Excludes Riparian Conservation Areas of ephemeral streams.

closures will further reduce the opportunities for mineral prospecting, but to a lesser extent than restrictions to general access. In addition, there is a greater opportunity for prospecting and exploration in Alternative A since cross-country travel is not prohibited for public wheeled motor vehicles. The Action Alternatives (B-E, including Modified B) prohibit cross-country travel.

Special Uses

The Travel Management regulations (36 CFR 212) recognize that motor vehicle use may be authorized as part of a special use authorization, and as such, the permit holder may use routes that are otherwise not open for general public use. Therefore, the designation of motor vehicle routes for public use will not have any direct effects on these uses or activities. However, where these permit holders are using existing roads or trails, there may be an indirect effect, in that permit holders may have an increased responsibility for maintenance or protection of those roads or trails not otherwise open to the general public.

Adjacent Land Ownership

In Alternative A, the existing condition would continue, including: public wheeled motor vehicle use of routes across private property without a documented public right-of-way and their associated conflicts (e.g. trespass, vandalism, littering, noise, and dust); and use of routes by OHVs within ½ mile of privately owned property with existing residences and their associated conflicts (e.g. noise, dust, and route proliferation). Amongst the various action alternatives, public wheeled motor vehicle use would generally not be allowed on roads or trails across private property without a documented public right-of-way. In addition, the use of only highway licensed motor vehicles is allowed on specific ML-2 roads or NFS motorized trails within ½ mile of privately owned property with an existing residence unless that road or trail is critical to the design of the different action alternative, such as routes that serve as major connection points into the Forest, that create loop routes for OHV opportunities, that access a dispersed camping site, or that access unique features on the Forest. These routes should have limited impacts associated with having public wheeled motor vehicle use near privately owned property with existing residences and would allow quality motorized recreation opportunities to continue.

Inventoried Roadless Areas

Alternative A will have the greatest overall adverse impact to the IRAs on the Forest from the continued use of unauthorized motorized routes, particularly within Caples Creek, Dardanelles, Pyramid and Tragedy-Elephant's Back IRA. This alternative has the greatest potential for impacts to roadless characteristics, including impacts to water quality, continued fragmentation of mature forest habitat, and the potential for the spread of noxious weeds. This alternative would have the greatest opportunities for semi-primitive motorized recreation which is one of the roadless characteristics, and would provide the most access for dispersed camping and other associated recreation. However, conflicts between motorized and non-motorized recreationists would continue due to vehicle noise and presence, providing the least opportunities for undisturbed primitive (non-motorized) recreation.

The impacts associated with Alternatives B, Modified B, C, and D, are similar in that the miles of routes that are proposed for future motor vehicle use are similar but reduced from Alternative A. Alternative E proposes to eliminate all motor vehicle routes within any of the IRAs. This would have the greatest positive effect on the protection of the roadless characteristics, would reduce the fragmentation of mature forest habitat, would provide for semiprimitive nonmotorized recreation opportunities, but would have the greatest loss in semiprimitive motorized recreation opportunities.

Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers on the ENF. A portion of the Rubicon River has been recommended for Wild and Scenic River designation through the ENF LRMP (one segment is classified as Wild and two segments are classified as Scenic), and a recommendation was made for designation of a segment of the Mokelumne River (classified as Recreation). There are several other river segments that have been found to be eligible for Wild and Scenic River designation. Alternative A would continue to allow motorized use on 1.5 miles of road within the portion of Rubicon River that is recommended for Wild classification, and would allow motorized use on 5.5 miles of trails adjacent to and across Caples Creek, which has been found eligible for Wild classification. The continued motorcycle use adjacent to and across Caples Creek has the potential to affect habitat capability for trout and could affect the natural reproduction of trout, thereby adversely affecting the fisheries resource, which is one of the Outstandingly Remarkable Values for this stream.

Alternative B would allow motorcycle use on 2.5 miles of trail adjacent to Caples Creek, but eliminates use on the trails crossing Caples Creek. The continued motorcycle use adjacent to Caples Creek has the potential to adversely effect the fisheries resource (one of the Outstandingly Remarkable Values for this stream), but to a lesser extent than Alternative A. The other alternatives do not allow motor vehicle use within the segments eligible or recommended for Wild Classification, and no adverse effects are anticipated to the Outstandingly Remarkable Values for the remaining reaches eligible or recommended for W&SR designation.

Wilderness

None of the alternatives, including the No Action Alternative propose to allow motor vehicle use within the congressionally designated Mokelumne Wilderness or the Desolation Wilderness. Alternatives A, and B would allow motorcycle use of several trails within the recommended Caples Creek Wilderness Area, consistent with the Record of Decision for the ENF LRMP. This area was recommended for Wilderness designation in the ENF LRMP, however, Congress has not yet designated this area as wilderness. Alternative A would continue to allow motorcycle use on 12 miles of trails within the Caples Creek Recommended Wilderness Area, and Alternative B proposes to allow motorcycle use on 7.3 miles of trails in this area. The other action alternatives do not propose to allow any motor vehicle use on trails within the Caples Creek Recommended wilderness area. Motorcycle use on these trails will continue to degrade some of the trails within this area unless they are redesigned and reconstructed to accommodate this use, and will continue to degrade the wilderness character to a limited degree. The impacts to these trails, and adjacent resource damage, include riparian sedimentation, stream bank damage at trail crossings, localized damage to meadow habitat, and vegetation loss due to trail widening. Use of these trails by equestrians and hikers also contributes to the resource damage and will limit the benefits from restricting motorcycle use on these trails. Continued cross-country travel within Alternative A will further impact the wilderness character adjacent to the motorized trails.

Noise from motor vehicles operating outside of the wilderness affects solitude opportunities within wilderness areas. Motor vehicles operating on gravel and native surfaced roads also have the potential to create fugitive dust and negatively affect air quality within wilderness areas. Alternative A has the greatest number of miles of native surface roads and trails within one mile of the wilderness boundary, with an associated higher potential for reduced opportunities for solitude and reduced air quality locally. Alternative E has the least number of miles of native surface roads and trails, with an associated lesser potential for reduced opportunities for solitude and reduced air quality locally. Alternatives B, Modified B, C, and D, respectively, have fewer miles than Alternative A.

Socioeconomic Environment and Environmental Justice

It is anticipated that levels of use would be relatively static under all alternatives, although the use patterns may change. The ENF offers a variety of recreation opportunities and visitor use on the Forest is already distributed over a number of different recreation activities. The majority of Forest visitors are from the local area and surrounding counties, and will continue to use the Forest under each of the action alternatives. At some point, some users may no longer attain the experience they desire and may seek other areas off-forest, potentially impacting economies in the local area. The point at which this would occur is speculative. Information available regarding per-trip expenditures indicates that revenue generated from recreation visits to the ENF may be significant for individual businesses, but is only a small percentage of the overall local economy.

The seasonal closure associated with each of the Action Alternatives is likely to have some impact to the local economy, but it is nearly immeasurable in comparison to the overall local economy. The total change in use during the seasonal closure and the change in spending patterns is speculative, since surfaced roads will still be open to use, snow covers many routes making them impassable for much of the seasonal closure period, and the amount of use on native surface roads during this period is relatively small in relation to the total use on surfaced and native roads. The seasonal closure would likely impact gas stations, convenience stores, and other retail stores in local communities outside of the Rock Creek area.

None of the alternatives show any identifiable effects or issues specific to any minority or low-income population or community. Changes in road and trail management would have the same effect on all groups of people including minorities and different cultures. Alternatives with fewer miles of roads and trails open for public wheeled motor vehicle use will provide fewer opportunities for the general public, including visitors with disabilities, access to areas within the ENF. The effects to individuals with disabilities will depend in part on the activities those individuals participate in and their mode of transportation.

Heritage Resources

Alternative A has the greatest potential to directly and indirectly negatively affect at-risk historic properties due to the large number of at-risk historic properties located within route corridors, combined with no prohibitions on current existing routes for public wheeled motor vehicle use. Identified at-risk historic properties for this project are prehistoric archaeological sites that include buried deposits (e.g. lithic scatters and midden) and are bisected by, or immediately adjacent to, proposed unauthorized routes. Values associated with buried deposits can cause these sites to be susceptible to ground disturbance such as erosion, rutting, and down cutting of the soil on these routes. In addition, site boundaries of these sites are ill-defined as they have been based solely on surface observations. Sub-surface testing of these sites will only assure the true extent of these sites. Alternative A includes 132 sites with these features.

Alternatives B, Modified B, C, D and E have low potential to directly negatively affect at-risk historic properties due to the small percentage of at-risk historic properties located within route corridors (ranging from 9 sites in Alternative B to 4 sites in Modified B and 3 sites in Alternative E). These alternatives also have a moderate potential to indirectly negatively affect at-risk historic properties due to the number and location of routes and associated use areas. The Action Alternatives prohibit public wheeled motor vehicle cross-country travel and have a wet weather seasonal closure, further reducing the potential for adverse effects to cultural resources. Thus, these alternatives should have an overall beneficial effect to cultural resources. There is, however, a concern for cultural resource sites not discovered due to such factors as dense vegetation and those sites that are comprised of buried deposits (such as lithic scatters).

Law Enforcement

Under Alternative A there would be no prohibitions for public wheeled motor vehicle use on existing routes, nor on cross-country travel. Law enforcement patrols by FPOs and LEOs would focus on resource damage, route proliferation, compliance with vehicle code requirements, and other federal regulations. Available law enforcement to handle these problems would continue to be inadequate.

Under the Action Alternatives, FPOs and LEOs will be able to more strategically focus enforcement on the fewer number of open routes to prevent route proliferation and resource damage, while still providing for education, information, and public safety. There will continue to be a need to maintain a level of law enforcement effort associated with routes not open for public wheeled motor vehicle use to prevent resource damage on these routes and route proliferation off of these routes. The availability and readability of public maps that display the designated system, designated routes being clearly marked on the ground, effective public education about the route designation regulations, and ongoing efforts to install and maintain signs, barriers or other physical closures of routes not designated for use will allow Forest visitors to comply with the various restrictions. Future decisions for physical closure of routes not open to public wheeled motor vehicle use will reduce number of routes and miles that need to be patrolled.

In the Action Alternatives, enforcement of the seasonal closure would require adequate signing and public notification, patrols, primarily on surfaced roads within the forest, and an ongoing public education effort. There will be an initial period in which compliance may be low, as the public notification and education efforts are begun, but it is anticipated that compliance will improve as the forest policy is implemented. Due to fewer roads and trails allowing public wheeled motor vehicle use, the need for patrols during the seasonal closure period will decrease as the closed roads and trails become physically blocked or gated. There will still be a need for some patrols to assure compliance with the seasonal closure.

Recreation

Alternative A allows for public wheeled motor vehicle travel on 2,868 miles of routes and does not prohibit cross-country travel. This alternative has the least impact to motorized recreationists by providing the greatest number of miles open to motorized use of all alternatives and is the only alternative that includes ML-1 roads open for use. This alternative also provides the greatest number of miles of motorized recreation opportunities by class of vehicle. However, because this alternative essentially represents the existing condition it does not address changes needed to create a cohesive, designed, and well managed recreation system. This alternative provides the greatest amount of relatively easy access to dispersed camping areas and represents the least adverse impacts to dispersed recreationists. This alternative has the greatest potential to impact those participating in quiet recreation activities due to the noise of vehicles and the potential of encountering vehicles on more roads and trails, although the extent of access in this alternative allows visitors to reach more areas across the Forest by way of motorized means.

Alternative B allows for public wheeled motor vehicle travel on 1,847 miles of routes and prohibits cross-country travel. This alternative provides the most motorized public use of all of the action alternatives, along with Modified B. In addition, this alternative provides the greatest number of miles of trails for OHV use, including the greatest number of miles of trails open to ATVs. This alternative, along with Modified B, has the highest number of easily accessed dispersed use areas of the action alternatives, and represents the least adverse impact to dispersed recreationists of the action alternatives. However, because this alternative proposes to open 10.3 miles of previously non-motorized trails to motorized uses, and proposes to close only 7.1 miles of existing motorized trails, there is a net loss to non-motorized trail users. The opportunities for

quiet recreation would increase over those in Alternative A because the miles of roads and trails open to public wheeled motor vehicle use are reduced.

Modified B allows for public wheeled motor vehicle travel on 1,847 miles of routes, similar to Alternative B, and prohibits cross-country travel. This alternative provides the most motorized public use of all of the action alternatives, along with Alternative B. This alternative provides the highest total mileage (1,123 miles) and the greatest percent of total mileage (61 percent) open to OHV use of any of the action alternatives. This alternative provides the fourth highest number of miles of trails for OHV use. Of all the action alternatives, Modified B represents the least adverse impact to dispersed recreation, providing access to 65 percent of the sites inventoried. 18 percent of inventoried dispersed use sites are classified as very easily or easily accessible from a road in this alternative. Modified B has the second highest mileage of existing NFS non-motorized trail proposed for motor vehicle use (1.7 miles), along with Alternative D, yet this is well below the 10.3 miles proposed in Alternative B. The 10.3 miles of NFS motorized trail not proposed for motorized use is the third lowest of all alternatives. The opportunities for quiet recreation would increase over those in Alternative A because the miles of roads and trails open to public wheeled motor vehicle use are reduced.

Alternative C has the third highest mileage of the action alternatives available for public motor vehicle use (1,730 miles) and the third highest mileage available for OHV use. This alternative has the longest proposed seasonal closure, a 6-month closure. This alternative provides less access to dispersed use areas than Action Alternatives B and Modified B. This alternative does not propose to open any non-motorized trails to motorized use, and proposes to close 39.4 miles of motorized trail to future motorized use. Also, as a result of the reduced number of miles of routes proposed to be open to motorized use and the increased percentage of areas more than 0.25 miles from a road or trail proposed to be open to motor vehicle use, there are increased opportunities for quiet recreation.

Alternative D proposes the fourth lowest mileage (1,548 miles) of the action alternatives. This alternative proposes the second highest motorized trail mileage of the Action Alternatives (6 miles more than Modified B), reflecting the effort in this alternative to maintain the popular riding areas with higher trail densities. This alternative provides a slightly lower number of dispersed use sites than Alternative C. The seasonal closure is two months longer than Alternatives B, Modified B and E, and one month shorter than Alternative C. This alternative provides the greatest mileage open to wheeled over snow travel of any of the action alternatives. This alternative allows for over snow travel on ML-2 roads with a minimum snow cover requirement of 24 inches, rather than 12 inches in the other action alternatives. This alternative provides an increase in opportunities for quiet recreation, due to the decreased road and trail densities.

Alternative E allows for the least number of miles for public wheeled motor vehicle travel (1,330 miles) on the Forest and prohibits cross-country travel. This alternative also proposes the least mileage open to OHV use and the least motorized trail mileage of any of the alternatives. This alternative provides the least access to easily accessed dispersed use sites. This alternative would eliminate access for motorized users to many areas of the Forest, greatly impacting their recreation opportunities, especially in the upper elevations. It also does not propose a cohesive transportation system for motorized recreationists. Conversely, this alternative provides the greatest overall positive impact to non-motorized trail users and those seeking quiet forms of recreation.

Visual Resources

Alternative A has the highest degree of negative visual impact to the natural-appearing forested landscape as viewed from managed viewsheds because more routes will remain open and in use

under this alternative. This alternative also has the highest number of unauthorized routes which is usually negative due to the associated ground and vegetative disturbance. A landscape or viewshed with less evidence of human activity in general is of a higher visual quality. Alternative A provides the highest opportunity for the most people to visit places with special meaning to people because of created memories, unique landscape features, or beautiful vistas that exist across the Forest. Alternative A also allows the most likelihood for the most people to view negative visual impacts resulting from management activities on more acres of land.

There is a relatively little difference between the Action Alternatives with respect to the visual resources, when compared to the difference of open routes in Alternative A. The majority of routes affected under these alternatives are currently NFS ML-1 roads. Because many of these roads were constructed in concert with past timber sale projects and fuels management projects, their density within specific areas is relatively high. Over time, natural re-vegetation would occur within the route templates obscuring the constructed appearance and reducing contrast with the surrounding landscape. A more natural appearing landscape across the Forest would result with less evidence of human activity. The improved visual quality would be most evident in the foreground from NFS ML-3, -4, and -5 viewsheds which previously accessed timber management areas (e.g. 09N22 – Buckskin Joe Rd.). Many unauthorized routes would also not be designated, and over time, the intersections would be unnoticed in the foreground.

Under the Action Alternatives, there is less opportunity for the public to access ‘special places’ and to experience the variety of scenic beauty that the Forest has to offer than under Alternative A. Assuming miles of available easy access (motorized) can be directly correlated to acres of potential scenic opportunities (by the highest number of people), the alternatives with more available motorized routes would be preferable to the alternatives with lower available motorized routes. Under these alternatives there is less opportunity for the public to view landscapes altered by management activities than under Alternative A. Alternatives with fewer available motorized routes would be preferable to the alternatives with higher available motorized routes from a visual standpoint.

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