

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT – Ukiah Field Office

BLM Clear Lake Nutrient TMDL Update

This document is in response to an order from the Central Valley Regional Water Quality Control Board in regards to information on all management measures implemented to reduce phosphorous loads to Clear Lake. This is issued under Order for Technical Information on all Management Measures Implemented to reduce Phosphorus Loads to Clear Lake Issue Pursuant to Water Code Section 13267.

The majority of Bureau of Land Management (BLM) managed lands within the Clear Lake watershed are located within the South Cow Mountain Off-Highway Vehicle Recreation Area (South Cow) but does also include portions of the North Cow Mountain Recreation Area (North Cow). A majority of management actions to reduce sedimentation occur within the South Cow area. This document will talk about actions that are currently being taken to minimize sediment loss and planning processes that have recently occurred to improve monitoring and implementation of activities within these recreation areas.

Management Measures

Cow Mountain Recreation Area Implementation Plan

<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=75553>

The final draft of the Cow Mountain Recreation Area Implementation Plan (IP) was completed in 2016, though it still needs to be finalized. The IP describes current resource management conditions, outlines management constraints, and proposes actions based on best management practices for approximately 55,000 acres of Bureau of Land Management-administered lands within the Cow Mountain Recreation Area in Mendocino and Lake Counties, California. The IP focuses on a multitude of issues and addresses soil and water resources through the improvement, management, and maintenance of recreational trails. These efforts will not only minimize the amount of soil loss but also help to sustain a high quality of recreational opportunities provided to the public. In addition, the IP discusses additional management actions for the South Cow Mountain Recreation Area, which includes the wet weather closure policy (see below for more detail), eight trails (3.62 miles) designated for re-routing, and 9 trails (15.08 miles) identified for closure.

Soil Conservation Plan

Appendix A

A Soil Conservation Plan was completed in 2016 to meet California State Parks - Off-Highway Motor Vehicle Recreation Division, Grant and Cooperative Agreement requirements for Soil Conservation for specific projects where ground disturbing activities are proposed and for which funding is requested and received. The goal of the BLM, Ukiah Field Office Soil Conservation Plan is to set forth guidance for assessing, monitoring, and maintaining the OHV trail system within the Cow Mountain OHV Recreation Area, Knoxville Recreation Area, and Indian Valley Recreation Area.

Eight Mile Valley Watershed Restoration Project

Appendix B

A project is currently being developed to rehabilitate a wetland and improve water quality within Eightmile Valley in the South Cow Mountain OHV Recreation Area. In 2006, a “pond and plug” restoration project occurred with the hopes of raising the water table, slowing water velocity, and improving wetland habitat. However, a large storm occurred the winter immediately after construction was completed, destroying the work that was put in place. Many of the ponds failed and large gullies were created in the valley.

A 319(h) grant was awarded to the BLM Ukiah Field Office in the amount of \$750,000 to perform sediment reduction and habitat enhancement in the same project area. Once completed, water velocity will be slowed, allowing sediment to settle and stay within the valley. The gullies that are eroding up the watershed will be stopped and repaired, stopping active erosion from contributing to sediment loads in Clear Lake. The project is in the early phase, with contracting work occurring at the moment.

Currently, Eightmile Valley is off-limits to off-highway vehicles.

Annual Trail Maintenance

See the [Cow Mountain Recreation Area Implementation Plan link](#)

Routine trail maintenance occurs annually to lessen soil loss due to rills and gullies. In a typical year, 75 miles of trail are maintained. So far this year, approximately 10 miles have been completed. Typical erosion control techniques are used to minimize soil loss along the trails. These include the placement of waterbars and rolling dips, the cleaning of sediment basins, and ensuring culverts are properly functioning.

Mendo-Lake Road Improvement Project

Appendix C

In 2010, sections of the eastern portion of Mendo-Lake Road from the western edge of the North Fork of Scott's Creek west 2.2 miles beyond that point was paved. The purpose was to reduce soil loss during storm events, to reduce sediment being carried downstream from storm events, to increase traction on Mendo-Lake Road when wet, improve air quality during dry season (dust abatement), and to increase Public safety when traveling on the road during wet weather. South Cow Mountain is generally open year round with temporary seasonal closures due to rainfall. The eastern two miles of the Mendo-Lake Road consists of heavy clay soils which are very slippery when wet and erode quite easily during storm events, resulting in sediment being carried downstream and eventually ending up in Clear Lake. During the dry seasons, heavy dust was created from vehicle traffic which becomes air born with vehicle movement. The area paved is 2.2 miles long by 16 feet wide for a total of 4.27 acres. Grading of the dirt sections in between the paved sections occurs annually to correct any erosion issues that may have occurred. NEPA requirements were completed in FY 2009.

Wet-weather Closure Policy for South Cow Mountain

See the Cow Mountain Recreation Area Implementation Plan link

The BLM has a wet-weather closure policy for the South Cow Mountain OHV Recreation Area that has been in effect for more than two decades. During periods of seasonal and severe storms (beginning October 1st until the end of seasonal precipitation) the Cow Mountain Recreation Area's roads and trail become unsafe and extremely sensitive to trail use impacts. During the wet season, the Ukiah Field Office implements a temporary closure on South Cow Mountain to all motorized vehicles. Exceptions to this policy are granted to private land owners who need to access their property. However, these private land owners are only allowed to access their property via the most direct route possible, and are not allowed to use a motorized vehicle on any other part of the South Cow Mountain OHV Area during closures. Initially, no closures occur until the total rainfall for the season reaches 4 inches. Once 4 inches of precipitation is exceeded, the following criteria apply:

1/2" in 24 hours = 3-day closure

1" in 72 hours = 3-day closure

Reopening of the area to motorized vehicles occurs 3 days (72 hours) after no measurable precipitation is recorded, not after the initial closure of the area. It is possible that the area could be opened prior to the full 3-day (72 hours) drying period has elapsed. Either possibility can only occur, however, after a thorough inspection of the mountain has been completed by qualified personnel. This policy is subject to modification by BLM due to changing resource conditions. Currently, there is no wet weather closure policy for the North Cow Mountain Management Area; however, it is under consideration.

Completion of the Ukiah FO RMP

<http://www.blm.gov/ca/st/en/fo/ukiah/rmpmove.html>

In 2006, BLM issued the Ukiah Resource Management Plan (RMP), which presents the decisions and visions for management areas in the Ukiah Field Office, including Cow Mountain. For water resources, BLM has listed several objectives, including “achieving and maintaining the beneficial uses of water bodies as outlined by the Regional Water Quality Control Board Basin Plans.” This document also notes mitigation measures for sediment erosion control under soil resources (BLM Ukiah RMP, see link above for document).

Estimated Load Reduction

Eight Mile Valley Watershed Restoration Project

Since this project has yet to occur and design plans have not yet been created, estimated phosphorous/sediment reduction rates cannot be deduced at this time.

Annual Trail Maintenance

Within the Clear Lake watershed portion of South Cow, 700 waterbars are monitored and maintained every year on a total of 18 trails. Waterbars are addressed as needed while the trails are being maintained, so the number of waterbars improved fluctuates each year. There are approximately 89 culverts that are monitored for blockages and failure and are fixed as needed. There is no specific data on how many culverts, waterbars, and rolling dips are maintained each year; however, monitoring schedules and recording methods have been identified in the Soil Conservation Plan, with these methods being implemented in the near future. Sediment basins were designed to hold one storm’s worth of sediment. It is currently not known how many sediment basins are located within South Cow. It is written in our plans that they should be cleaned out during trail maintenance; however, due to budgets and limited staff time, they have not been cleaned out within the last few years.

Mendo-Lake Road Improvement Project

The paving of the eastern portion of Mendo-Lake Road has reduced sediment loss greatly since it was put in place in 2010. The area paved is 2.2 miles long by 16 feet wide for a total of 4.27 acres. Gravel has been placed in the sections of road that were not paved to help minimize soil loss.

Wet-weather Closure Policy for South Cow Mountain

During the closure, access to South Cow is limited to private land owners who live within the area. Without vehicle disturbance in this area, sediment loss is limited to natural sedimentation off of all of the roads and trails. Impacts can vary based on the amount of maintenance that was completed prior to the rainy season.

Additional Measures

At this time and without having the specific information needed to calculate the phosphorous/sediment reduction rate for any of the management measures, it is not possible to say whether or not a 40% reduction was made. It is hoped that the information provided will, however, give enough insight into the processes that the BLM is taking in order to reduce any loading coming off of BLM managed lands. With the addition of the Cow Mountain Recreation Area Implementation Plan and the Soil Conservation Plan, new techniques and monitoring procedures have been introduced that will help the office identify key areas that are in need of erosion control to minimize soil loss. The process of responding to the RWQCB's request for update has also brought some attention to management processes and maintenance that may have been overlooked. Below are some additional measures that the BLM Ukiah Field Office is taking in the future to further lower phosphorous and sediment loads coming off of BLM lands.

Regular cleaning of the trail sediment basins – This would have an immediate beneficial effect on water quality if done before each rainy season. Cleaning the sediment basins will allow for any new sediment coming off roads to settle out of the water system and prevent the materials from making their way to Clear Lake.

Eightmile Valley project – This project will improve water quality within the watershed. Once completed, water velocity will be slowed, allowing sediments to settle and stay within the valley. The gullies that are eroding up the watershed will be stopped and repaired, stopping active erosion from contributing to sediment loads in Clear Lake.

Completion of the Mendo-Lake Road paving project – With additional future funding, parts of the road that were not paved, will be to complete one continuous paved section of roadway on the most erosive section of road. This will prevent further soil loss on this steep section of roadway.

Appendices

A - Soil Conservation Plan

B - Eight Mile Valley Watershed Restoration Project

C - Mendo-Lake Road Improvement Project (EA, FONSI, and Decision Record)

APPENDIX A

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT – Ukiah Field Office
SOIL CONSERVATION PLAN

Introduction

This Soil Conservation Plan has been prepared to meet California State Parks - Off-Highway Motor Vehicle Recreation Division, Grant and Cooperative Agreement requirements for Soil Conservation for specific projects where ground disturbing activities are proposed and for which funding is requested and received. The goal of the Bureau of Land Management (BLM), Ukiah Field Office Soil Conservation Plan is to set forth guidance for assessing, monitoring and maintaining the OHV trail system within the Cow Mountain OHV Recreation Area, Knoxville Recreation Area and Indian Valley Recreation Area.

Project objectives used previous soil survey conducted by AECOM in 2012 to reveal soil impacts from use within South Cow Mountain. Reporting and maintenance will help explain where and why problems on trails may be occurring and how to fix said problems. Protocol for assessment, maintenance and monitoring are identified below. In addition, the plan will provide for long-term prescribed use without generating soil loss that exceeds restorability, and without causing erosion or sedimentation which significantly affects resource values beyond the facilities.

Implementation of projects will include guidance from the 2008 Soil Conservation Guidelines, the Ukiah Field Office Recreation Management Plan (RMP) and 2012 Trails Condition Survey for South Cow Mountain OHV Recreation Area conducted by AECOM. This Soil Conservation Plan reflects some protocol and formatting styles used by the Bureau of Land Management (BLM) Eagle Lake Field Office, to help with BLM consistency and soil evaluation accuracy.

(1) Assessment Protocol

To determine the current condition of OHV trails, all trails require a consistent base-line and trail inventory that will outline the following trail condition factors: GPS data, trail segment erodibility, trail segment slope, water control, off trail erosion, tread wear, sediment trap conditions, water crossing conditions, and user created trails. Using the California State Parks OHV Trail Condition Evaluation Form, each trail segment shall be assigned a Red, Yellow or Green condition. Data shall be compiled in a Trail Reference Catalog, ArcGIS, and on Google Earth. Once initial assessment is conducted, future assessment will be performed during soil monitoring process.

- A. Water, Wind & Mechanical Erosion protocols will be followed as outlined in the 2008 Soil Conservation Guidelines. While OHVs contribute to the breakdown of water control structures, most water control problems stem from poorly designed trails (too steep) that require each water bar to function properly or there is a domino effect of one after another water bar failing downhill.
- B. Water and Sediment Control measures will be assessed as outlined in the 2008 Soil Conservation Guidelines. There is one detention basin located downhill from Oakwood Springs Staging Area.

- C. Tread Condition will be assessed as outlined in the 2008 Soil Conservation Guidelines. Tread wear is mostly caused by a lack of water control, but is also caused by mechanical maintenance with SWECOs and erosion caused by OHVs.
- D. Off-Site impacts due to water carried sediments will be assessed by visual inspections of boundaries; estimates of quantities will be performed if any are observed to determine if significant impacts are occurring. There is little off-trail travel in the study area, largely due to the dense scrub vegetation found throughout the area.
- E. Where watercourse crossings do exist, they will be assessed as outlined in the 2008 Soil Conservation Guidelines.

(2) Maintenance Protocol

- A. In consideration of the potential of items A through E above, work will be completed on trails larger than single track by mechanized methods where needed, as outlined in the 2008 Soil Conservation Guidelines. Work will be completed on trails larger than single track by mechanized methods where needed. Hand crews will be used for signing, brushing, and tree removal on all trails. Maintenance work will be done in accordance with best management practices. Maintenance schedules will be established as a result of informal quarterly monitoring reports, the annual monitoring report and the compliance action plan. Maintenance work will be done as described in the NEPA Documentation, Categorical Exclusion and Decision Records. All trails will undergo annual brushing and surface maintenance. All trail segments assessed as Yellow Condition must be repaired before the next annual trail condition monitoring cycle. All trail segments assessed as Red Condition must undergo immediate repair, or within six months be closed and rerouted. A Final monitoring report and compliance action plan will be completed and submitted annually at the end of the project performance report.

(3) Protocol for Monitoring

- A. The objectives for monitoring are:
 - 1. To determine the extent of erosion occurring.
 - 2. What conditions or combination of conditions is causing accelerated erosion?
 - 3. Where is it occurring?
 - 4. What is the extent?
- B. Monitoring parameters include:
 - 1. Informal monitoring of conditions by volunteers, visitors, and staff.
 - 2. Formal monitoring by trained staff during annual trail condition evaluations.
 - 3. Formal monitoring of open water crossings after significant weather events and after any permitted events.
 - 4. Informal monitoring after significant weather events and after any permitted events.
- C. Monitoring site selection will be determined by:
 - 1. Past monitoring results.
 - 2. Erosion hazard assessment using past maintenance records and institutional knowledge of past practices and occurrences.
 - 3. Erosion hazard assessment using evaluations for terrain, soil type, weather patterns, and use patterns.

4. Annual maintenance plan per area (e.g. North, South) and availability of maintenance equipment (SWECO).
- D. Monitoring schedules will be determined by:
1. Known historic weather patterns.
 2. Visitor use patterns and maintenance schedule
 3. Accessibility to trails by trained staff (e.g. weather, maintenance resources).
- E. Data collection will be performed by staff that has been trained by the BLM, UKIAH Field Office OHV Park Ranger to ensure quality assurance/quality control.
- F. Data management will be performed by the BLM, Ukiah Field Office OHV Park Ranger, Seasonal Park Rangers, or other qualified staff or volunteers.
- G. The monitoring methods will consist of:
1. Establishing and documenting photo points.
 2. Completing OHV Trail Condition Evaluation Forms for all BLM managed trails within the South Cow Mountain and Knoxville OHV Area.

Data collected will be used to determine facility needs, prioritize maintenance, and facilitate management. All trails will be annually monitored either on foot or by OHV. Any changes in trail condition will be noted, photographed, and immediately assessed via UTAP with industry standard trail assessment tools. Data collected shall be cataloged and then utilized in creating a maintenance action. All trail segments assigned a Yellow Condition must be repaired before the next annual trail condition monitoring cycle. All trail segments assigned a Red Condition must undergo immediate repair, or within six months be closed and rerouted

(4) Monitoring and Soil Conservation Standard Compliance Report

The final monitoring report will be submitted at the end of the Project Performance Period. The following information will be used as baseline data in the future compliance reports.

1. Historical Conditions:

Historical Conditions will be addressed in the Monitoring Plan. These Historical Conditions will be addressed using the present and past Soil Surveys, Photo Point Monitoring, Visual Monitoring, historical knowledge of trails from staff and volunteers, and other documentation. In addition, past maintenance activity records, and past experiences will be used to determine the Historical Conditions. The Historical Conditions will ultimately be used to detect Change Analysis. In the future, the drawn Conclusion in the Monitoring Report will be a tool to compare and report actual Historical Findings.

1. Prior to 2012, the BLM Ukiah Field Office had not prepared reports for trail monitoring. We had also monitored areas before and after events such as a significant rainfall allowing for closures and OHV special events. Trail maintenance needs were completed annually or as funding and resources allowed. Maintenance scheduling has been determined by historic maintenance schedule (e.g. Northern trails year one and Southern trails year two), annual monitoring results, weather conditions, availability of maintenance resources, and from input from visitor use groups and the general public.

2. 2009-2014: Visual monitoring was conducted with subsequent trail maintenance as funding and resources were available on South Cow Mountain.
3. 2015: Visual monitoring through volunteers was completed for work done for active grant G12-01-17-R01 before and active implementation of barriers. Picture monitoring for trail maintenance and road grading was completed during project performance period for active grant G13-01-17-G01.
4. 2016: Monitoring is scheduled to take place throughout the year. There are no active grants through the Ukiah Field Office with ground disturbing qualities during this period. Trail maintenance will be conducted during the spring when resources are available. Monitoring for active grant G13-08-01-R01 through UC Davis will take place.
5. 2017: If awarded, monitoring is scheduled to take place throughout the project performance period for all active grants which includes the G15-01-08-G01, Ground Operations grant. Monitoring is scheduled to continue for active grant G13-08-01-R01 Restoration Grant through UC Davis. Restoration sites will be stabilized to ensure there is no additional erosion or soil loss. Before and after photos will be taken throughout the performance period by UC Davis and Ukiah Field Office. Trail maintenance is planned to be conducted again in spring of 2017 and before and after events.
6. Final compliance reports will be submitted at the end of the project period for each year grant agreement with the BLM and OHMVR.

2. Change Analysis

- A. Since the 1980's all trails have received mechanical maintenance using a 450 and a 480 Sutter Equipment SWECO type trail tractor, or grader, depending on individual trail width and maintenance needs. Tread surfaces have been repaired, increased the amount of water diversion features and recovered soil from drain outlets on trails where necessary.
- B. Trail maintenance needs have been completed on an annual basis. Maintenance scheduling has been driven by annual monitoring results, use patterns, availability of maintenance resources (SWECO) and weather conditions.
- C. In the future, detection, description and analysis of change will be based on changes in historical conditions identified during informal and formal annual monitoring using the protocol outlined in the Soil Conservation Plan.

3. Findings:

- A. Performing routine annual mechanized maintenance on trails has resulted in better tread conditions, less soil loss due to rills and gullies and more easily recoverable sediment.
- B. Performing routine annual mechanized maintenance on trails has also increased the overall quality of the trails and provided a more enjoyable riding experience to users. This has decreased the tendency of users to ride off-route and create their own trails.

- C. Future Annual Monitoring Reports will address changes and additional findings by identifying and documenting them during monitoring and determining appropriate measures to be taken to correct any deficiencies. These measures will be set forth in the Compliance Action Plan.

1. Conclusions:

- A. Annual mechanized and hand trail maintenance needs will continue to be implemented.
- B. It is more cost effective to perform routine maintenance and monitoring, to keep trails in good condition than to let trails deteriorate to the point of needing major reconstruction or closure and restoration.
- C. Conclusions based on detected changes and additional information will be addressed in future Annual Monitoring Reports and incorporated into the Compliance Action Plan.

1. Compliance Action Plan

The plan will report the specific recommendations and management decisions based on the Conclusions. The Compliance Action Plan will also set forth a specific timeline for the completion of these Conclusions.

1. The report will include documentation of the Change Analysis and the Findings and should include one or more of the following steps:
 - a. If necessary, describe the steps to **temporally close** that portion or area funded from OHV trust funds based on Conclusions.
 - b. If necessary, explain reasons why the OHV opportunity has **not** been repaired, include plan to **repair or close** that portion or area based on Conclusions.
 - c. Any other specific action planned (i.e. trail rerouting, culvert replacing, downed tree removal, installation of a drainage structure etc.)

Compliance:

- Current activities to be implemented will include ongoing mechanized and hand maintenance based on previous year's Trail Monitoring and informal monitoring performed by volunteers and staff. Approximately 76 miles of designated routes and trails within the South Cow Mountain OHV Recreation Area will receive mechanized and/or non-mechanized maintenance including, trail tread repair, tree removal, rut repair, hand maintenance including trail brushing, and sign replacement. The schedule of completion on the above activities will be dependent upon adequate soil moisture conditions for mechanized work and availability of resources. Most mechanized work will be scheduled to be completed in the spring and early summer. Hand work will be performed on a regular basis throughout the spring, summer and fall by the Outdoor Recreation Planner and OHV Park Ranger the extent of hand work will depend on crew availability, seasonal employee availability, volunteer availability and trail accessibility.

- Based on visual monitoring in 2015 after major rain events, 76 miles of trail maintained under the G13-01-17-G01 ground operations grant currently meet soil conservation standards.
- Maintenance is scheduled to be conducted in spring 2016 by the Ukiah Field Office Heavy Equipment Operator with a SWECO trailer tractor. Maintenance to be conducted in 2016 is not under an active grant. Monitoring of restoration grant G12-01-17-R01 will continue this year as closeout is completed.
- Post event monitoring for the 2016 Sawmill Endurance Race is in progress and has not posed any direct negative effects to trails thus far.
- 2016 photo points will be established on trails indicated in the 2012 AECOM report, as priority sites for restoration and monitoring without using grant funding.
- 2017 We will continue to record trail areas with erosion or other tread issues and use photo point monitoring.

Maps:

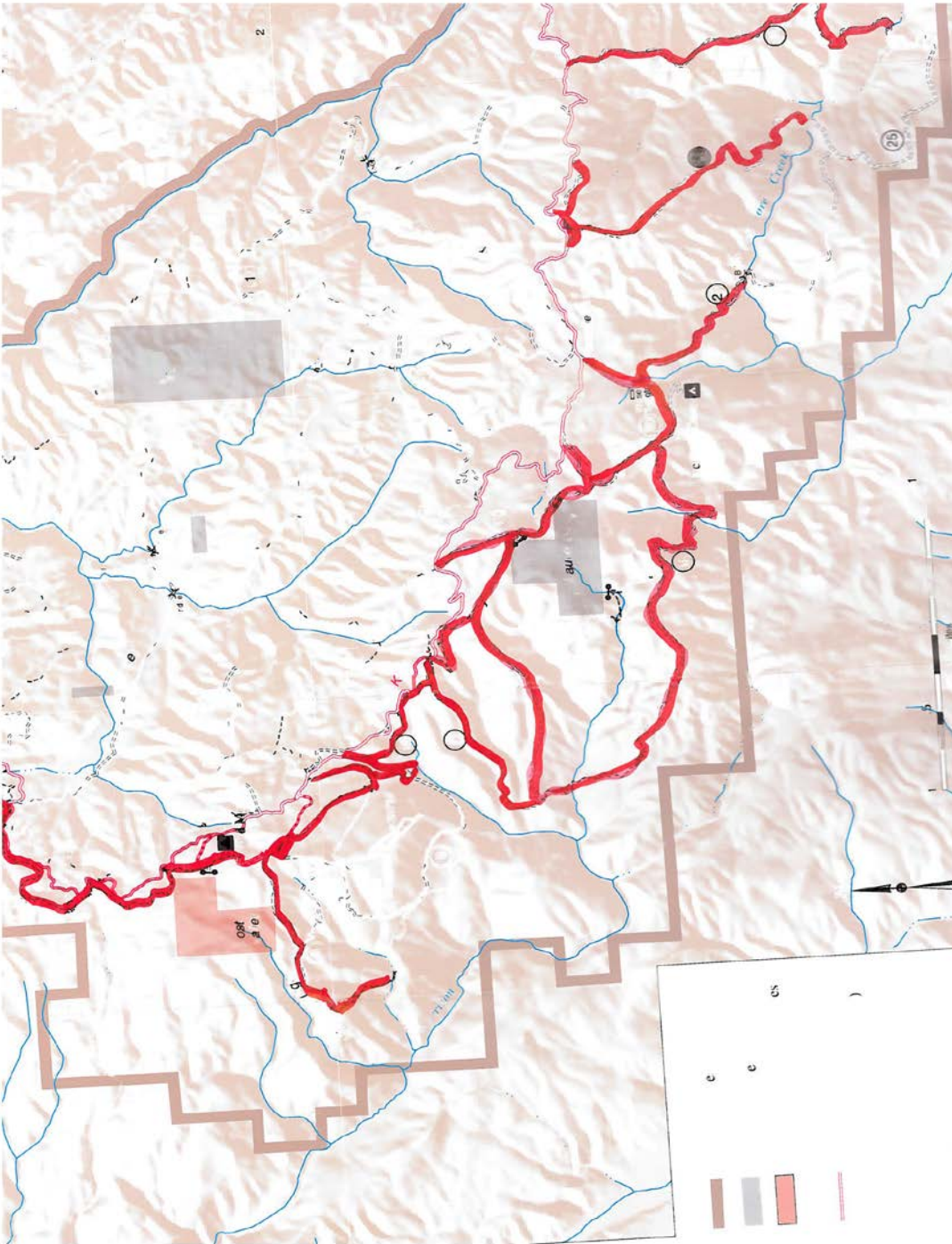


Image 1 Red Lines indicate trails maintained mechanically (SWECO) in 2015/2017

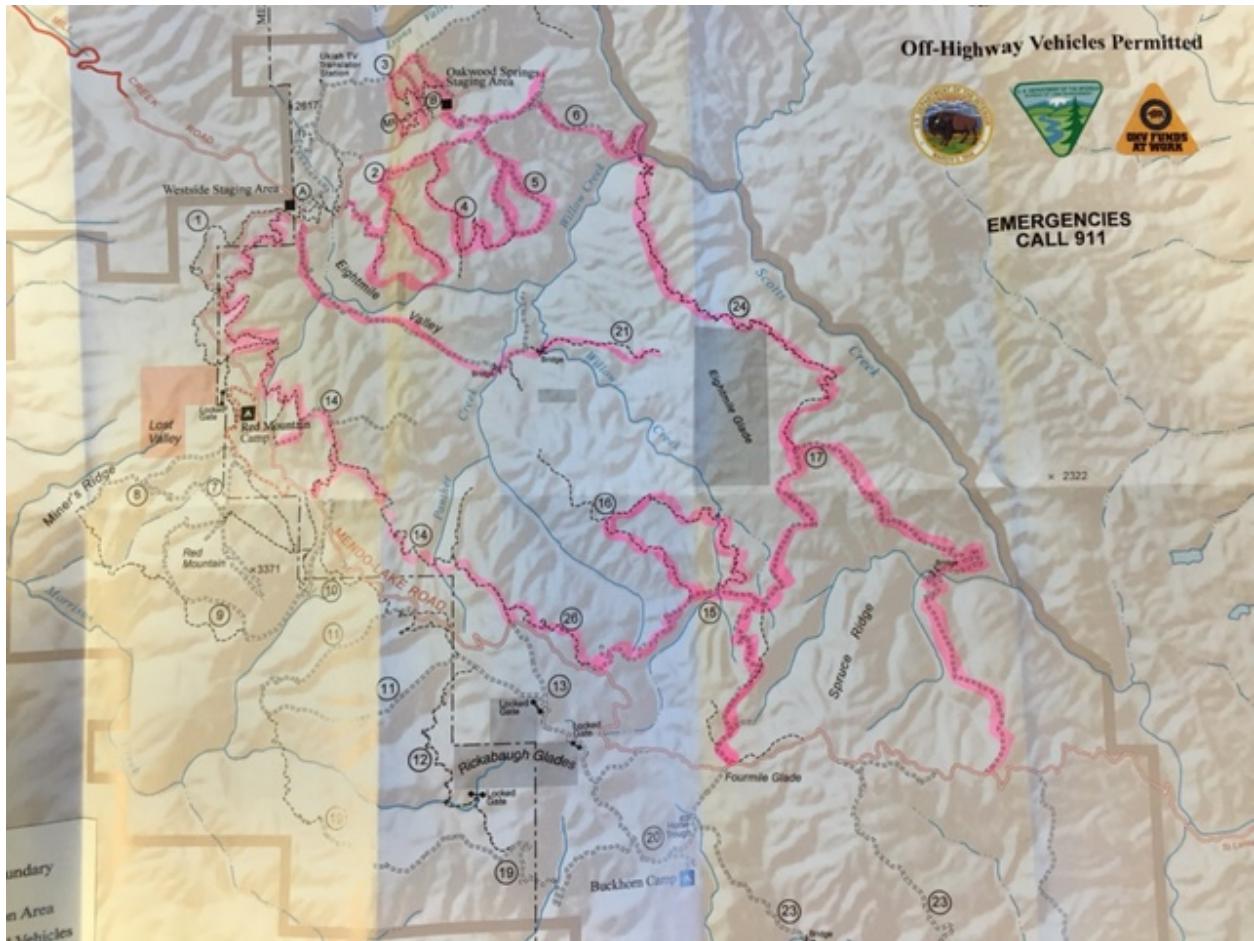


Image 2 Trails to be maintained in 2016/2018

APPENDIX B

California's Nonpoint Source Pollution Control Program
Federal Clean Water Act Section 319(h) Grant
Grant Agreement
Between the
State Water Resources Control Board
And
Bureau of Land Management

Eightmile Valley Sediment Reduction and Habitat Enhancement Project
Agreement No. 14-425-255

**Please see email for attachment or contact Molly Nilsson at
707-468-4098
mnilsson@blm.gov
for a copy of the 319(h) grant awarded to the BLM for the completion of the Eightmile
Valley Project in the South Cow Mountain OHV Recreation Area.**

APPENDIX C



**United States Department of the Interior
Bureau of Land Management**

Date: March 10, 2009

Environmental Assessment DOI-BLM-CA- C05000-2009-014

Title: MENDO-LAKE ROAD PROJECT
Location: Cow Mountain Management Area, Lake County, CA.

U.S. Department of the Interior
Bureau of Land Management
Ukiah Field Office
2550 North State Street
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Chapter 1 - Introduction

Project Title: Mendo-Lake Road Project

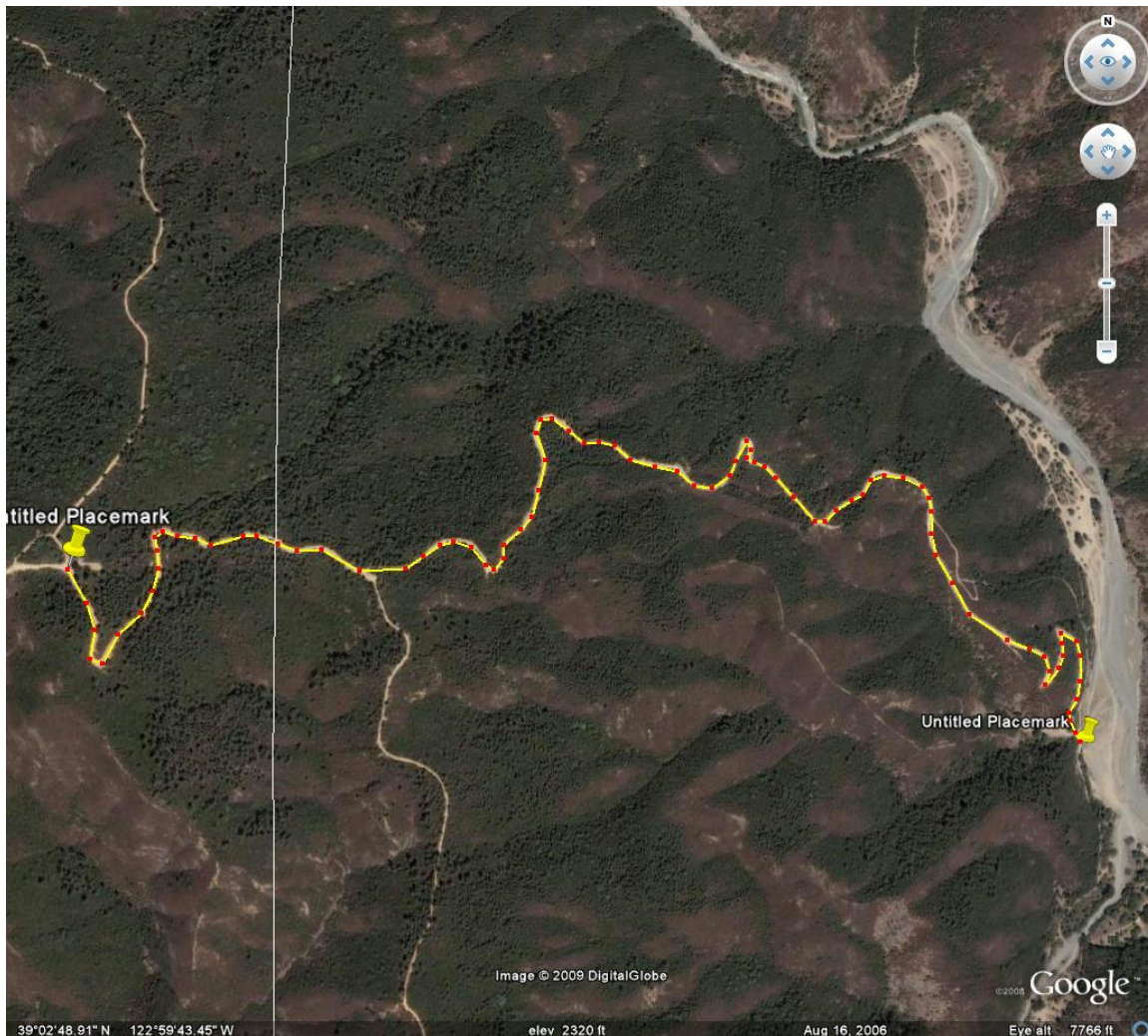
Name and Address of Proponent: Bureau of Land Management
2550 North State Street
Ukiah, CA 95482

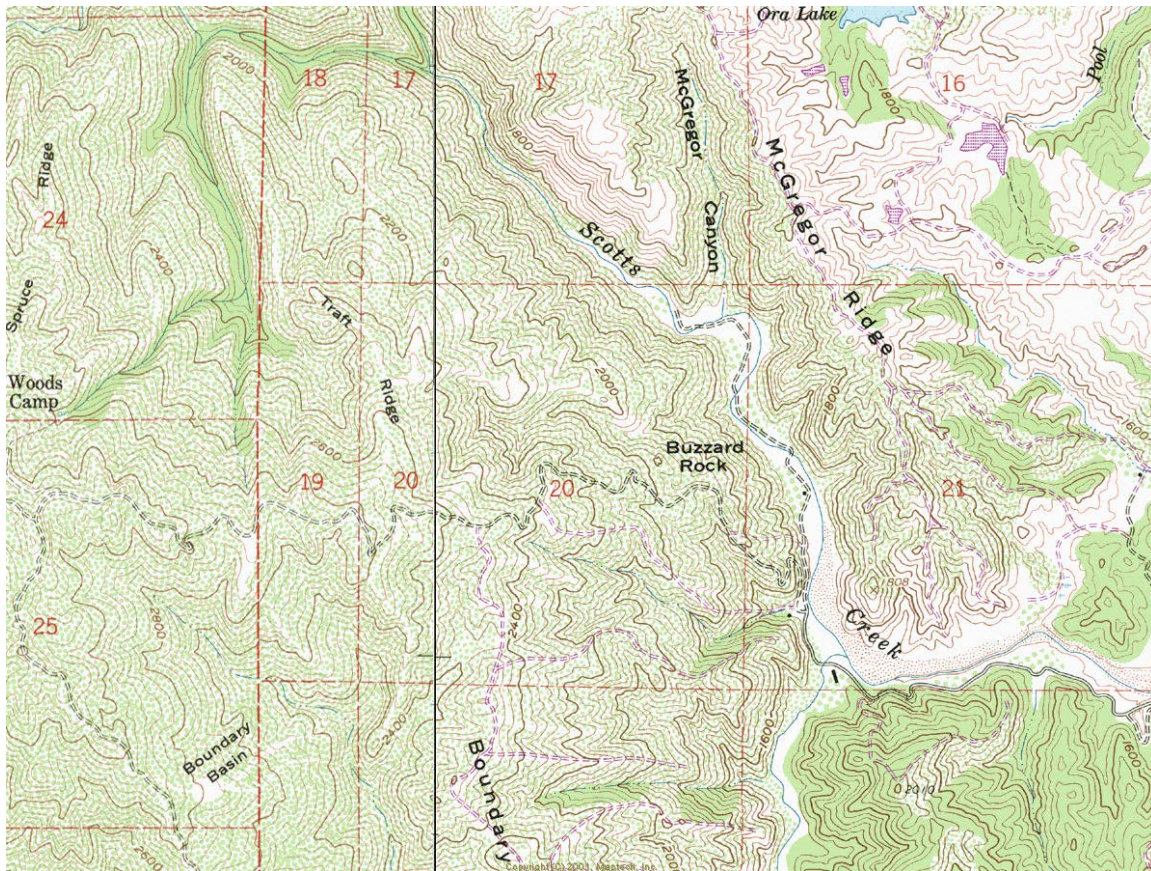
Case File: N/A

Project Location:

Project Site: T.14 N. R.10W., Section 20, S2S2NE, SESENW, N2SW, N2NWSE, NESE, Section 21, W2SW, MDM. Lake County, California (Lakeport 7.5' Quadrangle): approximately 3.7 miles West of Highway 29 at Lakeport California.

The project area begins at the western edge of the North Fork of Scotts Creek on the Mendo-Lake Road and extends west for about 2.2 miles beyond that point. It is all on BLM public land (see the map and photo below).





Land Status Verified: Public Lands

Affected Surface Area: Approximately 4.27 acres.

Relationships to Statutes and Regulations:

The proposed action is consistent with Code of Federal Regulations (CFR) and Federal natural resource related policies and laws including:

- The proposed action is consistent with Federal natural resource related policies and laws including: Archeological Resources Protection Act of 1979 (16 U.S.C. 470aa - 470mm)
- National Historic Preservation Act of 1966 and 1999 amendment (16 U.S.C. 470 et seq.)
- Native American Graves and Repatriation Act of 1990 (43 CFR 7)
- American Indian Religious Freedom Act of 1978
- Endangered Species Act of 1973 (16 U.S.C. 1531 et seq. as amended)
- National Environmental Policy Act of 1969 (42 U.S.C. 4321)
- Federal Land Policy and Management Act of 1976 (90 Stat. 2776 Section 302)
- Federal Water Pollution Control Act of 1977 (Clean Water Act) (33 U.S.C. 1251 et seq.)

- Clean Air Act of 1955
- Taylor Grazing Act, as amended, 1970
- Lacey Act (Federal Noxious Weed Act of 1974)
- Public Rangelands Improvement Act 1978
- Healthy Forest Restoration Act of 2003
- Federal Noxious Weed Act of 1974 (as amended by Sec. 15, Management of Undesirable Plants on Federal Lands, 1990)
- Wilderness Act of 1964
- Wild and Scenic Rivers Act of 1968
- Surface Mining and Reclamation Act of 1977
- BLM Manual Section 6840
- Executive Order 11987 Exotic Species
- Executive Order 13112 (1999) National Invasive Species Council
- Executive Order 12580 Clean Water
- Executive Order 13112 Invasive Species
- Executive Order 13186 Responsibilities of Federal Agencies to Protect Migratory Birds
- Executive Order 13084 Consultation and Coordination with Indian Tribal Government
- Executive Order 12989 Environmental Justice in Minority Populations and Low-Income Populations
- Executive Order 11990 Protection of Wetlands
- Executive Order 11988 Floodplain Management
- Northern California Coastal Wild Heritage Wilderness Act (Oct 2006)

Conformance with Applicable Land Use Plan or other Plans: The proposed action is in general conformance with the Ukiah Field Office Resource Management Plan (September, 2006):

- 2.14 Recreation, Goals, page 23: “Manage off-highway vehicle, non-motorized, and mechanized use on BLM-administered lands to protect natural resources, provide visitor safety, and minimize conflicts among various users.”
- 2.16 Soil Resources, Goals, page 38: “Prevent or minimize soil erosion, compaction.”
- 2.16 Soil Resources, Management Actions, page 38, “Design and construct roads to cause minimal disruption of natural drainage patterns. The following provisions for two components of road drainage must be included in every projects: 1)road surface drainage (including drainage which originates from the cutbank, road surface and fillslope), and 2) hillslope drainage (including drainage from large springs, gullies, and streams which cross the road alignment).”
- 2.17 Water Resources, Objectives, page 40: “Contribute to surface and groundwater compliance with objectives of the Clean Water Act...”

Purpose and Need for the Proposed Action:

Purpose: The purposes of the proposed action are:

1. To reduce soil loss from the erosion of Mendo-Lake Road during storm events.
2. To reduce sediment being carried downstream from storm events.
3. To increase traction on Mendo-Lake Road when wet.
4. Improve air quality during dry season (dust abatement).
5. Increase Public safety when traveling on the road during wet weather.

Need: The management area is generally open year round with temporary seasonal closures due to rainfall. The eastern two miles of the Mendo-Lake Road consists of heavy clay soils which are very slippery when wet and erode quite easily during storm events, which results in sediment being carried downstream and eventually ending up in Clear Lake.

During the dry seasons, heavy dust is created from vehicle traffic which becomes air born with vehicle movement.

Description of Alternatives, including Proposed Action

This Environmental Assessment (EA) has been prepared to analyze the re-surfacing of a segment of the Mendo-Lake Road that bisects the South Cow Mountain Recreation Area.

The road has annually been maintained for 30 plus years. The potential actions are general in nature and diverse. This is necessary at this point as the Federal Highway Administration Department of Transportation (DOT) engineers will be developing alternatives with more detailed specifications. An environmental assessment is required prior to the DOT engineer's evaluation and development of design specifics.

If approved, the work would be completed in Spring 2011.

Alternatives Considered, but Dismissed from Analysis:

An alternative to re-align the road was discussed. It was dismissed due to the steepness of the canyons, the soil type and budget limitations. Re-alignment with these conditions would result in the same factors as the current condition of this section of road.

Chapter 2 - Proposed Action and Alternatives

Alternative A – Proposed Action:

The project area is in the Cow Mountain Recreation Area which was congressionally designated in October 2006. The area is further divided into North and South sections. The road has annually been maintained for 30 plus years with heavy equipment (a grader, dump truck, and backhoe).

The management of the South Cow Mountain Off-Highway Vehicle (OHV) Area is of great concern to Lake County because the county wants to reduce siltation into Clear Lake. Siltation in Clear Lake carries nutrients into the lake which causes algae growth. Algae growth reduces tourism and tourism dollars during the summer. South Cow Mountain is used throughout the

year, but closed at predetermined moisture levels to prevent road damage, excessive trail damage, erosion and siltation.

The proposed action is to utilize the Federal Highway Administration to conduct the geotechnical planning and prioritize the repair segments on 2.2 miles of the Mendo-Lake Road. An experienced geotechnical engineer and road engineer would evaluate the 2.2 mile road segment and determine the possible improvements for various conditions and locations. Options for the road improvement could include:

- Place aggregate base, or aggregate base on fabric or geogrid
- Place recycled asphalt
- Consider aggregate binder such as emulsion or polymer
- Pave steep sections with asphalt or onsite mix.
- Modify road grading to improve drainage
- Improve drainage swales
- Improve several culverts

Considering repair options for various road sections, the Federal Highway administration would organize a repair program that is the most cost effective mix of work. The final repair recommendations should be made in consultation with local BLM staff with the goal to minimize future maintenance and improve safety. No road realignment will be required, so the work can be planned based on centerline stations and no extensive survey or detailed geometric design is anticipated.

Federal Highway Administration will coordinate the project by: 1) issuing contract; 2) providing contracting officer representative (COR); and 3) conducting project inspections during construction. BLM project lead will be assisting with project monitoring and inspections during construction.

Mitigation Measures:

Design features to minimize and/or eliminate mitigation will be incorporated in the proposed action.

Monitoring and Compliance

1. Roles:

Project lead – Bill Dabbs

Multi-Resource Staff: Compliance and monitoring:

2. Responsibilities:

Project lead – Responsible for compliance with mitigation measures and scope of this EA during the construction of the road.

3. Method:

Physical site inspections and photographs.

4. Reporting:

Written report of findings submitted to the Project Lead.

Alternative B –No Action

The Bureau of Land Management would continue to maintain (grade) the road annually without any road re-design or modification. Soil loss, sedimentation into Clear Lake, and air quality concerns would continue. Safety concerns would also remain on this segment of road.

Monitoring and Compliance:

There would be no need for event monitoring and compliance.

Chapter 3 – Affected Environment

The project area is a 2.2 mile long segment of the Mendo-Lake Road beginning at the west edge of the North Fork of Scotts Creek and to slightly beyond the intersection of Trail 17 on the eastern side of the Mendo-Lake Road. It is an area about 2.2 miles long 16 feet wide and would involve a surface area of about 4.27 acres. The project area is located in the Clear Lake watershed (no salmonid habitat).

This section of road has both in-sloped road with an inboard ditch and out-sloped portions and is in a predominantly clay soil type. The slopes on both sides of the road are with covered with oak, brush and knob cone pine trees. The Mendo-Lake Road is an arterial road to the entire South Cow Mountain Recreation Area and is heavily travelled by street-legal vehicles and off-highway-vehicles (OHV's). In the late spring and summer months, the road becomes "powder" like and soil easily become airborne with each passing vehicle.

The soils on the project site are the Maymen-Etsel-Mayacama Complex and the Maymen-Hopland-Mayacama Association. Both of which are "poorly suited" for suitability as roads based on factors such as slope, rock fragments on the surface, plasticity index, content of sand, and the hazard of soil slippage. Poorly suited soils also indicate that the soils have one or more unfavorable properties for roads that would require special design, extra maintenance, and costly alterations.

Chapter 4 Environmental Impacts

Impacts to Supplemental Authorities of Alternative A (Proposed Action):

The following are either not present or would not be affected by the proposed action: T&E Species, Areas of Critical Environmental Concern, Wetlands, Hazardous & Solid Wastes, Floodplains, Farm Lands, Environmental Justice, Native American Religious Concerns, Wild

and Scenic Rivers, Wilderness, Cultural Resources, Essential fish habitat, and Healthy Forest Initiative.

1. Air Quality: Affected. There would be minimal and short-term increase in particulate matter (dust emissions, vehicle and equipment emissions diesel and gasoline) during construction. After the project is completed summer dust emissions would be greatly reduced. There will be a temporary increase in emissions and fugitive dust during project construction due to construction equipment such as loaders, graders, water trucks, etc, will be responsible for the temporary increase. A water truck will be on site during construction to minimize fugitive dust production. The contractor will be required to comply with all Federal, State and local laws and regulations applicable to air quality.

2. Water Quality: Affected. Water quality would be temporarily affected negatively with construction activity increasing the sediment load into the watershed. Upon project completion water quality would be improved. No significant change in the total volume of water is expected, however the amount of soil carried off of the road should be greatly reduced once the gravel is compacted in place.

All parcels are within watershed governed by basin plans subject to federal and State Clean Water Acts. BLM would require full compliance with all applicable Federal, State and local laws, regulation and policies to protect both surface and ground water.

3. Invasive, Non-Native Species: Affected. The project site and material sources already have populations of yellow star thistle and medusa head present. Any ground disturbance would encourage an increase in the exotic, non native plant development, which would be curtailed but not eliminated by subsequent eradication efforts.

4. Climate Change: Rising greenhouse gas (GHG) levels are likely contributing to global climate change. In the Central Coastal region of California, climate change may result in warmer, drier conditions, and potentially more extreme weather events. The assessment of GHG emissions and climate change remains in its formative phase. The lack of scientific tools designed to predict climate change on regional or local scales limits the ability to quantify potential future impacts of climate change on resources within the Ukiah Field Office. In addition, while the proposed action and no action alternatives may involve some future contribution of GHGs, these contributions would not have a noticeable or measurable effect, independently or cumulatively, on a phenomenon occurring at the global scale believed to be due to more than a century of human activities. Neither the proposed action nor the no action alternative would authorize an increase in activities that would increase GHG emissions. The lack of scientific tools designed to predict climate change on regional or local scales limits the ability to quantify potential future impacts. However, potential impacts to air quality due to climate change are likely to be varied. For example, if global climate change results in a warmer and drier climate, increased particulate matter impacts could occur due to increased wind blown dust from drier and less stable soils. Cool season plant species' spatial ranges are predicted to move north and to higher elevations, and extinction of endemic threatened/endangered plants may be accelerated. Due to loss of habitat, or due to competition from other species whose ranges may shift northward, the population of some animal species may be reduced. Less snow

at lower elevations would be likely to impact the timing and quantity of snowmelt, which, in turn, could impact aquatic species.

Impacts to Other Resources:

Soils: Affected. There would be localized impacts to soils during construction. Short-term (duration of the onsite work) impacts during the installation of the new culverts with half round culverts being added, the placement of the gravel, the filling of the ruts, and potholes using current Best Management Practices would reduce the erosion that is currently taking place. Long-term impacts would be positive as the overall annual road maintenance needs for this segment, erosion, and sedimentation into the Clear Lake watershed would be decreased.

Recreation: Affected. The OHV area access road would be closed the Mendo-Lake Road from the western edge of the North Fork of Scotts Creek for about 2 miles to the intersection of Trail 17 for about 20 days during construction. Potential closure of the area during construction will be negotiated with BLM, FHA, and the contractor.

Although some visitors would be adversely affected by the temporary closing of the South Cow Mountain management unit, the long-term visitor experience would be enhanced by improving the access road and safety of the Mendo-Lake Road. The proposed action would result in an overall improvement of the quality of recreational resources and visitor satisfaction of the area.

Wildlife, Terrestrial: Affected. During construction, wildlife may be temporarily displaced.

Noise: Affected. During construction, noise levels would increase from operation of heavy equipment and dump trucks. As the project is adjacent to an OHV staging area it is not a completely quiet environment. However this would be a different kind of noise than visitors normally expect.

Impacts to Supplemental Authorities of Alternative B (No Action):

The following are either not present or would not be affected by the proposed action: T&E Species, Areas of Critical Environmental Concern, Wetlands, Hazardous & Solid Wastes, Floodplains, Farm Lands, Environmental Justice, Native American Religious Concerns, Wild and Scenic Rivers, Wilderness, Invasive Species, Cultural Resources, Essential fish habitat, and Healthy Forest Initiative.

Air Quality: Affected. Current levels of erosion and sedimentation into the Clear Lake watershed would continue.

Water Quality: Affected. If the road project is not completed, silt laden water from the project site would continue to flow into the Clear Lake Watershed. The existing culverts would

eventually fail creating a further increase in the sediment load into the Clear Lake Watershed through erosion of the road surface. Winter sediment loss will continue. Sediment load from Scotts Creek to Clear Lake would be remain the same or increase which in turn would enhance algae growth in Clear Lake.

Residual Effects:

The numbers of visitors (vehicles) could cause incremental damage to the road and facilities as access is improved from the east side of the recreation area. However, this area was designed and designated for recreational use and specifically for off-highway vehicle use.

Cumulative Effects:

BLM has made an effort to protect resources while accommodating recreation demands for general use. Projects are analyzed on a case by case basis. Although this is the first segment of the Mendo-Lake Road to be modified since the initial design, it is likely that other segments would be evaluated as road design practices and concepts have changed in the last 30 plus years. Cumulative effects of multiple segment modifications could result in negative short-term impacts with positive long-term benefits.

Summary of Alternatives:

Alternative A – Proposed Action

BLM would be to implement the suggestions of the DOT engineers for modification of the 2.2 miles of the Mendo-Lake Road.

Alternative B – No Action

The Bureau of Land Management would continue to maintain (grade) the road annually without any road re-design or modification.

Chapter 5 Consultation and Coordination

Persons, Groups, and Agencies Consulted:

Consultation with the Scotts Valley Band of Pomo Indians, Yokayo Tribe, Pinoleville Pomo Nation and Guidiville Indian Reservation of Pomo Indians were conducted for this project. Feedback from Pinoleville Pomo Nation stated that although they consider Cow Mountain a sensitive cultural area there are no records that suggests traditional cultural or archaeological sites in the project area. If any finds are discovered during the project, they would like to be notified.

Summary of Public Participation:

During preparation of the EA, the public was notified of the proposed action by posting on the Ukiah Field Office Internet NEPA webpage on March 4, 2009. A public comment period was offered from March 4, 2009 to April 30, 2009. As of May 5, 2009, no comments were received.



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Mendo-Lake Road Project **Finding of No Significant Impact** **October 2009**

It is BLM's determination that this decision will not result in significant impacts to the quality of the human environment. Anticipated impacts are within the range of impacts addressed by the Ukiah RMP and the project *environmental assessment*. Thus, the resurfacing of the Mendo-Lake Road Project does not constitute a major federal action having a significant effect on the human environment. This conclusion is based on consideration of the CEQ's following criteria for significance (40 CFR §1508.27), regarding the context and intensity of the impacts described in the EA and based on my understanding of the project:

- 1) *Impacts can be both beneficial and adverse and a significant effect may exist regardless of the perceived balance of effects.*
- 2) *The degree of the impact on public health or safety.*
- 3) *Unique characteristics of the geographic area.*
- 4) *The degree to which the effects on the quality of the human environment are likely to be highly controversial effects.* No anticipated effects have been identified that are scientifically controversial. As a factor for determining within the meaning of 40 C.F.R. § 1508.27(b)(4) whether or not to prepare a detailed environmental impact statement, "controversy" is not equated with "the existence of opposition to a use." *Northwest Environmental Defense Center v. Bonneville Power Administration*, 117 F.3d 1520, 1536 (9th Cir. 1997). "The term 'highly controversial' refers to instances in which 'a substantial dispute exists as to the size, nature, or effect of the major federal action rather than the mere existence of opposition to a use.'" *Hells Canyon Preservation Council v. Jacoby*, 9 F.Supp.2d 1216, 1242 (D. Or. 1998).
- 5) *The degree to which the possible effects on the human environment are likely to be highly uncertain or involve unique or unknown risks.*
- 6) *The degree to which the action may establish a precedent for future actions with significant*

effects or represents a decision in principle about a future consideration.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

8) The degree to which the action may adversely affect National Historic Register listed or eligible to be listed sites or may cause loss or destruction of significant scientific, cultural or historical resources.

9) The degree to which the action may adversely affect ESA listed species or critical habitat.

10) Whether the action threatens a violation of environmental protection law or requirements.

Based on the analysis of potential environmental impacts contained in the above referenced environmental assessment, and considering the significance criteria in 40 CFR 1508.27, it has been determined that the action will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

Rich Burns
Field Manager,
Ukiah Field Office

Date

United States Department of the Interior



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Mendo-Lake Road Project Decision Record DOI-BLM-CAC-0500-2009-0014 September 2009

1.0 Introduction and Background

BLM is proposing to analyze the re-surfacing of a segment (2.2 miles) of the Mendo-Lake Road that bisects the South Cow Mountain Recreation Area. BLM is working with Federal Highway Administration Department of Transportation (DOT) engineers to evaluate and develop the optimum remedy. This project is funded through the American Recovery and Reinvestment Act of 2009.

Access would utilize existing roads and state highways. Based on information in the Environmental Assessment (EA), the project record, and recommendations from BLM specialists, the following constitutes the decision.

2.0 Proposed Action

The potential actions are general in nature and diverse. This is necessary at this point as the Federal Highway Administration Department of Transportation (DOT) engineers will be developing alternatives with more detailed specifications. An environmental assessment is required prior to the DOT engineer's evaluation and development of design specifics.

The BLM Ukiah Filed Office would utilize the Federal Highway Administration to conduct the geotechnical planning and prioritize the repair segments on 2.2 miles of the Mendo-Lake Road. An experienced geotechnical engineer and road engineer would evaluate the 2.2 mile road segment and determine the possible improvements for various conditions and locations. Options for the road improvement could include:

- Place aggregate base, or aggregate base on fabric or geogrid
- Place recycled asphalt
- Consider aggregate binder such as emulsion or polymer
- Pave steep sections with asphalt or onsite mix.
- Modify road grading to improve drainage
- Improve drainage swales

- Improve several culverts

If approved, the work would be completed in Spring 2011.

3.0 Consultation and Coordination

There are no federally listed species known to occur in the project area; therefore, consultation with the US Fish and Wildlife Service was not necessary. Although the project is in a previously disturbed area, tribal consultation was initiated. Consultation with the Scotts Valley Band of Pomo Indians, Yokayo Tribe, Pinoleville Pomo Nation and Guidiville Indian Reservation of Pomo Indians were conducted for this project. Feedback from Pinoleville Pomo Nation stated that although they consider Cow Mountain a sensitive cultural area there are no records that suggests traditional cultural or archaeological sites in the project area. If any finds are discovered during the project, they would like to be notified.

4.0 Public Involvement

The EA was available for a formal 30-day public comment period as posted on Ukiah Field Office's internet website and a news release issued. No comments were received as of May 5, 2009.

5.0 Plan Consistency

Based on information in the EA, the project record, and recommendations from BLM specialists, this decision is consistent with the BLM Ukiah Field Office Resource Management Plan (September 2006), the Endangered Species Act; the Native American Religious Freedom Act; other cultural resource management laws and regulations; Executive Order 12898 regarding Environmental Justice; and Executive Order 13212 regarding potential adverse impacts to energy development, production, supply and/or distribution.

6.0 Decision and Rationale

6.1 Alternatives Considered but not Selected

The no action alternative would be to not take corrective action for this segment of the Mendo-Lake Road. This alternative does nothing to address the issue of erosion, sedimentation and safety concerns of the project site. The re-design of this segment of the road could provide information for future segment improvements with similar resource issues and design features. This alternative would not comply with the Ukiah Resource Management Plan (September 2006). Therefore, this alternative was not selected.

6.2 Decision and Rationale

It is the BLMs decision to complete the re-design recommendations of the DOT engineers for the 2.2 miles of the Mendo-Lake Road in the Cow Mountain Management Area. This will provide potential knowledge for future projects with these soil types. Concerns regarding erosion and

water quality impacts have been identified and will be addressed in the engineered designs.

Based on the analysis in the EA and summarized above, and the monitoring and measures to be implemented to mitigate the unexpected effects of the project, it is our conclusion that the erosion study will not result in substantial adverse effects.

7.0 Administrative Remedies

Administrative remedies may be available to those who believe they will be adversely affected by this decision. Appeals may be made to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of Interior, Board of Land Appeals (Board) in strict compliance with the regulations in 43 CFR Part 4. Notices of appeal must be filed in this office within 30 days after publication of this decision. If a notice of appeal does not include a statement of reasons, such statement must be filed with this office and the Board within 30 days after the notice of appeal is filed. The notice of appeal and any statement of reasons, written arguments, or briefs must also be served upon the Regional Solicitor, Pacific Southwest Region, U.S. Department of Interior, 2800 Cottage Way, E-1712, Sacramento, CA 95825.

The effective date of this decision (and the date initiating the appeal period) will be the date this notice of decision is posted on BLM's (Ukiah Field Office) internet website.

Rich Burns
Field Manager,
Ukiah Field Office

Date