

Visual Resources

Introduction

This section of the motorized travel management environmental analysis examines the extent to which alternatives respond to visual resources management direction established in the 1991 Modoc National Forest Land and Resource Management Plan (LRMP) and the Travel Management (TM) Rule. The LRMP visual resources direction was established under the implementing regulations of the National Forest Management Act (NFMA).

In the development of the Modoc National Forest's Land and Resource Management Plan, the Forest's visual resources were inventoried to determine the landscape's scenic attractiveness (Variety Class inventory) and the public's visual expectations (Sensitivity Level inventory). Based upon these inventories, Visual Quality Objectives (VQOs) were established for all Forest land areas. The VQO's establish minimum acceptable thresholds for landscape alterations from an otherwise natural-appearing Forest landscape. For example, areas with a Retention VQO are expected to retain a natural appearance; areas with a Partial Retention VQO may have some alterations, but they remain subordinate to the characteristic landscape; areas with a Modification VQO can have alterations that do not look natural appearing.

Roads and trails create linear alterations in landscapes that can be mitigated through sound design. Unmitigated, they present uncharacteristic line qualities in Forest landscapes. Landscapes with a dense canopy cover have the capability of masking these linear alterations; sparsely covered landscapes have less capability. The proliferation of unauthorized routes, particularly in sparsely covered landscapes, can adversely affect the Forest's visual resources.

Analysis Framework: Statute, Regulation, LRMP, and Other Direction

Direction relevant to the Proposed Action as it affects visual resources includes the following:

National Forest Management Act (NFMA)

The National Forest Management Act (NFMA), and its implementing regulations, required the inventory and evaluation of the Forest's visual resource, addressing the landscape's visual attractiveness, and the public's visual expectations. Management prescriptions for definitive lands areas of the Forest are to include Visual Quality Objectives.

Travel Management Rule

The TM Rule does not cite aesthetics specifically, but in the designation trails or areas, the Responsible Official must consider effects on Forest resources, with the objective of minimizing effects of motor vehicle use.

Modoc National Forest LRMP, as Amended

The LRMP contains Forest-wide management direction in the form of Visual Quality Objectives and specific management area direction for visual resources. The visual standards and guidelines in the LRMP applicable to motorized travel management include the following:

20. Visual Resources (Forest Standards and Guidelines)

- (G) Manage visual resources to prevent unacceptable alteration of landscapes by designing and implementing management activities to meet or exceed adopted Visual Quality Objectives (VQOs).

(G) Allow temporary departures of less than ten years and one VQO class to protect long-term visual values, such as in timbered areas highly susceptible to insect or disease epidemics.

(G) Capitalize on opportunities to achieve rehabilitation of unacceptable modification conditions during management activities with other resources.

(G) Meet assigned VQOs when activities are planned within the foreground zone of State Highways 139 and 299. Specific objectives are to:

Minimize the visual impact of all existing human-made structures. Locate new structures out of view, or mitigate the impact of them.

Blend treated vegetation with adjacent untreated areas for a natural appearance. No distinct edge between treated and untreated areas should be evident.

(Visual Resources standards and guidelines were not modified by the Sierra Nevada Forest Plan Amendment (SNFPA) or by the Northwest Forest Plan (NWFP) Final Environmental Impact Statement Record of Decision.)

Visual Retention Management Prescription – 7

p. 4-77 - Off-highway vehicle use is permitted, but with restrictions.

p. 4-78 – Manage for roaded natural dispersed recreation opportunities as defined in the Forest-wide standards and guidelines.

Random entry from main roads is discouraged by maintenance of ditches, natural barriers, vegetation, signing, etc. Use is subject to restrictions identified on the OHV map.

Areas with this prescription are open to off-highway vehicle (OHV) use if impacts cannot be seen from the primary roads.

Effects Analysis Methodology

Roads and trails can create a change in the natural-appearing landscape as measured in form, line, color, texture, and pattern. The visual effects of roads and trails can be described from different points of view: (1) the view of the surrounding landscape as seen by travelers on the route (the route is the viewshed); and (2) the view of the route by Forest visitors (hikers, campers, skiers, etc.) looking from other user areas.

The type of visual experience differs whether the landscape is viewed from a motorized, a non-motorized mode of travel (walking, hiking, skiing), or from a fixed viewpoint such as a user area. The speed of the traveler also has a direct relationship on the visual perception of landscape. The ability to identify and discern individual objects, and their relationship to the whole, become more difficult the faster you travel because you decrease the duration of the viewing period. Deviations from the natural landscape are hard to discern while driving in a vehicle at 35 to 65 mph. Those same deviations for a hiker on a trail become very evident because the viewing period increases dramatically.

The proposed alternatives have the potential to affect both the visual resource itself, as well as the Forest visitor's opportunity to view the resource. The degree of deviation from the natural-appearing landscape determines whether a route is in compliance with the VQO. The VQOs establish minimum acceptable thresholds for landscape alterations from an otherwise natural-appearing Forest landscape.

General Guidelines for Effects Analysis for Visual Resources

Spatial: The “viewshed” is the unit of spatial analysis when considering effects on visual resources.

Effects Time frames: Short-term effects occur within one year. Long-term effects occur up to 20 years.

Measurement Indicators and Rationale: The measurement indicators are intended to address how each action individually (direct and indirect effects), and each alternative as the sum total of its Proposed Actions (cumulative effects), respond to the LRMP and the TM Rule: whether the motorized recreation opportunity affects the natural appearance of the Forest landscapes.

Measurement Indicator: Compliance with the Retention and Partial Retention Visual Quality Objectives (VQOs) - For each alternative, determine the extent to which the proposed National Forest Transportation System (NFTS) falls within the Retention and Partial Retention VQOs (number of miles traversing landscapes that are to remain natural to near-natural appearing in character). Field-check representative samples to verify VQO compliance).

Impacts Relevant to Visual Resources

Non-characteristic line quality created by trail segments is the greatest impact to the visual resources—the location and design of these segments can significantly reduce their visual impact.

Assumptions Specific to Visual Resources Analysis

Based upon the review of the Modoc NF LRMP, the basic measurement indicator for the visual resources is in compliance with the Retention and Partial Retention VQOs.

The Preservation VQO is not addressed as it occurs only in designated wilderness areas. Motorized access is not authorized in designated wilderness.

The Modification VQO is not addressed, since this VQO allows for areas that have alterations, such as roads and trails that do not look natural.

The prohibition of cross-country, wheeled motorized vehicles should have a positive effect on the Forest’s visual resources.

Sensitivity level 1 roads and trails include all roads classified as “scenic highways”, and roads and trails leading directly to major areas of interest such as national parks, wilderness areas, major recreation areas, historic sites, recreation sites, and concentrated recreation areas.

All areas with a Semi-Primitive Recreation management prescription meet the direction for visual resources to meet or exceed the Partial Retention VQO.

For classification, analysis, and inventory of the visual resource landscape, viewing is identified by the distance zones of foreground (300 feet to 1/2 mile), middle ground (1/2 to 4 miles), and background (4 miles to the horizon).

Agriculture Handbook Number 462 (USDA Forest Service, 1974) provides a description of the VQO’s used for the visual management of lands administered by the Modoc National Forest.

Preservation – Only allows for ecological changes and all other management activities, except for very low visual impact recreation facilities, are prohibited.

Retention – Provides for management activities that are not visually evident and landscape character appears unaltered with only minimal deviations. Activities may only repeat form, line, color, and texture of the characteristic landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc. should not be evident.

Partial Retention – Provides for management activities that remain visually subordinate to the landscape and landscape character may appear slightly altered. Activities may repeat form, line, color, and texture of the characteristic landscape but changes in their qualities of size, amount, intensity, direction, pattern, etc. should remain visually subordinate to the characteristic landscape. Activities may also introduce form, line, color, or texture which are found infrequently or not at all in the characteristic landscape but still remain subordinate to the visual strength of the characteristic landscape.

Modification – Management activities may visually dominate the characteristic landscape. Activities such as roads should borrow naturally established form, line, color, and texture so completely and at such scale that its visual characteristics are compatible with the natural surroundings.

Data Sources

The Modoc LRMP data set was used to intersect route segments with the areas visual quality objectives of Partial Retention or Retention.

The Forest’s National Visitor Use Monitoring (NVUM) report determined that 75 percent of those who visited the Forest participated in viewing natural features such as scenery, flowers, etc. on National Forest System (NFS) lands. Thirty-seven percent of those participated in driving for pleasure on roads, and 30 percent participated in viewing wildlife, birds, fish, etc.

In 2008 the Forest received a “Landscape Character Description” report, written by Nicole Hill. This report was developed to support LRMP revision activities for the Modoc National Forest. The report found that “Travel management activities often provide the platform for viewing scenery. Most travel management activities make the landscape appear slightly altered. The activities, although noticeable, generally remain visually subordinate to the landscape character being viewed.”

Visual Resources Indicators

The extent to which the proposed additional roads falls within the Retention and Partial Retention VQOs as measured in the (number of miles traversing landscapes that are to remain natural to near-natural appearing in character).

Visual Resources Methodology, by Action

Direct and Indirect Effects of the Prohibition of Cross-Country Motorized Vehicle Travel

The prohibition of cross-country motorized vehicles should have a positive effect on the Forest’s visual resources because it would remove the chance of continued route proliferation and the impact to visual resources.

Methodology: GIS analysis of added routes in relation to location within Retention and Partial Retention VQO

Rationale: Any increase in the number of closed routes as measured against the No Action Alternative would lead to a general trend of improving visual resources in areas identified with a Retention and Partial Retention VQO.

Affected Environment and Environmental Consequences

Affected Environment

Large-scale uplift and faulting and volcanic activity have dominated the recent geologic history of the Modoc Plateau. Virtually the entire Forest landscape has evolved during the last five million years, and a significant portion of it during the last 0.75 million years from volcanic activity. These recent geologic processes have created a distinct landscape of mountain vistas, wide valleys, high-desert rocky plateaus, volcanic landscapes, and lakes.

The quality of the Modoc National Forest's scenic resources can be described as distinctive (30 percent), Typical (68 percent), and Indistinctive (2 percent) (2008 visual analysis).

Over the last 100 years, the visual quality of the Modoc Plateau has declined somewhat as power lines and pipelines with the associated ground disturbance have encroached on the natural environment. Surveys of Modoc National Forest recreation visitors found 58 percent were "very satisfied" with the general Forest scenery with 42 percent being "satisfied." Viewing natural features was the third-most popular activity for visitors on the Modoc National Forest (USDA Forest Service, 2001).

The Modoc National Forest is a recreation destination for California residents as well as visitors from neighboring states. The 1.6 million acre Forest is located in northeastern California along the southernmost portions of the Cascade Mountains, and on the western edge of the Great Basin. People are drawn to the area for its open spaces, remoteness, tranquility, beautiful scenery, and spirit of the west. Known as Modoc Country, a land "where the west still lives," the scenery is diverse, including mountains, pine Forests, meadows, lakes, streams, rugged canyons, wetlands, lava beds, and high-desert plateaus. This spectrum of contrasts provides for sweeping, expansive views and sparsely populated spaces. The variety of historic elements is rich in character and culture. Excellent wildlife and waterfowl viewing and hunting opportunities are found throughout the landscape. As part of the Pacific Flyway, migratory birds provide a spectacular show at specific locations in the Forest. Winding through various parts of the Forest, travelers enjoy viewing scenery and reliving history on scenic byways and auto tours, including the Modoc Volcanic Scenic Byway and Emigrant Trails Scenic Byway. (USDA, Modoc NF, 2008 Landscape Character Description)

Scenery

The pictures below are all from the "Landscape Character Description" of the Modoc National Forest prepared in August 2008 by Nicole Hill, Landscape Architect, in support of the Comprehensive Evaluation Report being developed to initiate the revision of our LRMP. These photos depict the landscapes found on the Modoc National Forest.

Figure 3-5. Typical landscape of Medicine Lake Lava Flows. View from Modoc Volcanic Historic Loop near Lava Beds National Monument



Figure 3-6 Homestead Flat viewed from South Warner Auto Loop Tour



Figure 3-7. Devil's Garden North of Big Sage Reservoir



Figure 3-8. View West From Hwy 139 (Highway fence prevented unauthorized routes.)



Figure 3-9. View of Highway 139 Corridor just Inside the Forest Boundary Looking North (Emigrant Trails Scenic Byway); note that highway fencing prevented unauthorized routes from developing along this corridor.



Figure 3-10. Fandango Valley Viewed from North Warner Auto Loop Tour



Figure 3-11. Warner Mountain uplift Viewed from Surprise Valley-Barrel Springs Backcountry Byway



Figure 3-12. Vegetation on Western Warner Mountain in North Parker Creek Drainage



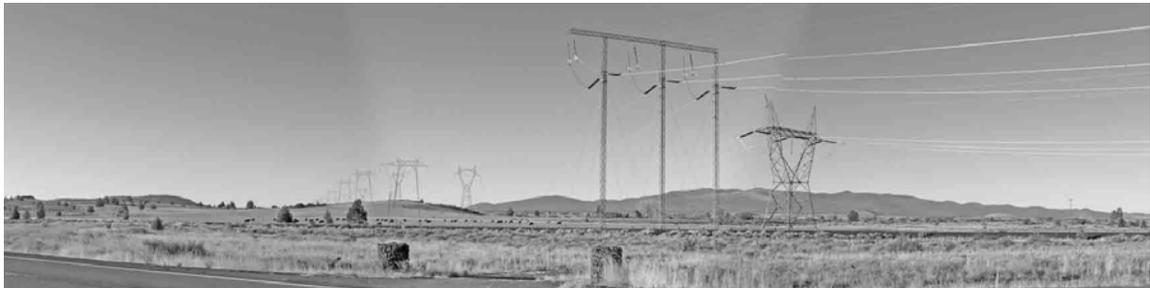
Figure 3-13. Regeneration Harvest Along Hunters Ridge Road



Figure 3-14. Vegetation and Landform Features near the Dibble Place on Ash Valley Road



Figure 3-15. Utility Corridor Viewed from Highway 139



Effects Common to all Alternatives

Roads and trails can create a change in the natural-appearing landscape as measured in form, line, color, texture, and pattern. As shown above in the photos of common landscapes of the Modoc National Forest system, authorized and unauthorized roads are generally not apparent in the middle or distance views of the Forest. As seen in Figure 3-6, the system maintenance level two road fits into the landscape, and is hardly noticeable. In Figure 3-13, the old regeneration harvests make some roads more apparent but they are subordinate in form, line, color, texture, and pattern to the regeneration harvest alone. The roads to and from the regeneration harvest in the uncut areas are not apparent.

As shown in Figures 3-13 and 3-15, vegetation manipulation (short-term visual impacts) and power lines (long-term visual impacts) are the main detractors from visual integrity on the Modoc National Forest. Authorized and unauthorized roads generally fit into the landscape and are accepted by the public as common and not seen as visual detractors. Scenery satisfaction was rated as good (65 percent) to very good (45 percent) for visitors at day use developed sites, and a

satisfaction rating of very good (100 percent) for visitors at Overnight Developed Sites. Visitors of the general Forest areas rated scenery at good (42 percent) and very good (58 percent), (2001 National Visitor Use Monitoring results).

In her evaluation of twelve distinct ecological landscapes, landscape architect Nichole Hill found for each of the landscapes that “Travel management activities often provide the platform for viewing scenery. Most travel management activities make the landscape appear slightly altered. The activities, although noticeable, generally remain visually subordinate to the landscape character being viewed.”

Highway fencing along State Highways 139 and 299 has prevented the development of unauthorized routes to or from these highways. Thus, all alternatives meet the standard and guideline that requires all activities to meet the assigned VQO along these routes.

Typical Views of Roads being added to the System

From a visual standpoint, the impact of new roads is not easily to detect. The foreground views are visible from the current road system only at the junction of the roads, and many small unauthorized roads are even difficult to find.

Figure 3-16. View of Unauthorized Spur Road from Level 3 Road. ML2054 is beginning to be hidden by vegetation.



Figure 3-17. Approaching unauthorized Road ML1300 from System Road 42A61A. The unauthorized road appears smaller and less used than the System road, which turns to the left.



Figure 3-18. Approaching unauthorized road ML 2046; the road is not visible.



Environmental Consequences

Prohibition of Cross-country Travel

Effects Common to All Action Alternatives (2-5)

Direct and Indirect Effects of prohibiting cross-country travel

Closing the Forest to cross-country travel would stop the creation of additional unauthorized routes by recreation users, thus preserving the visual character of the Forest.

Cumulative Effects of prohibiting cross-country travel

There would be limited cumulative effects of stopping cross-country travel. Over time stopping cross-country travel would allow tracks left by recreation users in the past to grow over and become more natural in appearance, thus adding to the roadless character of the areas.

Changes to NFTS

Direct and Indirect Effects of changes in NFTS

There would be no direct or indirect effects on the visual characteristics of the Forest. Seasonal use does not change the roadless characteristics of an area. Change in vehicle class will not affect visual characteristics of the Forest.

Cumulative Effects of changes in NFTS

Since there would be no direct or indirect effects on the visual character, there would be no cumulative effects when season of use or change in vehicle class is instituted in any of the alternatives.

Additions to NFTS

All alternatives have the potential to affect the existing landscape in any of the scenic integrity objectives (Table 3-30). All alternatives would retain 993 miles of existing system routes in the Partial Retention VQO and 208 miles in the Retention VQOs. Alternative 1 would not prohibit cross-country travel which would include the use of 491 miles of unauthorized routes within areas with Partial Retention and Retention VQOs and therefore this alternative has the highest impact on visual resources. Alternatives 2 and 5 would add 80.81 miles of unauthorized routes to the existing transportation system within the Partial Retention and Retention VQOs, and Alternative 4 would add 70.14 miles. Alternative 3 would have no additional routes available for use and would have the least amount of miles in each class, which reflects the existing system routes and the elimination of cross-country travel.

Table 3-30. Miles of Unauthorized Routes Added to the NFTS by VQO Class

Indicators – Visual Resources	Miles of Unauthorized Routes Added to the NFTS, by Alternative				
	Alt 1 (Miles)	Alt 2 (Miles)	Alt 3 (Miles)	Alt 4 (Miles)	Alt 5 (Miles)
Inventoried Unauthorized Routes in Partial Retention VQO	0	65.69	0	58	65.69
Inventoried Unauthorized Routes in Retention VQO	0	15.12	0	13	15.12
Total	0	80.81	0	71	80.81

Table 3-31. Combined Miles of NFTS and Unauthorized Routes by VQO Class

Indicators – Visual Resources	Combined Miles of NFTS and Unauthorized Routes				
	Alt 1 (Miles)	Alt 2 (Miles)	Alt 3 (Miles)	Alt 4 (Miles)	Alt 5 (Miles)
NFS & Unauthorized Routes in Partial Retention VQOs	963	1028.69	963	1021	1028
NFS & Unauthorized Routes in Retention VQOs	208	223.12	208	221	223
Total	1171	1251.81	1171	1242	1251

On the one hand, roads within Retention or Partial Retention areas provide viewing opportunities for a greater number of people. Reciprocally, limiting roads within these areas would be more beneficial to the scenery. The views in areas where there are fewer roads may be of a greater quality because of less dust and congestion. Furthermore, limiting roads, especially unauthorized routes that are not built and maintained to Forest Service standards will also reduce erosion which contributes to visual integrity.

Alternative 1 would provide the most opportunity for public travel cross-country which includes utilizing the unauthorized roads that currently exist. The quality of the scenic resources would not be as high as in Alternative 4 because cross-country travel would not be prohibited. Alternative 3 would prohibit cross-country travel and add no routes to the system. Therefore, it would have potential for the highest quality of scenic resource because unauthorized routes are no longer used and will eventually revegetate.

Alternative 4 emphasizes natural resource and habitat values, which are essential to the scenic management system’s underlying ecological aesthetic. Under the scenic management system, activities that improve Forest health also improve Forest aesthetics in order to reach the long-term desired condition stated in the LRMP. The alternative that best protects natural resources would thus best protect scenic resources, although fewer people would have access to the scenery.

Given the terrain and vegetation cover of the Modoc National Forest, adding the small percentage of roads within the Retention or Partial Retention categories would not have an adverse effect on the scenic values of the Forest.

Cumulative effects

Management of multiple resources has altered the natural landscape character, creating the existing condition of the landscape. The most obvious and significant effects on scenic resources are from vegetation and landform alterations. Multiple-resource management that has altered scenic resources includes, but is not limited to: timber management, mining, recreational facility development (including roads and trails, campgrounds and picnic grounds), utility corridors, fire management (suppression and prescribed burning), and livestock grazing.

A wide variety of use occurs on the Forest. This use, as well as new uses; are expected to continue in the future. Sightseeing and driving outdoors for pleasure are examples of activities that directly use roads as part of the recreational experience. The character of, and access to scenic views; will directly depend on the road system in place. Increasing the recreational use of areas may provide scenery benefits to more people. Alteration of road systems can disrupt long-established access and use patterns.

Placement, scale, class, and setting of roads can also greatly affect the quality of scenic views and access to outstanding scenic vistas. It is important to be aware of the indirect effects that roads have on the scenic resource. As demand for Forest recreational opportunities continues to grow,

the use of Forest roads will likely increase in congestion, and thus lower the quality of scenery. However use on the Modoc National Forest is expected to remain static and therefore use will continue to be low.

Given time, all actions within these alternatives are reversible; this includes the decommissioning of roads. The continued reduction of visual quality may be an irretrievable loss until full re-contouring and revegetation of decommissioned roads occur.

Compliance with the Forest Plan and Other Direction

All alternatives currently meet the objectives and standards and guidelines of the LRMP as amended. However, Alternative 1 could affect the foreground views in heavily used areas if unrestricted travel was to allow more roads and access to be created than the visual environment could absorb.