

# **Exhibit 5**

**Modoc National Forest**

**Engineering Reports**

**on Four Proposed Motorized Mixed Use Roads**

Final Environmental Impact Statement  
for Motorized Travel Management

November 12, 2009

## Appendix M: Mixed Use

Mixed use on ML 3 roads for Alternative 5 – Modified has been approved by the Regional Forester for roads over 3 miles in length, see below. Mixed use for ML 3 roads less than 3 miles in length has been approved by the California Highway Patrol, see below.

Regional Forester's approval letter:

File 7700 Date: August 26, 2009  
Code:  
Route (2350)  
To:  
Subject: Approval of Mixed Use Analysis on the Modoc National Forest  
To: Forest Supervisor, Modoc National Forest

I have received your April 24, 2009, 7700/2350 memo regarding Motorized Mixed Use on roads maintained for passenger cars and your detailed individual Mixed Use Analysis reports. Based on the recommendations of the Director of Engineering and in concurrence with the Office of General Council (OGC), I am approving the 51 roads proposed for Mixed Use as requested. In all cases, the Mixed Use Analysis for each road indicated there is a low probability of a moderate severity crash.

Prior to opening these roads to mixed use, the Forest shall develop and implement a sign plan, specifically addressing Mixed Use. The Forest shall use the Manual of Uniform Traffic Control Devices approved "Share the Road" warning sign, with an appropriate yellow diamond warning sign showing an ATV, as part of your signing safety plan. These warning signs shall be placed at strategic points throughout the Forest, so the recreating public has a clear understanding of where they can operate ATV's and where they cannot. The Forest should strongly consider adding additional regulatory signing for routes, where mixed use is specifically not allowed, to avoid confusion. All signing shall be in conformance with the latest addition of the Manual of Uniform Traffic Control Devices.

The Forest Supervisor shall inform the Regional Forester of any accidents on this road involving off-highway vehicles. The Regional Forester's approval for Mixed Use will be reconsidered if there are accidents on roads involving mixed use.

If you have any questions regarding mixed use, please contact George Kulick, Director of Engineering at 707-562-8841.

/S/ ANGELA V. COLEMAN (FOR)  
RANDY MOORE  
Regional Forester

California Highway Patrol's approval letter:

State of California

Business, Transportation and Housing Agency

**Memorandum**

Date: July 22, 2009

To: Northern Division

From: **DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**  
Assistant Commissioner, Field

File No.: 002.A9293.09-0672.051

Subject: **PROPOSED COMBINED-USE ROADWAY DESIGNATION - MODOC  
NATIONAL FOREST**

The Modoc National Forest has requested combined-use highway designations for specific Maintenance Level 3 roadway segments within the Forest. It is understood that the proposed combined-use roadways are within the jurisdictional boundaries of Alturas, Redding, and Yreka Areas. All of the Areas have agreed the proposed segments will not pose significant safety-related concerns provided the Alturas Area's recommendations for signage are completed.

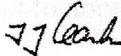
The request has been reviewed and is approved contingent upon completion of the following signage recommendation:

Alturas Area recommended that information/cautionary signs be posted at the entrance to the improved campgrounds which include: Ash Creek, Big Sage, Cave Lake, C Reservoir, Cedar Pass, Jane's Reservoir, Patterson, Pepperdine, Plum Valley, Upper and Lower Rush Creek, Soup Springs, and Stowe Reservoir campgrounds.

Additionally, Alturas Area recommends a sign be posted at the entrance to Lily Lake day use, due to limited sight distance and moderate use.

Alturas Area provided a thorough analysis of the proposed plan and I'm satisfied upon the completion of the recommended signing, public safety will be ensured.

If you have any questions, please contact Captain Paul Congi or Ms. Sue Barsanti of our Research and Planning Section at 916-657-7237.

  
T. J. CLARK  
Assistant Commissioner

*Safety, Service, and Security*

CHP SWP (Rev. 11-98) 0P1078

002/2002

08/11/2009 TUE 14:28 FAX 530 241 1590 101 LR3380-CLERICAL --- ALTURAS AREA

The individual engineering reports for the ML 3 roads to be included for mixed use are in the project record; these files are very large and not presented here.

**Table M-1. Crash Probability and Crash Severity for Mixed Use on ML3 NFTS Roads**

ID	miles	ID	miles	ID	miles	ID	miles	Crash Probability	Crash Severity
42N10A	0.78	44N77	5.41	43N24	0.63	43N24B	0.18	Low	Medium
38N54	7.31	39N01	1.12	40N33	0.49	48N81	0.44	Low	Medium
38N54	0.19	39N01	1.73	40N33	3.92	48N08E	0.52	Low	Medium
42N03	12.41	39N01	0.51	40N33	4.31	45N04	0.26	Low	Medium
38N46	6.88	39N01	1.83	40N25	0.30	47N11	0.37	Low	Medium
42N56	5.56	39N01	3.67	39N15	0.95	47N11	2.84	Low	Medium
38N54	9.02	39N01	0.08	39N15	0.57	43N14	0.65	Low	Medium
43N07A	0.10	39N01	1.92	43N48	2.27	40N13	2.97	Low	Medium
38N54	3.13	48N08	4.46	41N44	0.43	48N08E	0.08	Low	Medium
42N56	5.90	48N08	4.65	42N05	12.97	40N05A	0.11	Low	Medium
38N04	10.15	44N77	3.58	42N31	1.49	40N05	1.65	Low	Medium
42N10	2.73	46N30	0.18	42N31	4.87	45N04	1.39	Low	Medium
38N54	0.50	46N30	7.74	42N31	4.67	39N50	7.78	Low	Medium
38N46	3.48	46N30	2.06	41N44	0.15	39N50	1.42	Low	Medium
42N56	5.75	46N30	3.04	41N44	6.37	43N24A	0.29	Low	Medium
38N54	0.28	46N30	6.84	41N44	0.10	40N37	5.92	Low	Medium
42N56	7.59	46N30	0.25	40N11	7.64	40N22R	0.02	Low	Medium
42N68	0.16	46N30	4.65	40N11	0.35	40N12	1.48	Low	Medium
44N77	1.09	46N30	2.42	40N05B	0.13	43N12	3.48	Low	Medium
48N70	0.51	43N54	3.64	39N01	2.85	40N25AA	0.05	Low	Medium
48N70	6.43	46N10	7.17	48N80	0.14	42N79	0.69	Low	Medium
48N7	0.2	46N10	1.9	42N4	0.1	38N54	0.1	Low	Medium

ID	miles	ID	miles	ID	miles	ID	miles	Crash Probability	Crash Severity
0	3		9	6	7	E	5		m
45N35	1.72	46N10	1.59	42N46	0.09	43N47B	0.35	Low	Medium
45N35	1.41	46N10	7.87	42N46	3.00	39N12	2.91	Low	Medium
41N11	5.15	46N10	0.90	42N31	7.33	43N21	2.47	Low	Medium
45N35	2.68	46N10	10.97	44N59	0.22	43N17	1.11	Low	Medium
45N35	0.11	44N02	8.25	46N63	2.95	43N17	1.92	Low	Medium
45N35	0.35	46N06	8.42	44N19	1.37	39N28	0.16	Low	Medium
37N07	0.07	46N06	0.23	48N11	2.50	40N24	8.27	Low	Medium
44N03A	0.50	46N06	2.07	48N11	3.71	38N07	3.98	Low	Medium
48N28	2.43	47N16	0.22	40N27	6.24	38N07	0.71	Low	Medium
44N11	8.27	47N16	0.04	44N60	0.19	40N12	1.48	Low	Medium
44N11	6.48	44N01	0.30	44N32	0.70	40N12	3.55	Low	Medium
43N42	1.08	44N01	1.38	47N37	3.49	40N41	1.19	Low	Medium
43N99	1.33	44N01	7.61	40N25A	0.02	41N11	2.12	Low	Medium
43N99	1.23	44N01	1.51	46N09	0.06	41N11	4.84	Low	Medium
43N99	3.17	44N01	2.16	46N08	1.46	41N11	5.55	Low	Medium
43N42	0.69	37N11	0.87	46N06A	1.62	41N06	0.22	Low	Medium
46N10	0.10	39N28A	0.23	45N35A	0.25	47N06	12.33	Low	Medium
42N23	7.41	39N01C	0.52	45N04	4.81	47N06	0.62	Low	Medium
37N11	4.04	38N47	0.24	43N36	1.26	48N70	3.26	Low	Medium
41N34	0.19	43N14	3.65	43N36	5.57	48N70	1.94	Low	Medium
40N22	4.89	46N14B	0.05	42N24	1.57	45N09A	5.54	Low	Medium
40N22	1.60	46N14A	0.10	40N01	0.32	43N48	0.31	Low	Medium
40N22	2.6	38N30	0.0	40N4	0.2		0.4	Low	Medium

ID	miles	ID	miles	ID	miles	ID	miles	Crash Probability	Crash Severity
2	0	AB	6	6A	3		0		m
40N2 2	10. 93	48N19 A	0.2 3	41N4 7	4.2 6		0.3 8	Low	Medium
				47N9 7	0.7 7		0.1 9	Low	Medium
				45N0 9	5.6 8		2.2 7	Low	Medium
							1.9 0	Low	Medium
							7.0 9	Low	Medium

Further analysis for each of the roads can be found in the mixed use analysis document in the project record. The other factors considered were 1) Operator considerations 2) Crash history 3) Traffic volume and type 4) Speed 5) Road surface type 6) Intersections with other roads and trails 7) Other roadway factors and 8) roadside conditions.

There is no crash history on these roads on the Forest. The roads are all crushed aggregate and the speed is 35 mph or less. Use is very low and there is not an expectation that population or use will grow in the near future.

# Engineering Report

## Modoc National Forest

### Warner Mountain Ranger District

#### Analysis of Road # 40N24

#### for Motorized Mixed Use Designation

Prepared by:

\_\_\_\_\_  
Forest Engineer

Date: \_\_\_\_\_

Concurred by:

\_\_\_\_\_  
Forest Supervisor

Date: \_\_\_\_\_

Forest: **Modoc** District: **Warner Mountains**

Road Number: **40N24** Name: **Cherry Creek (also called Soup Springs Loop)**

Beginning Mile Post: 0.0 Ending Mile Post: 8.3

Traffic Service Level:  A  B  C  D

Objective Maintenance Level:  1  2  3  4  5

Operational Maintenance Level:  1  2  3  4  5

Maintenance by: FS Non-Forest Service ROW or jurisdiction?  Yes  No

Any road use agreements, maintenance agreements, or other encumbrances?  
 Yes  No

Description of agreements or encumbrances: None (does not cross private lands)

Subject to Highway Safety Act?  Yes  No

Non-highway-legal vehicles currently permitted?  Yes  No

Is motorized mixed use consistent with State and local laws?  Yes  No

The California Vehicle Code OHV Provisions [38001(a)] includes a statement that 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".

Local Officials including the Modoc County Sheriff and others do not consider these roads to be highways for this purpose.

In a letter dated February 10, 2009, the Modoc County Board of Supervisors stated "We appreciate the extra effort put forth by the Forest to designate additional miles for mixed use. We recognize there was significant pressure to do otherwise. The vehicle usage on the vast majority of the Forest roads is minimal and allowing passenger vehicles and ATVs to share the roads is appropriate. Additionally there is no history of accidents or injuries to warrant restricting use.

The County supports all efforts to prohibit mixed use where there are valid safety concerns."

Description of road management objectives, existing use, and proposed use: The goal for recreation (including motorized mixed use of vehicles) in the Forest Plan is that the over all management of the Forest results in a full range of recreation opportunities, ranging from primitive to modern recreation settings. Provide and manage a Forest Transportation System (roads and trails) to accomplish resource management objectives (including opportunities) while protecting resource values. This road is currently open to all motor vehicles. The primary use is recreation. Other uses include logging, fuelwood cutting, grazing, hunting and fishing. It is not feasible to reduce the maintenance level of this road, due to the terrain, the existing horizontal and vertical alignments, and the road width and surfacing type. No changes are proposed for the use of this road.

## Summary of Findings:

Motorized mixed use currently occurs on all of this road. There is no accident history. Traffic volumes are low. Sight distances are generally long. This road is wide with adequate runout space in the ditches or shoulders. Anticipated average speeds are 35 mph or less. These factors lead to the conclusion that the probability of a crash is low, and the severity of a crash is likely to be moderate

## Factors Considered:

### 1. Operator considerations:

Prudent operators in compliance with the California Vehicle Code and other applicable laws and regulations is assumed.

### 2. Crash history:

There is no crash history available for this road.

### 3. Traffic volume and type:

Non-highway-legal vehicles:

< 12 inch tread width    < 50 inch tread width    >50 inch tread width

Highway-legal vehicles:

Passenger cars    Commercial vehicles    Recreation vehicles (RV's)

Traffic on the Cherry Creek Road 40N24 comes off from the West Warner Road 42N05. No traffic counts were done on the Cherry Creek Road specifically. However traffic will be less than on the West Warner Road.

Traffic counts were done at the intersection of the West Warner Road 42N05 and the Parker Creek Road 42N31. Almost all of the traffic using the roads in this area enter or leave the area through this intersection. Traffic was also counted on the Deep Creek Road at the Forest Boundary. Traffic was counted during ten separate periods of 1 to 4 hours. The time periods counted included mornings and evenings, and weekdays and weekends. Traffic was counted for a total of 22 hours. 33 vehicles were counted, for an average of less than 1.5 vehicles per hour at the Parker Creek location and less than one vehicle per hour in Deep Creek. Of the 33 vehicles counted there was one motorcycle, 1 bicycle, and the remainder were cars, pickups, or SUV's. See traffic count summary in

Appendix B & details in Appendix C traffic count log.

4. Speed - Anticipated average speed (85<sup>th</sup> percentile):

Anticipated average speeds on this roads is 35 mph or less.

5. Road surface type:

This road is surfaced with crushed aggregate.

6. Intersections with other roads and trails:

Numerous intersections along the route. See attached map.

7. Other roadway factors:

This road is relatively wide. It was constructed as single lane roads, and is shown on our inventory as a single lane road. However past maintenance practices have widened this road to approximately 18 to 20 feet. Sight distance is adequate for the anticipated average speed on this road.

8. Roadside conditions:

This road has an inside ditch that can be driven into with most vehicles in an emergency.

9. Risk without mitigation:

Crash probability:  High  Med  Low

Crash severity:  High  Med  Low

**Mitigation Measures:**

A sign plan will be developed after the travel management decision is made on the Forest. Share the Road signs may be appropriate at entry points to the Forest.

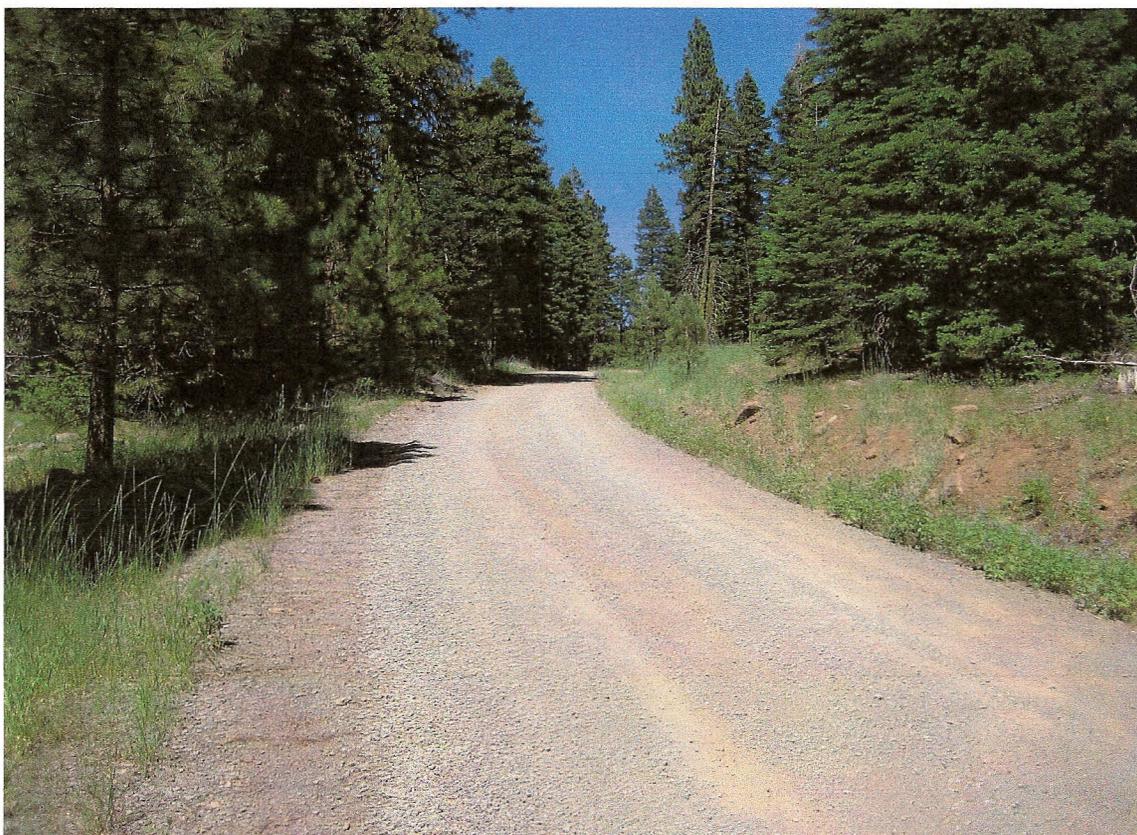
**Conclusion:**

The Modoc National Forest has the lowest recreation use of any National Forest in the National Forest System. We receive much lower motor vehicle use on our Maintenance Level 3 (ML3) and 2 (ML2) roads than any other Forest in Region 5. This is due primarily to our sparse population (Modoc County has 9000 people in the entire county), long distance to population centers and a long distance to popular interstate road systems.

Both the Modoc County Sheriff and the local California Highway Patrol (CHP) are not aware of any OHV accidents that have occurred on the Forest. The CHP does not patrol on our ML3 roads and only responds if there has been an accident.

OHV use on this Forest has not grown nearly as fast as other locations in California as demonstrated by our survey. Therefore it is reasonable to continue to provide this opportunity.

Currently mixed use is allowed on this road. Nothing found during this analysis indicates that a change to the current use is needed.



# Engineering Report

## Modoc National Forest

### Doublehead Ranger District

#### Analysis of Road # 44N77

#### for Motorized Mixed Use Designation

Prepared by:

\_\_\_\_\_  
Forest Engineer

Date: \_\_\_\_\_

Concurred by:

\_\_\_\_\_  
Forest Supervisor

Date: \_\_\_\_\_

Forest: **Modoc** District: **Doublehead**

Road Number: **44N77** Name: **Bench**

Beginning Mile Post: 0.0 Ending Mile Post 10.5

Traffic Service Level:  A  B  C  D

Objective Maintenance Level:  1  2  3  4  5

Operational Maintenance Level:  1  2  3  4  5

Maintenance by: FS Non-Forest Service ROW or jurisdiction?  Yes  No

Any road use agreements, maintenance agreements, or other encumbrances?  
 Yes  No

Description of agreements or encumbrances: 0.5 miles on the south end of this route crossed private land without a right of way. This section will not be designated on the Motor Vehicle Use Map.

Subject to Highway Safety Act?  Yes  No

Non-highway-legal vehicles currently permitted?  Yes  No

Is motorized mixed use consistent with State and local laws?  Yes  No

The California Vehicle Code OHV Provisions [38001(a)] includes a statement that 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".

Local Officials including the Modoc County Sheriff and others do not consider these roads to be highways for this purpose.

In a letter dated February 10, 2009, the Modoc County Board of Supervisors stated "We appreciate the extra effort put forth by the Forest to designate additional miles for mixed use. We recognize there was significant pressure to do otherwise. The vehicle usage on the vast majority of the Forest roads is minimal and allowing passenger vehicles and ATVs to share the roads is appropriate. Additionally there is no history of accidents or injuries to warrant restricting use.

The County supports all efforts to prohibit mixed use where there are valid safety concerns."

Description of road management objectives, existing use, and proposed use: The goal for recreation (including motorized mixed use of vehicles) in the Forest Plan is that the over all management of the Forest results in a full range of recreation opportunities, ranging from primitive to modern recreation settings. Provide and manage a Forest Transportation System (roads and trails) to accomplish resource management objectives (including opportunities) while protecting resource values. This road is currently open to all motor vehicles. The primary use is recreation. Other uses include logging, fuelwood cutting, grazing, hunting and fishing. It is not feasible to reduce the maintenance level of this road, due to the terrain, the existing horizontal and vertical alignments, and the road width and surfacing type. No changes are proposed for the use of this road.

### Summary of Findings:

Motorized mixed use currently occurs on all of this road. There is no accident history. Traffic volumes are low. Sight distances are generally long. This road is wide with adequate runout space in the ditches or shoulders. Anticipated average speeds are 35 mph or less. These factors lead to the conclusion that the probability of a crash is low, and the severity of a crash is likely to be moderate

### Factors Considered:

#### 1. Operator considerations:

Prudent operators in compliance with the California Vehicle Code and other applicable laws and regulations is assumed.

#### 2. Crash history:

There is no crash history available for this road.

#### 3. Traffic volume and type:

##### Non-highway-legal vehicles:

< 12 inch tread width    < 50 inch tread width    >50 inch tread width

##### Highway-legal vehicles:

Passenger cars    Commercial vehicles    Recreation vehicles (RV's)

Traffic counts were done at the 5 different locations at the main entry points to the analysis area that includes this road. The time periods counted included mornings and evenings, and weekdays and weekends. Traffic was counted for a total of 85 hours, in 27 different counting periods. 259 vehicles were counted, for an average of less than 3.5 vehicles per hour. Of the 259 vehicles counted there was 7 motorcycles, 6 Truck/Tractors, the remainder were cars, pickups, or SUV's. See traffic count summary in Appendix B & details in Appendix C traffic count log. If traffic on the Medicine Lake road is excluded (it is a paved road not proposed for mixed use) then there were 120 vehicles in 62 hours of counting for average of less than 2 vehicles per hour.

#### 4. Speed - Anticipated average speed (85<sup>th</sup> percentile):

Anticipated average speeds on this road is 35 mph or less.

5. Road surface type:

This road is surfaced with crushed aggregate.

6. Intersections with other roads and trails:

Numerous intersections along the route. See attached map.

7. Other roadway factors:

This road is relatively wide. It was constructed as single lane roads, and is shown on our inventory as a single lane road. However past maintenance practices have widened this road to approximately 18 to 20 feet. Sight distance is adequate for the anticipated average speed on this road. See attached Photo.

8. Roadside conditions:

This road has an inside ditch that can be driven into with most vehicles in an emergency.

9. Risk without mitigation:

Crash probability:  High  Med  Low

Crash severity:  High  Med  Low

**Mitigation Measures:**

A sign plan will be developed after the travel management decision is made on the Forest. Share the Road signs may be appropriate at entry points to the Forest.

**Conclusion:**

The Modoc National Forest has the lowest recreation use of any National Forest in the National Forest System. We receive much lower motor vehicle use on our Maintenance Level 3 (ML3) and 2 (ML2) roads than any other Forest in Region 5. This is due primarily to our sparse population (Modoc County has 9000 people in the entire county), long distance to population centers and a long distance to popular interstate road systems.

Both the Modoc County Sheriff and the local California Highway Patrol (CHP) are not aware of any OHV accidents that have occurred on the Forest. The CHP does not patrol on our ML3 roads and only responds if there has been an accident.

OHV use on this Forest has not grown nearly as fast as other locations in California as demonstrated by our survey. Therefore it is reasonable to continue to provide this opportunity.

Currently mixed use is allowed on this road. Nothing found during this analysis indicates that a change to the current use is needed.



# Engineering Report

## Modoc National Forest

### Warner Mountain Ranger District

#### Analysis of Road # 46N06

#### for Motorized Mixed Use Designation

Prepared by:

\_\_\_\_\_  
Forest Engineer

Date: \_\_\_\_\_

Concurred by:

\_\_\_\_\_  
Forest Supervisor

Date: \_\_\_\_\_

Forest: **Modoc** District: **Warner Mountains**

Road Number: **46N06** Name: **Cold Creek**

Beginning Mile Post: 0.0 Ending Mile Post: 12.2

Traffic Service Level:  A  B  C  D

Objective Maintenance Level:  1  2  3  4  5

Operational Maintenance Level:  1  2  3  4  5

Maintenance by: FS Non-Forest Service ROW or jurisdiction?  Yes  No

Any road use agreements, maintenance agreements, or other encumbrances?  
 Yes  No

Description of agreements or encumbrances: Unrestricted Government Use ROW's over private lands that the road crosses.

Subject to Highway Safety Act?  Yes  No

Non-highway-legal vehicles currently permitted?  Yes  No

Is motorized mixed use consistent with State and local laws?  Yes  No

The California Vehicle Code OHV Provisions [38001(a)] includes a statement that 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".

Local Officials including the Modoc County Sheriff and others do not consider these roads to be highways for this purpose.

In a letter dated February 10, 2009, the Modoc County Board of Supervisors stated "We appreciate the extra effort put forth by the Forest to designate additional miles for mixed use. We recognize there was significant pressure to do otherwise. The vehicle usage on the vast majority of the Forest roads is minimal and allowing passenger vehicles and ATVs to share the roads is appropriate. Additionally there is no history of accidents or injuries to warrant restricting use.

The County supports all efforts to prohibit mixed use where there are valid safety concerns."

Description of road management objectives, existing use, and proposed use: The goal for recreation (including motorized mixed use of vehicles) in the Forest Plan is that the over all management of the Forest results in a full range of recreation opportunities, ranging from primitive to modern recreation settings. Provide and manage a Forest Transportation System (roads and trails) to accomplish resource management objectives (including opportunities) while protecting resource values. This road is currently open to all motor vehicles. The primary use is recreation. Other uses include logging, fuelwood cutting, grazing, hunting and fishing. It is not feasible to reduce the maintenance level of this road, due to the terrain, the existing horizontal and vertical alignments, and the road width and surfacing type. No changes are proposed for the use of this road.

### Summary of Findings:

Motorized mixed use currently occurs on all of this road. There is no accident history. Traffic volumes are low. Sight distances are generally long. This road is wide with adequate runout space in the ditches or shoulders. Anticipated average speeds are 35 mph or less. These factors lead to the conclusion that the probability of a crash is low, and the severity of a crash is likely to be moderate

### Factors Considered:

#### 1. Operator considerations:

Prudent operators in compliance with the California Vehicle Code and other applicable laws and regulations is assumed.

#### 2. Crash history:

There is no crash history available for this road.

#### 3. Traffic volume and type:

Non-highway-legal vehicles:

< 12 inch tread width  < 50 inch tread width  >50 inch tread width

Highway-legal vehicles:

Passenger cars  Commercial vehicles  Recreation vehicles (RV's)

Most of the traffic on the Cold Creek Road enters off from the PlumbValley Road 45N35. Traffic counts were done on the Plumb Valley Road 45N35 and the Dismal Swamp Road 48N21. These are two of the highest use roads within the analysis area. Traffic was counted during eight separate periods of 1 to 4 hours. The time periods counted included mornings and evenings, and weekdays and weekends. Traffic was counted for a total of 27 hours. 43 vehicles were counted, for an average of less than 2 vehicles per hour on the Plumb Valley Road and less than one vehicle per hour at Dismal Swamp. Of the 43 vehicles counted there was one Recreational Vehicle, the remainder were cars, pickups, or SUV's. See traffic count summary in Appendix B & details in Appendix C traffic count log.

#### 4. Speed - Anticipated average speed (85<sup>th</sup> percentile):

Anticipated average speeds on this road is 35 mph or less.

5. Road surface type:

This road is surfaced with crushed aggregate.

6. Intersections with other roads and trails:

Numerous intersections along the route. See attached map.

7. Other roadway factors:

This road is relatively wide. It was constructed as single lane roads, and is shown on our inventory as a single lane road. However past maintenance practices have widened this road to approximately 18 to 20 feet. Sight distance is adequate for the anticipated average speed on this road. See attached Photo.

8. Roadside conditions:

This road has an inside ditch that can be driven into with most vehicles in an emergency.

9. Risk without mitigation:

Crash probability:  High  Med  Low

Crash severity:  High  Med  Low

**Mitigation Measures:**

A sign plan will be developed after the travel management decision is made on the Forest. Share the Road signs may be appropriate at entry points to the Forest.

**Conclusion:**

The Modoc National Forest has the lowest recreation use of any National Forest in the National Forest System. We receive much lower motor vehicle use on our Maintenance Level 3 (ML3) and 2 (ML2) roads than any other Forest in Region 5. This is due primarily to our sparse population (Modoc County has 9000 people in the entire county), long distance to population centers and a long distance to popular interstate road systems.

Both the Modoc County Sheriff and the local California Highway Patrol (CHP) are not aware of any OHV accidents that have occurred on the Forest. The CHP does not patrol on our ML3 roads and only responds if there has been an accident.

OHV use on this Forest has not grown nearly as fast as other locations in California as demonstrated by our survey. Therefore it is reasonable to continue to provide this opportunity.

Currently mixed use is allowed on this road. Nothing found during this analysis indicates that a change to the current use is needed.



# Engineering Report

## Modoc National Forest

### Devils Garden & Doublehead Ranger

#### Districts

### Analysis of Road # 46N10

### for Motorized Mixed Use Designation

Prepared by:

\_\_\_\_\_  
Forest Engineer

Date: \_\_\_\_\_

Concurred by:

\_\_\_\_\_  
Forest Supervisor

Date: \_\_\_\_\_

Forest: **Modoc** District: **Doublehead**

Road Number: **46N10** Name: **Mowitz**

Beginning Mile Post: 0.0 Ending Mile Post: 30.7

Traffic Service Level:  A  B  C  D

Objective Maintenance Level:  1  2  3  4  5

Operational Maintenance Level:  1  2  3  4  5

Maintenance by: FS Non-Forest Service ROW or jurisdiction?  Yes  No

Any road use agreements, maintenance agreements, or other encumbrances?  
 Yes  No

Description of agreements or encumbrances: None (does not cross private property)

Subject to Highway Safety Act?  Yes  No

Non-highway-legal vehicles currently permitted?  Yes  No

Is motorized mixed use consistent with State and local laws?  Yes  No

The California Vehicle Code OHV Provisions [38001(a)] includes a statement that 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".

Local Officials including the Modoc County Sheriff and others do not consider these roads to be highways for this purpose.

In a letter dated February 10, 2009, the Modoc County Board of Supervisors stated "We appreciate the extra effort put forth by the Forest to designate additional miles for mixed use. We recognize there was significant pressure to do otherwise. The vehicle usage on the vast majority of the Forest roads is minimal and allowing passenger vehicles and ATVs to share the roads is appropriate. Additionally there is no history of accidents or injuries to warrant restricting use.

The County supports all efforts to prohibit mixed use where there are valid safety concerns."

Description of road management objectives, existing use, and proposed use: The goal for recreation (including motorized mixed use of vehicles) in the Forest Plan is that the over all management of the Forest results in a full range of recreation opportunities, ranging from primitive to modern recreation settings. Provide and manage a Forest Transportation System (roads and trails) to accomplish resource management objectives (including opportunities) while protecting resource values. This road is currently open to all motor vehicles. The primary use is recreation. Other uses include logging, fuelwood cutting, grazing, hunting and fishing. It is not feasible to reduce the maintenance level of this road, due to the terrain, the existing horizontal and vertical alignments, and the road width and surfacing type. No changes are proposed for the use of this road.

## Summary of Findings:

Motorized mixed use currently occurs on all of this road. There is no accident history. Traffic volumes are low. Sight distances are generally long. This road is wide with adequate runout space in the ditches or shoulders. Anticipated average speeds are 35 mph or less. These factors lead to the conclusion that the probability of a crash is low, and the severity of a crash is likely to be moderate

## Factors Considered:

### 1. Operator considerations:

Prudent operators in compliance with the California Vehicle Code and other applicable laws and regulations is assumed.

### 2. Crash history:

There is no crash history available for this road.

### 3. Traffic volume and type:

Non-highway-legal vehicles:

< 12 inch tread width  < 50 inch tread width  >50 inch tread width

Highway-legal vehicles:

Passenger cars  Commercial vehicles  Recreation vehicles (RV's)

Traffic counts were done at the 7 different locations at the main entry points to the analysis area, that includes this road. The time periods counted included mornings and evenings, and weekdays and weekends. Traffic was counted for a total of 175 hours, in 53 different counting periods. 223 vehicles were counted, for an average of less than 1.5 vehicles per hour. Of the 213 vehicles counted there were four OHV's, the remainder were cars, pickups, or SUV's. See traffic count summary in Appendix B & details in Appendix C traffic count log.

### 4. Speed - Anticipated average speed (85<sup>th</sup> percentile):

Anticipated average speeds on this road is 35 mph or less.

### 5. Road surface type:

This road is surfaced with cinders.

6. Intersections with other roads and trails:

Numerous intersections along the route. See attached map.

7. Other roadway factors:

This road is relatively wide. It was constructed as single lane roads, and is shown on our inventory as a single lane road. However past maintenance practices have widened this road to approximately 18 to 20 feet. Sight distance is adequate for the anticipated average speed on this road. See attached Photo.

8. Roadside conditions:

This road has an inside ditch that can be driven into with most vehicles in an emergency.

9. Risk without mitigation:

Crash probability:  High  Med  Low

Crash severity:  High  Med  Low

**Mitigation Measures:**

A sign plan will be developed after the travel management decision is made on the Forest. Share the Road signs may be appropriate at entry points to the Forest.

**Conclusion:**

The Modoc National Forest has the lowest recreation use of any National Forest in the National Forest System. We receive much lower motor vehicle use on our Maintenance Level 3 (ML3) and 2 (ML2) roads than any other Forest in Region 5. This is due primarily to our sparse population (Modoc County has 9000 people in the entire county), long distance to population centers and a long distance to popular interstate road systems.

Both the Modoc County Sheriff and the local California Highway Patrol (CHP) are not aware of any OHV accidents that have occurred on the Forest. The CHP does not patrol on our ML3 roads and only responds if there has been an accident.

OHV use on this Forest has not grown nearly as fast as other locations in California as demonstrated by our survey. Therefore it is reasonable to continue to provide this opportunity.

Currently mixed use is allowed on this road. Nothing found during this analysis indicates that a change to the current use is needed.

