Exhibit 1

ROC's Review of the Lassen National Forest Engineering Reports for Proposed Motorized Mixed Use Roads

A. Introduction Section to the Engineering Reports (page 1)

The "Introduction" section to the engineering reports should comply with Forest Service Manual and Handbook direction, and also be consistent with factual data from the:

- 2005 Traffic Study on the Lassen National Forest,
- LNF INFRA Roads Database,
- LNF 2000 and 2005 National Visitor Use Monitoring (NVUM) data,
- LNF Land and Resource Management Plan,
- California 2000 Census data,
- County road management direction,
- California Vehicle Code, and
- long-standing, permitted OHV use on the LNF.

Without it, the descriptions in this section for each road are incomplete and misleading.

1. To set the context for the discussion that follows, some background information is helpful.

National Forest System (NFS) roads are not public roads in the same sense as roads that are under the jurisdiction of State and county road agencies. NFS roads are not intended to meet the transportation needs of the public at large. Instead, they are authorized only for the use and administration of national forest lands. Although generally open and available for public use, that use is at the discretion of the Secretary of Agriculture. Through authorities delegated by the Secretary, the Forest Service may restrict, control or allow traffic to meet specific management direction. NFS roads are categorized by five maintenance levels (1-5) with 5 being the highest standard of maintenance and 1 being a closed road.

A maintenance level 2 road is open for use by high-clearance vehicles, including non-highway legal vehicles. Standard passenger car traffic is allowed, but discouraged.

The Forest Service calls ML 3-5 roads "passenger car" roads. A maintenance level 3 road is:

"Assigned to roads open and maintained for travel by prudent drivers in a standard passenger car. User comfort and convenience are low priorities. Roads in this maintenance level typically are low speed, single lane with turnouts, and spot surfacing. Some roads may be fully surfaced with either native or processed material. These roads have the following attributes:

- Subject to the Highway Safety Act and MUTCD.
- Roads have low to moderate traffic volumes.
- Typically connect to arterial and collector roads.
- A combination of dips and culverts provide drainage.
- May include some dispersed recreation roads.
- Potholing or washboarding may occur."

A maintenance level 4 road is defined as:

"Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Most roads are double lane and aggregate surfaced. However, some roads may be single lane. These roads have the following attributes:

- Subject to the Highway Safety Act and MUTCD.
- Roads have moderate traffic volume and speeds.
- May connect to county roads
- Culverts provide drainage.
- Usually a collector.
- May include some developed recreation roads."[8]

A maintenance level 5 road provides a high degree of user comfort. These roads are normally double lane paved roads or aggregate surfaced with dust abatement.

Section 38001(a) of the California Vehicle Code (CVC) states:

"For the purposes of this division, the term 'highway' does not include fire trails, logging roads, service roads regardless of surface composition, or other roughly graded trails and roads upon which vehicular travel by the public is permitted."

According to the California Highway Patrol (CHP) and CVC, unpaved ML 3 and 4 roads are not "highways." Non-highway legal vehicle (OHV) travel is legal on these roads.[9]

Forest Service Region 5 direction in 2006 and 2007 states NFS roads maintained for passenger cars (ML 3-5) are not considered roughly graded; therefore the operation of non-highway legal vehicles on these roads is not consistent with State traffic law. Further, Regional direction implies that vehicles on ML 3-5 roads must be highway legal and operated by licensed drivers. All ML 3-5 roads are considered "highways" under the CVC by Region 5. This conflict in each agency's interpretation of the CVC has a profound effect on OHV recreation in California.

2. Local County Boards of Supervisors and Public Works Directors do not consider unpaved county roads to be "highways" and non-highway legal vehicle travel is legal under State traffic law (County Resolutions and statements from County Public Works Directors found in Exhibit 3).

3. County and national forest road systems are intertwined and should operate as a seamless network for the public to use. The LNF's engineering reports and mixed use conclusions stand in stark contrast to what is authorized on unpaved county roads.

4. The LNF is a rural forest with no nearby population centers of any size within 80 miles (CA 2000 Census).

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[8] "Guidelines for Road Maintenance Levels," 0577 1205-SDTDC, December 2005.

[9] Letter from CHP Deputy Commissioner J.A. Farrow to Regional Forester Randy Moore, 12/19/07 (Exhibit 6).

5. Traffic volumes on LNF unpaved ML 3 and 4 roads are generally less than 30 average daily traffic (ADT) and not likely to increase any time soon (2005 Traffic Study, 2006 LNF Roads Analysis Process, 2009 LNF Engineering Reports, and NVUM).

6. Non-highway legal vehicle travel on unpaved LNF ML 3 and 4 roads is extremely low (2005 Traffic Study, 2009 LNF Engineering Reports, and NVUM).

7. Visitor use on the Forest is declining according to LNF 2000 and 2005 NVUM surveys (from 656,000 national forest visits in 2000 to 607,000 visits in 2005).[10] Total OHV participation on the Forest is also declining from 6.9 percent in 2000 to 4.6 percent. In the 2000 NVUM, 11,376 visitors identified OHV use as the primary recreation activity for their stay, compared to 9,796 visitors in 2005.[11]

8. Traffic speeds on ML 3-4 roads are low (generally 25 mph or less) due to rough surfaces, dust and road hazards (2009 INFRA and 2005 Traffic Study).

9. All LNF unpaved roads are currently open to all motor vehicle classes, including non-highway legal vehicles. (This information was omitted in the engineering reports. A discussion of traffic volume and type including a history of OHV use on the roads is required (FSH 7709.55, Chapter 32.11, item 4, and EM-7700-30, pages 3-4.)

10. OHV operators assume paved roads are not open to OHV travel. They do not know or understand the distinction between unpaved ML 2, ML 3 and ML 4 roads or similar intersecting county roads. This situation is exacerbated by the difficulty in maintaining road signage in many areas of the LNF.

11. Decades of OHV use have resulted in no documented mixed use accidents on the LNF – ever! In the past 15 years, there have only been 11 mixed use accidents reported in California's national forests, 3 of which involved Forest Service employees and 1 involved a Deputy Sheriff crashing into an OHV (see Exhibit 7). OHV use on LNF unpaved ML 3-4 roads is a long-standing, accepted practice and common knowledge among users and LNF law enforcement officers.

12. LNF law enforcement officers have permitted OHV use on unpaved ML 3-4 roads unless operators failed to comply with Division 16.5, California Vehicle Code, and FS regulations.

13. The LNF can issue temporary forest orders (road closures) to prohibit OHV use on selected roads whenever there is commercial haul or for other reasons (FSH 7709.59, 23).

14. Appropriate road signs and maps in the future will alert the public that mixed use is authorized on these roads and increase driver safety (FSH 7709.59, 52.4). Although no signs exist now, there has never been a reported mixed use accident on the LNF.

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[10] FEIS, page 117.
[11] FEIS, page 120-121

15. Proposed mixed use roads on the LNF will meet the following goals in the Forest's Land and Resource Management Plan (pages 4-24 to 4-25).

    "Provide a wide range of outdoor recreation opportunities to meet public demand by furnishing different levels of access, service, facilities, and information."

    "Provide diverse opportunities for off-highway vehicle (OHV) recreation."

16. Prohibiting mixed use in the future on LNF unpaved ML 3-4 roads will significantly limit OHV opportunities for long distance touring on intersecting unpaved county roads and the LNF's ML 2 road system. It will not be possible to use ML 3-4 connectors.[12]

Specific comments on the Forest's engineering analysis of road number 31N17 (a 1.9 mile segment) follows. These comments reflect ROC's concerns with <u>all</u> the proposed mixed use roads in the engineering reports that accompany the FEIS in Exhibit 2. The attached spreadsheet summarizes our analysis of the data on the other roads analyzed. None of the engineering reports meet the requirements in Section 38026, CVC for proposed combined-use highways as described in CHP's letter to the Regional Director of Recreation, Lands, Wilderness and Heritage Resources.[13]

B. Specific Comments on the Engineering Report for Road # 31N17

31N17, Page 2, Introduction:

Lines 7, 8 and 9–We question why the 17 road is even on forest highway list when the criteria in the Forest Service Manual are not met (FSM 7740.5, 7741.1, effective 8/24/2000 and FSM 7703.3, effective 1/8/09).

Forest Service Manual 7741.1 states:

> "Forest highways are a special classification of forest roads. They are specifically designated <u>State or local government roads</u> that meet the criteria listed in 23 CFR 660.105. The designation of forest highways is not intended to form a 'system' of roads. Instead, the purpose of the designation is to identify <u>State and local government roads</u> that qualify for construction and reconstruction funding under the forest highway program. (Underlining added for emphasis.)

Forest Service Manual 7740.5 defines a forest highway as:

> "A designated forest road under the jurisdiction of, and maintained by, a public authority that is subject to the Highway Safety Act."

In reference to "forest highways," Forest Service Manual 7703.3 says:

> "Wherever possible, transfer jurisdiction over an NFS road and associated forest transportation

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[12] FEIS, page 121.

[13] CHP letter to Marlene Finley, Regional Director of Recreation, Lands, Wilderness and Heritage Resources, dated February 3, 2009 (Exhibit 9).

facilities (FSM 7705) to the appropriate public road authority when the road meets any of the following criteria:

a) More than half of the traffic on the road is not related to administration and use of NFS lands.
b) The road is necessary for mail, school, or other essential local governmental purposes.
c) The road serves yearlong residents within or adjacent to NFS lands."

31N17 meets none of the above criteria and has less than 10 ADT according to the 2005 Traffic Study.

R5 Regional Engineer George Kulick confirmed the description of "highways" in the Forest Service Manual:

> "In California, we have about 3,000 miles of Forest Highways officially identified. These highways are generally state or county roads that serve to connect National Forests."[14]

The Lassen NF has no written agreement from Caltrans, Shasta or Tehama County that they will assume jurisdiction and maintain this road when re-constructed to forest highway standards. This is 22 miles of road. All three agencies have told ROC that they will not add this road to their systems. **The LNF must justify their continued designation of 31N17 as a forest highway or delete these statements.**

Lines 11 and 12. The Engineering Report says: "The entire road is currently managed by LNF as open only to highway-legal vehicles." **This statement is incorrect.** It should say: This road has had consistent OHV use for decades with no record or knowledge of mixed use crashes. It is a popular connector route to other LNF roads for Mineral residents. The summer 2005 Traffic Study reported non-street legal vehicles were traveling on the road. The local FS law enforcement officer was not citing OHV operators.

31N17, Page 3:

Line 7 - Traffic Service Level. Given the average daily traffic reported in 2005 and traffic observed by LNF staff as reported in Exhibit 2, we believe the traffic service level should be "C" based on FSH 7709.56, Chapter 4 (effective 5/87). A road with a traffic service level of "B," as is the case of 31N17, has the capacity to accommodate up to 25 vehicles per hour. Vehicle counts on 31N17 are far below this at 8 ADT.

Line 8 - Objective Maintenance Level. Again, based upon ROC's observations for the past 5 years, we believe the <u>objective</u> maintenance level should be a 3 per FSM 7732.1 (effective 10/7/08). <u>If</u> and when a forest highway is constructed, it will be a two lane paved highway maintained by others and under their jurisdiction.

Line 9 - Operational Maintenance Level. Based upon the roadway conditions found during the 2005 Traffic Study, the <u>operational</u> maintenance levels ranged from 2 to 3 depending upon the road segment.[15] **The operational ML should be no more than a 2 now based on travel demand**

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[14] E-mail from George Kulick to Elizabeth Norton, dated April 6, 2009.
[15] USDA Forest Service, "Guidelines for Road Maintenance Levels," #0577 1205-SDTDC.

and the LNF's constrained budget to maintain 3,278 miles of system roads. See further discussion on page 4, Box 2, Line 16.

Line 13 -"Any road use agreements . . . ?" **The checkbox should be No.** According to three different years of LNF INFRA roads data (2/14/07, 4/28/08 and 7/9/09), there were no agreements listed for 31N17. Also see comments for Box 1, Line 14 below.

Box 1, Line 14 under Description of Agreements or Encumbrances. When the 2005 study was conducted, LNF engineering staff said there was commuter traffic on the road. Therefore, ROC canvassed the Mineral and Viola areas to identify the extent of commute traffic. We found none. We contacted the Caltrans Maintenance Yard, the National Park Service Headquarters, and the US Postal Service in Mineral. None had any commuters (see Exhibit 4, Appendix D, last page). We obtained written confirmation of this and gave copies to the Forest. Viola is not a community with businesses, thus no commuters. During the traffic counting period of June-September 2005, we recorded one Park Service vehicle. **There is no encumbrance to the road; at least it certainly is not typical.**

Line 15 - Subject to the Highway Safety Act. This determination should be made based on a road's operational maintenance level. According to the ML definitions above, we believe many segments of 31N17 are actually ML 2 (not subject to the Highway Safety Act). See photos in Exhibit 4, Appendix D, count station 12. According to the FEIS, the Forest's road maintenance funds are not likely to increase in the near future to maintain the entire 22 miles of this road to ML 4 standards.[16]

Line 16 - Non-highway legal vehicles permitted? **The "No" checkbox is incorrect.** Non-highway legal vehicle (OHV) travel is a long-standing, accepted practice on 31N17 and all unpaved roads on the Lassen NF. OHV use is permitted by LNF law enforcement officers (barring violations of Division 16.5, California Vehicle Code, and FS regulations). The current Temporary Forest Order No. 06-09-01 (Exhibit 8) prohibits the use of motor vehicle travel off NFS roads, motorized trails, and unauthorized routes as shown in Exhibit A of the Order. The Order does not prohibit non-highway legal vehicle travel on any NFS road. **Therefore, the correct box to check is Yes.** This is consistent with the Modoc NF's interpretation in their engineering analyses (Exhibit 5).

Line 17 - Would motorized mixed use be consistent with State and local laws. **The "No" checkbox is incorrect.** Section 38001(a), California Vehicle Code says:

> "For the purposes of this division, the term 'highway' does not include fire trails, logging roads, service roads regardless of surface composition, or other roughly graded trails and roads upon which vehicular travel by the public is permitted."

The Regional Forester's motorized mixed use policy contradicts the opinion of the California Highway Patrol, the regulatory agency in charge of interpreting and enforcing the California Vehicle Code. CHP says unpaved national forest system roads do not meet the definition of a "highway" per Section 38001(a), California Vehicle Code. In reference to highways, "These have

[16] FEIS, page 79.

generally been paved roads that are part of a local or state designated street and highway system."[17] LNF roads were originally constructed as fire, logging or service roads.

Regional Forester Moore's mixed use policy also directly opposes the Region 6 policy, which concurs with CHP's interpretation for Region 6 national forest lands in California (Rogue River-Siskiyou National Forests). **By the best available authority, OHV travel on unpaved ML 3 and 4 roads is legal under the CVC. Region 5's mixed use policy should reflect this. Forest travel management plans should be consistent with the CVC.**

31N17, Page 4:

Box 1–**Again, the discussion in this box conflicts with CHP's interpretation of Section 38001(a), California Vehicle Code.** The Deputy Commissioner of the California Highway Patrol sent a letter to the R5 Regional Forester on December 19, 2007, which said in part:

> "We are not familiar with all the ML 3 Forest Service roadways, but if they are gravel or other dirt or unpaved roads that have been operating as mixed use roadways for years, it is our belief these roads would fall under the "roughly graded trails and roads upon which vehicular travel by the public is permitted" portion of Section 38001 VC and would, therefore, be eligible for your mixed-use definition." (Underline added for emphasis.)

The Agency has always called routes in the national forest system (NFS) "roads" unless they specifically meet the definition of a "forest highway" in Forest Service Manual 7741.1 (effective 8/24/2000). "Road" is the only term used throughout the FS directives. By its own Manual direction, the Forest Service manages roads, not highways. **Any link to the CVC term "highway" is incorrect.** Only State and local agencies manage highways. The Region is trying to create a new reality by now calling these roads "highways." The Region's mixed use policy has no basis in federal law or regulation, State traffic law or national FS policy that we can find.

The Regional Forester has "now determined"[18] (not CHP) that State traffic law applies to NFS ML 3-5 roads in California's national forests, and they are "highways." **Again, as the designated law enforcement agency regulating and enforcing the CVC on public roads, the Region's mixed use policy must comply with CHP's interpretation.** If not, the Region's policy should not cite the CVC for prohibiting long standing mixed use on unpaved ML 3 and 4 roads.

Box 2–Lines 3 and 4, under Description of road management objectives (RMOs). Only about 1,600 feet of 31N17 is used for access to the Brokeoff Meadows subdivision. Shasta County Road 3P001 provides access to the subdivision from Viola and that is the proper way this should be managed (FSM 7703.3). The principle connector roads between State Route 44, Viola and Mineral are on paved county roads via Paynes Creek, Manton, and Shingletown. **Lines 3 and 4 should be deleted.**

Because of the light amount of traffic that uses the road, we suspect it will be many years before forest highway funding would be available (if ever). The environmental analysis alone will take

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[17] Letter from CHP Deputy Commissioner J.A. Farrow to Regional Forester Randy Moore, 12/19/07 (Exhibit 6).

[18] CHP letter to Marlene Finley, Regional Director of Recreation, Lands, Wilderness and Heritage Resources, dated February 3, 2009.

years. In the mean time, we recommend the LNF assign an operational maintenance level that is commensurate with the actual travel demand and manage it that way.

Box 2–Lines 11 & 12–At times, there will be vegetation management projects that will create the need for commercial hauling. During actual haul, the LNF can and should issue the appropriate temporary road use order to protect the traveling public (FSH 7709.59, 23). Cancel the order when hauling is complete. **Include this discussion here to correctly state the Forest Supervisor can issue temporary orders for public safety.**

Box 2–Line 13–As noted in ROC's previous comments, **the Regional Forester's interpretation of the CVC is incorrect.** This road is not a "highway" under the CVC.

Box 2–Line 16–The engineering report states: "Most of the year, it is currently managed as open only for highway legal vehicles." **This statement is incorrect.** The LNF has permitted non-highway legal vehicle travel on 31N17 for decades with no safety issues. The current Forest Order (No. 06-09-01) also allows OHV use on all LNF roads. We understand the Forest visitor map has, for years, indicated OHV use only on ML 2 roads that have vertical route markers. However, there has never been a NEPA decision to prohibit OHV travel on ML 3-5 roads. Until the Region's mixed use policy letters were issued, starting in 2006, there was no prior regional policy that said ML 3-5 roads are "highways" and that OHV use on "highways" is in conflict with State traffic law. OHV use on unpaved LNF roads is a well-established and permitted practice.

31N17, Page 5:

Page 5, Box 1–Lines 5, 6, 7 and 8 under General Considerations. The engineering report says: "The LNF currently manages this road as a highway, in accordance with the Highway Safety Act." Please note, roads subject to the Highway Safety Act (HSA) have to meet certain safety standards as defined in FSM 7733 and Forest Service Handbook (FSH) 7709.59, 40. They are not "highways" under the CVC definition and the HSA <u>does not</u> prevent the LNF from designating these roads for mixed use. **The inference that 31N17 is a "highway" per the CVC is incorrect.** Does a judge have to resolve this?

The reference to 36 CFR 212.5 leaves out important information: The Rule states:

> "Traffic on roads is subject to State traffic laws where applicable except when in conflict with designations established under subpart B of this part or with the rules at 36 CFR 261."

This means:

> "On NFS roads, designations for motor vehicle use take precedence over conflicting State traffic laws. The Forest Service may designate some NFS roads under Title 36, Code of Federal Regulations, section 212.51 as open to a vehicle class that would normally be precluded from public roads under State law (for example, NFS roads could be designated for all motor vehicles, where State law allows only highway-legal vehicles)."[19]

[19] Forest Service Manual 7731.2, #1 and #3 (effective 10/07/2008).

Box 2–Lines 8 and 9, under Summary of Findings. The LNF's description that 31N17 is a "forest distinctive route, a category used for significant, highly traveled routes through the Forest" **is not substantiated by any vehicle count data** that ROC is aware of. The average daily traffic or ADT on 31N17 from the summer 2005 Traffic Study was 7.86 vehicles with a high of 14 vehicles counted on July 3 (July 4th weekend). The 2005 Study was based on guidance from the UC Berkeley, Institute of Transportation and Traffic Engineering. Manual counts were made between 7 AM and 7 PM on the first Sunday and third Wednesday in June, July, August, and on Labor Day weekend. Recordings were by four hour blocks of time and distinguished between standard passenger cars, SUVs, pickups, highway legal motorcycles, dirt bikes and quads. The protocol statistically measured 85 percent of total traffic flowing.

LNF staff counted 4 vehicles during one traffic count for 90 minutes on June 25, 2008 – 1 administrative vehicle (presumably FS), 2 fire engines (also presumably FS), and 1 other vehicle. **This, obviously, is not a statistically valid traffic count.** Non-commercial use over the last five years does not support the LNF's statement that this is a "highly traveled" road. The LNF's 2006 Roads Analysis says 31N17 has an ADT of 40 although no statistically valid traffic counts were taken to support this number. **The statement in lines 8-9 should be deleted.**

Box 2–Line 13–The 1.9 mile segment of # 31N17 may have an average travel speed of 35 MPH on the straightaway. However, based upon GPS recordings while driving the entire 22 miles between SR 36 and SR 44, several prudent drivers averaged between 22 to 27 MPH. In the LNF's INFRA roads database (7/9/09), the design speed for this road is 20 mph.[20] The average speed for all other roads in the 2005 Traffic Study compared to the 2009 engineering reports is displayed in Table 3. **Although different road segments were studied, speeds in the 2009 LNF engineering reports are consistently higher than those recorded in 2005. They are overstated for the road conditions (rough surface, dust, occasional road hazards, etc.) that cause prudent drivers to be careful and cautious.**

Box 2–Line 16– The crash potential and crash severity factors listed on page 68 of the Forest's FEIS for Travel Management were not individually ranked against a set of benchmarks in any of the engineering reports as ROC suggested in our comments on the Draft EIS. **As a result, all the reports lack scientific objectivity and are not credible.** How is the public to understand what risk factors were assigned and whether or not the same criteria were used on other roads? These risk factors were individually rated for each road to determine crash probability and crash severity in the 2005 Traffic Study. For 31N17, the Study concluded the probability of an accident was low and crash severity was also low. The previous Forest Supervisor proposed to accept mixed use (in Exhibit 4).

31N17, Page 6:

Page 6, Box 1–Lines 7, 8 and 9 under Operator Considerations. This statement does not add any significance to the "considerations" section except imply a bias against non-highway legal

[20] Forest Service Handbook 7709.56, Chapter 4.25, 1 (effective 5/87). "Design speed is the speed determined for the design and correlation of the physical features of a road or road segment that influence vehicle operation. It is the maximum safe speed that the design vehicle can maintain over a specified segment of road when conditions are so favorable that the design features of the road, rather than operational limitations of the vehicle, govern." The most commonly used design vehicle was an 18 wheel logging truck.

vehicles and children under 18 years of age. Lines 10-14 restate the law per the CVC and are factual and supportable. **Delete lines 7-9.**

Box 1–Lines 15 and 16–The analysis says: "The current use on 31N17 appears to be consistent with State law and Forest Service policy for operational maintenance level 4 roads." **This is incorrect. OHV use is occurring on this road and, according to R5 policy, this is <u>inconsistent</u> with the CVC.**

Given the ADT, vehicle class and mix or composition of traffic on 31N17, we seriously question the Forest's decision to keep this road at an operational ML 4 and prohibit continued OHV travel. During the summer 2005 Traffic Study, 54 vehicles were counted of which only 2 were standard passenger cars (4%). The rest were street legal, high clearance vehicles (81.5%) or non-highway legal vehicles (15%). Consider the factors listed in FSH 7709.59, 62.31 when selecting maintenance levels. It makes little sense to keep roads at a higher maintenance level if standard passenger cars are a minor component of the traffic. ROC believes "prudent drivers in standard passenger cars" with P-rated tires almost always stay on paved roads. The primary vehicle class using the road should drive the assignment of <u>operational</u> road maintenance levels and not vice versa.

Box 2 under Crash History–We also found no record of motorized mixed use accidents on this road. We did note the LNF included two accident references on the other roads evaluated in these reports. **These should be deleted.** Neither one of them was a motorized mixed use accident. A motorized mixed use accident is when a street-legal and a non-street legal vehicle crash together. There have only been 11 of these documented in the entire Region (California) in the past 15 years and four of these were caused by government operators (Exhibit 7).

31N17, Page 7:

Page 7, Box 1 under 3. Observed traffic volume and type. **The form's use of the term "passenger car" is misleading.** Does it mean passenger carrying vehicles? The photographs show a high clearance pickup; we assume that is the one administrative vehicle LNF staff listed. The pickup is a passenger carrying vehicle, but not a standard passenger car. It is a high clearance vehicle. Two fire engineers were observed; these are not standard passenger cars. FSM 7705 definitions under "Road Subject to the Highway Safety Act" refer to standard passenger cars, i.e., Ford Taurus, Chevrolet Malibu, Chrysler 300, Toyota Camry, etc. Pickups and SUVs are high clearance vehicles. Most of the vehicles observed by LNF staff in the engineering reports appeared to be high clearance vehicles, not standard passenger cars. **The LNF's survey form should be amended to record vehicle class similar to the form used in the 2005 Traffic Study.**

The traffic count data LNF staff collected during the preparation of these engineering reports are really meaningless as all were sampled for ½ to three hours only on one random day of the year (except for 32N22). At least 12 of the road reports have no date listed so ROC is unsure if the listed traffic counts were actually taken. No vehicles were recorded at 15 road stations (out of 32 or 47%) during the count day. Vehicles classes were not consistently counted and the descriptions varied widely. Monitoring road traffic should be based on scientific (traffic engineering) procedures.

In 2005, the Lassen National Forest Supervisor asked ROC to perform a summer long traffic study and prepare an Engineering Report for certain roads on the Forest. **LNF staff should have considered this traffic count data for those same roads.**

For # 31N17, LNF staff observed 4 vehicles during 90 minutes (3 of which appear to be administrative vehicles). The 2005 count (ADT of 7.86) was conducted using a statistical random sampling method for the major summer travel season, including two holidays, when vehicle use would be highest. ROC believes that, if anything, traffic is slightly lower due to the economic recession and higher gas prices. Less than 10 vehicles per day, in our opinion, do not justify an operational maintenance level of 4 or a traffic service level of "B."

Box 2 under Speed. The LNF's INFRA roads database (7/9/09) indicates 31N17 is a single lane, gravel road with a design speed of 20 mph. The existing surface condition of the roadway is the controlling factor related to speed. Many sections of 31N17 are roughly graded with exposed rocks, potholes and wash boarding. Operators know this and drive accordingly. Engineering judgment and common sense tells us no person or operator wants to be hurt or to do damage to their motor vehicle. **The LNF's recorded speed of 35 mph is overstated and needs to be corrected.** As indicated above, estimating how fast one can go on a straightaway is not a scientific way to establish travel speed, especially when two vehicles approach each other. When this happens, the human reaction is for operators to reduce their speed or even pull over and stop to allow one vehicle to slowly pass due to dust (and out of courtesy). **Two vehicles do <u>not</u> pass each other at 35 mph.** Note: several Modoc NF engineering reports documented average speeds of 35 mph or less with low crash probability and low crash severity.

Box 3–under Road Surface Type. The 2005 Traffic Study used an average width of 16 feet for the entire road. The LNF engineering report shows 15-20 feet for the 1.9 mile surveyed road segment. Consider the safety situation of two vehicles approaching each other on a 15-20 foot wide road. A pickup, passenger car or FS fire engine are about 7-8 feet wide. A quad is 4 feet wide. Put them side by side and you need 11 or 12 feet. Prudent drivers (synonymous with "cautious driver in the INFRA data dictionary) can safely pass each other on a 15-20 foot wide road. Prudent drivers also slow down and pull over or stop when approaching another vehicle on dusty NFS roads. And they generally drop back if someone is preceding them and creating dust. **Based on the road's reported widths, mixed use can safely continue.**

Box 5–under Other Roadway Factors. What about stopping sight distance due to curve radii, vegetation encroachment and surface conditions? **These are measurable safety factors and should be discussed** (FSH 7709.56, Chapter 4.25). **All the roadway factors listed here indicate mixed use can safely continue.**

31N17, Page 8:

Page 8, Box 1–Second sentence. This road is closed by snow as much as or for an even longer period in a year than is SR 89 through the National Park. The Park plows SR 89 and the FS does not plow # 31N17. **This statement is erroneous and should be deleted.**

Box 3 under 9. Risk without mitigation if designating the roadway "open to all motor vehicles." **The assignment of probability and severity is subjective.** Several factors are listed to assess

MMU risk. In our response to the Draft EIS, ROC asked the LNF to establish benchmarks for each factor (between low and high) so all roads could be judged in a uniform way as shown in the 2005 Traffic Study. We have no way to objectively assess the LNF's assignments. **They differ significantly from the documentation in the 2005 study. We can only assume they are biased. Each factor should be rated against measurable benchmarks.**

31N17, Page 9:

Box 1 under Alternatives and mitigation measures. The engineering report states: "For all situations, the following mitigation measures apply: Coordinate with other agencies to improve enforcement consistency." There was no coordination with County Boards of Supervisors or Public Works Directors to ensure compatible road management direction. The LNF's road engineering reports and mixed use conclusions stand in stark contrast to what is currently authorized on unpaved county road systems that connect to LNF roads (Exhibit 3). This will be an enforcement nightmare. **The LNF should coordinate with county officials to have consistent road management strategies on their connecting road systems.**

Box 1 under Alternative 1: The engineering report says: Continue to manage the road in accordance with maintenance level 4 standards. As of February 14, 2007, 31N17 had an operational maintenance level of 3 (LNF INFRA Roads database). By April 18, 2008, the road's operational maintenance level in INFRA was upgraded to ML 4. Between this timeframe, there must have been considerable road improvements along the road's entire 22 mile length to raise the operational maintenance level from a 3 to a 4. ROC is requesting this information as our observations on the ground do not support the increase in operational maintenance level for the entire road. **There is certainly no travel demand to maintain 31N17 as a ML 4 even during short periods when there is temporary log or chip haul.**

31N17, Page 10:

Page 10 under Alternative 2: The engineering report says: Designate the road segment as "open to all motor vehicles', including highway legal and non-highway legal vehicles. Continue to maintain the road in accordance with maintenance level 4 standards."

Page 10 under Alternative 2, Approximate Implementation Cost, the report then states: "This does not account for the additional increase in long-term annual maintenance costs associated with maintaining these critical safety corridors." **The report does not describe nor validate these increased costs and should be deleted.**

The FEIS says: "Mixed use changes that do not involve a change in maintenance level will not affect resources since the change is purely administrative and does not involve any changes to conditions on the ground."[21]

We understand there will be "one time implementation costs" to sign roads open to mixed use and for database updates.[22] The FEIS referenced public comments that said ". . . some types or

[21] FEIS, page 61.
[22] LNF FEIS, page 92 and Table 20 on page 94.

use result in higher maintenance costs due to resource damage caused by such uses and how certain mixes of use, if allowed in the same areas, would increase the need for maintenance and administration of those areas."[23] But the FEIS does not mention any specific long-term annual maintenance costs associated with "maintaining these critical safety corridors." The Modoc NF FEIS said OHV use on ML 3 roads is not expected to have any additional cost.[24]

Page 10 under Alternative 3. The Engineering Report says: "This would require removing culverts and ditches, reconstructing the template and narrowing the roadway." Please provide us with the specific FSM reference or other written FS direction that requires this. **This statement is erroneous. There is nothing in the FSM that requires this that we are aware of.**

Conclusions

1. Region 5's motorized mixed use policy must comply with CHP's explanation of the California Vehicle Code and Region 6 's acceptance of CHP's letter.

2. The roads or road segments in the LNF engineering reports specifically meet Section 38001(a), CVC, exemption for non-highway legal vehicles in three ways: 1) they began existence as logging, fire or service roads; 2) periodic logging traffic is probable in the future; 3) they are considered roughly graded.

3. All of these roads have had some OHV travel for decades and there is no record of any mixed use crashes. Therefore, the statistical probability of a future crash is low. If mixed use is not a problem now, why make it a problem?

4. If the Regional Forester had accepted CHP's interpretation of the California Vehicle Code and complied with Forest Service national direction discussed in FSH 7709.55, 30.3, item #5 and FS EM-7700-30, 12/05, Documentation of Engineering Judgment (page 2), none of these costly engineering reports would have been necessary.

5. Traffic surveillance has not been done on the LNF following FS Handbook direction since the 1970s and 1980s, thus knowledge of actual travel demand is just a guess. See FSH 7709.59, Chapter 51 (effective 2/5/09). LNF road maintenance levels do not sufficiently reflect travel demands today because no statistically valid traffic surveillance has been done for almost 30 years (except in summer 2005).

6. Funding constraints imply good road management decisions must be based upon the LNF's current capability to maintain the road to its identified road management objectives (RMOs). There is no information in the engineering reports if the roads analyzed currently meet their RMOs. The LNF has $182 million in deferred road maintenance backlog according to their Final Environmental Impact Statement.[25] Annual maintenance needs for the Forest's 3,278 mile road system is $14,844,719 compared to an average annual road maintenance budget of $1,089,000.[26] This extreme shortfall

[23] LNF FEIS, pages xix and xx.
[24] Modoc FEIS, page 45.
[25] FEIS, pages xviii, 7 and 93.
[26] LNF FEIS, pages 79 and 93.

prevents the LNF from fully meeting their road management objectives. We have to wonder why 31N17 (and similar roads) has an assigned operational and objective maintenance level of 4 when the traffic volume is so low and the vehicle class is predominantly high clearance.

7. For the 31N17 road, travel demand only justifies an operational ML 2 with an emphasis on resource protection, i.e. cleaning culverts, some brush removal and spot pulling of ditches. Also see FSH 7709.59.62.32, item 2, for signing to alert drivers to the roadway conditions they can expect.

8. When commercial traffic is using a NFS road, the LNF has the option of temporarily raising the operational maintenance level for haul purposes. The LNF Forest Supervisor can also issue a road use order to temporarily prohibit incompatible public travel. Cancel the order upon completion of hauling and lower the operational maintenance level.

9. ROC recommends the LNF and the Region agree on and establish acceptable definitions for vehicles by class, low and high traffic volume, (ADT) and average travel speed and equate these to the maintenance levels and accident risk assessments.

10. Tables 1 and 2 on the next pages reflect the differences between the Modoc and Lassen National Forest Travel Management Plans.

Forest Travel Management Plan Impacts
(1/27/10 Forest Data)

The table below is a snapshot of the proposed changes from the existing condition on the Lassen National Forest. The reduction of OHV recreation opportunities (especially for non-highway legal vehicles) is significant as described in the Lassen NF Final Environmental Impact Statement. The proposed LNF Travel Management Plan is a "minimalist" alternative when compared to the final Travel Management Plan from the adjacent Modoc National Forest.

Table 1 ***Lassen National Forest***	*DEIS, Alt. 1 – No Action (**or Current Status Quo**)*	*FEIS Modified Alt. 5 – Proposed Travel Plan*	*FEIS Modified Alt 5 - Percent of Forest Total from Alt. 1*
Acres available for cross-country travel	1,072,500	0	0%
Acres of open riding areas available	26	0	0%
Miles of unauthorized roads and trails added to the national forest transportation system	1,089	56	5.1%
Number of dispersed recreation sites with motor vehicle access	504	65	12.9%
Miles of unpaved ML 3-4 roads proposed for mixed use (all vehicles)	Mixed use currently occurs on most 693 miles of unpaved ML 3-4 roads 1/	9.3	1.3%
Miles of unpaved ML 3-4 roads converted to high clearance roads to allow mixed use (all vehicles)	Mixed use currently occurs on most 693 miles of unpaved ML 3-4 roads	79.6 2/	11.5%

1/ Maintenance level (ML) 3, 4, and 5 roads are considered "highways" by the Region 5 Regional Forester. Therefore, he says these roads are subject to the CVC. The CHP and Region 6 Regional Forester do not concur with his interpretation.

2/ According to the Lassen NF FEIS, these converted roads segments would not be available for motorized mixed use or displayed on a map until they weather out. The FEIS indicates this could take 10 years or more before the segments look like high clearance roads. In ROC's opinion, these miles are bogus; they will not show up on any maps as open for use by non-highway legal vehicles and may never exist.

The Modoc National Forest Supervisor issued his decision for the Forest's Travel Management Plan on November 12, 2009.

Table 2 ***Modoc National Forest***	*DEIS, Alt. 1 – No Action (**or Current Status Quo**)*	*FEIS – Adopted Travel Plan Decision*	*FEIS Modified Alt 5 - Percent of Forest Total from Alt. 1*
Acres available for cross-country travel	1,609,466	0	0%
Acres of open riding areas	0	0	0%
Miles of unauthorized roads and trails added to the national forest transportation system	491	336	68.4%
Number of dispersed recreation sites with motor vehicle access	1,168	1,154	98.8%
Miles of unpaved ML 3-4 roads proposed for mixed use (all vehicles)	Mixed use currently occurs on most 573 miles of unpaved ML 3-4 roads 1/	513	89.2%
Miles of unpaved ML 3-4 roads converted to high clearance roads to allow mixed use (all vehicles)	0	0	0%

1/ Maintenance level (ML) 3, 4, and 5 roads are considered "highways" by the Region 5 Regional Forester. Therefore, he says these roads are subject to the CVC. The CHP and Region 6 Regional Forester do not concur with his interpretation.

Lassen NF 2009 Engineering Reports for Motorized Mixed Use

Exhibit 1 - Table 3

Road #	*Obj ML*	*Oper ML*	*2008 Traffic Count for Engineering Reports*	*Count Date and Time*	*Lassen NF 2006 Roads Analysis - Estimated ADT 1/*	*2005 Traffic Count (ADT)*	*2009 Prudent or Cautious Driver Speed (mph)*	*INFRA Roads Design Speed (mph)*	*2005 Traffic Study Speed (mph)*	*ROC Notes*	
28N70	3	3	1 admin. Suburban	6/10/08, 2 hrs			25-30	15		missing text	
29N03	3	3	3 civilian	not listed	40		35	20		no segments on map or photos	
29N18	3	3	2 PUs, 1 SUV	6/28/08, 2 hrs	25		30-40	25		3 segments	
29N48	3	3	2 pass cars, 1 mtn biker	6/10/08, 3 hrs	25		30	20		2 segments	
30N07	3	3	4 civilian	not listed	25		45	25		no segments on map	
30N16	3	3	none	6/25/08, 1hr	25	5	30	20	15		
31N17	3	3	2 pass cars (1 admin), 2 fire engines, 2 mtn bikers	6/25/08, 90 min	40	8	35	20	27	missing text	
32N02	4	4	none	not listed			45	25		missing text	
32N02	3	4	1 PU	7/30/08, 1 hr			40	25		no map	
32N08	3	3	1 pass car, 2 water trucks	6/25/08, 30 min	40		40	15			
32N09	3	3	2 civilian	not listed	25	11	40	20	20	combined in one rpt	no clear map or photos
32N09A	3	3	none	not listed			40	15		combined in one rpt	no clear map or photos

Road #	Obj ML	Oper ML	2008 Traffic Count for Engineering Reports	Count Date and Time	Lassen NF 2006 Roads Analysis - Estimated ADT 1/	2005 Traffic Count (ADT)	2009 Prudent or Cautious Driver Speed (mph)	INFRA Roads Design Speed (mph)	2005 Traffic Study Speed (mph)	ROC Notes	
32N10	4	4	2 pass cars on segment from SR 44 to rest area	6/25/2008, 30 min	25	16	45	20	20	count was observed on the entrance road to a Caltrans rest area and is invalid	mixed use should not be proposed on the rest area entrance road
32N12	3	3	1 Jeep, 1 BLM fire engine	6/25/08, 1hr	40	16	30-35	20	10	2 segments	missing text
32N13	3	3	none	not listed	15	16	15-25 seg 1, 35 seg 2, and 35-40 seg 3	20	20	3 segments	no photos, missing text
32N21	3	3	4 pass cars (3 SUVs)	6/28/2008, 3 hrs	25	17 2/	45	20	20		
32N22	3	3	none	6/25/08, 45 min and 6/29/08 for 40 min	25		40	20		2 segments	missing text
32N60	3	3	none	6/29/08, 105 min	25		40 seg 1 and 35 seg 2	20		2 segments	
32N73	3	3	4 PUs	7/29/2008, 1 hr	7		15	15		no photos	
33N02	3	4	none	7/30/08, 1hr	40		45, not supported by photos	15		2 segments	no segments on map
33N06	3	3	none	7/29/08, 1 hr			30	15		segment not on map	
33N08	3	2	none	7/30/08, 1 hr	15		25	20		segment not on map	poor photos of rd
33N13	3	3	1 FS fire vehicle	7/30/08, 1hr			40	20		segment not on map	no photos

Road #	Obj ML	Oper ML	2008 Traffic Count for Engineering Reports	Count Date and Time	Lassen NF 2006 Roads Analysis - Estimated ADT 1/	2005 Traffic Count (ADT)	2009 Prudent or Cautious Driver Speed (mph)	INFRA Roads Design Speed (mph)	2005 Traffic Study Speed (mph)	ROC Notes	
33N15	3	3	several comercial rd. maintenance vehicles and 1 FS research vehicle	7/30/08, 1 hr	15		40	15-20		segment not on map	no photos
34N13	3	3	1 admin. PU, 1 grazing permittee PU	not listed	15		30-40	20			
34N29	3	3	none	not listed	15		35 seg 1; 30 seg 2	15			
34N34	3	3	none	not listed	15		40	20			
35N04	3	3	none	7/30/08, 1 hr			25	15		segment not on maps	no photos
35N08	3	3	1 agency PU	7/30/08, 1 hr	25		45	10 - 20 mph		segment not on map	no photos
35N10	4	3	none	not listed	25		30-40	20		4 segments	
35N10	4	3	none	not listed	25		30-40	20		missing text	
36N18	4	3	none	not listed	25		35-40	20		missing text	
36N18	3	3	3 FS vehicles, 3 log trucks	7/30/08, 1 hr	25		45	20		no photos	
TOTAL Vehicles Counted			**46**								
Total Gov't or Commercial Vehicles			**18**								
Percent Gov't or Commercial Vehicles			**39%**								

1/ This is estimated ADT, no statistically valid traffic counts were taken.

2/ ADT is based on 2000-2005 National Park Service traffic count data on the Butte Lake Road.