Visual Resources

Introduction

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

In the development of the SNF LRMP, the SNF visual resources were inventoried to determine the landscape 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 National Forest System land areas. The VQOs establish minimum acceptable thresholds for landscape alterations from an otherwise natural-appearing forest landscape. Agriculture Handbook Number 462 (USDA-FS 1974) provides a description of the VQOs used for the visual management of lands administered by the SNF:

> **(P) Preservation VQO** — Allows only for ecological changes. Management activities, except for very low visual impact recreation facilities, are prohibited. This objective applies to Congressionally-designated wilderness areas.
>
> **(R) Retention VQO** — Provides for management activities which are not visually evident. Activities may only repeat form, line, color and texture which are frequently found in the characteristic landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc. should not be evident.
>
> **(PR) Partial Retention VQO** — Provides for management activities that remain visually subordinate to the characteristic landscape. Activities may repeat form, line, color and texture common to the characteristic landscape but changes in their qualities of size, amount, intensity, direction, pattern, etc. 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.
>
> **(M) Modification VQO** — Management activities may visually dominate the characteristic landscape. Activities of vegetative and land form alterations must borrow from naturally established form, line, color and texture so completely and at such scale that its visual characteristics are compatible with the natural surroundings.

Of the four VQOs mentioned above, only Retention and Partial Retention VQOs will be addressed in this visual resources analysis because landscapes assigned these two VQOs retain a natural or near natural appearance. Also, according to the SNF Visual Quality Element Map, which shows the SNF VQOs, these two VQOs tend to be the most attractive or highly valued by the public outside Wilderness areas.

Analysis Framework: Statute, Regulation, Forest Plan (LRMP) and Other Direction

Direction relevant to the proposed action as it affects visual resources includes:

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 Travel Management Rule does not cite aesthetics (visual resources) specifically, but in the designation of trails or areas, the responsible official shall consider effects on forest resources, with the objective of minimizing effects of motor vehicle use.

Sierra NF LRMP. The LRMP contains forestwide management direction in the form of Visual Quality Objectives and specific management area direction for visual resources. The visual resources management direction in the LRMP applicable to Retention and Partial Retention VQOs and to Motorized Travel Management is listed below:

- Pg 4-13, Section 4.5.2.2 Visual Resources, #25: Meet visual quality objectives for all forest land, managing for Visual Condition Types II and III along designated recreational travel routes and around destination recreational areas (See Visual Quality Element Map). *Based on the Visual Quality Element Map, Visual Condition Type II corresponds with Retention VQO and Visual Condition Type III corresponds with Partial Retention VQO.*
- Pg 4-13, Section 4.5.2.2 Visual Resources, #26: Where visual quality objectives are Type II Visual Conditions (Retention VQO):
    - (d) Design and install structures to be compatible with and subordinate to the landscape's natural characteristics.
    - (e) Roads are to be designed and constructed to be subordinate to the landscape's natural characteristics, after completion, as viewed from off site.
- Pgs 4-13 and 4-14, Section 4.5.2.2 Visual Resources, #27: Where visual quality objectives are Type III Visual Conditions (Partial Retention VQO):
    - (e) Design and install structures to be compatible with and subordinate to the landscape's natural characteristics.
    - (f) Roads are to be designed and constructed to be subordinate, after completion, to the landscape's natural characteristics, as viewed from off site.

Effects Analysis Methodology

This Effects Analysis Methodology section describes the methodology used for addressing the direct and indirect effects of each of the three actions and the cumulative effects of implementing each alternative as a whole. It addresses the spatial boundary of the effects analysis, timeframes (short-term and long-term), visual resource indicators to be measured, including justification as to why they were chosen, impacts relevant to visual resources, visual resource-specific assumptions and sources of data used to support the analysis.

General Guidelines for Effects Analysis for Visual Resources

1. **Spatial**: The "key viewshed" is the unit of spatial analysis when considering effects on visual resources.
2. **Effects Timeframes**:
    - Short-term effects occur within 1 year.
    - Long-term effects occur up to 20 years.
    - Cumulative effects should be analyzed at a 20-year interval.

3. **Visual Resources Measurement Indicators and Rationale**: The Measurement Indicators are intended to address how each action individually (direct /indirect effects) and each alternative as the sum total of its proposed actions (cumulative effects) respond to the LRMP and the Travel Management Rule: whether the motorized recreation opportunity affects the natural appearance of the forest landscapes.
   - **Measurement Indicator 1: Retention and Partial Retention Visual Quality Objectives (VQOs) landscapes**. For each alternative determine the extent to which the proposed NFTS additions (roads, motorized trails, use areas) fall within sparsely canopy covered landscapes assigned the Retention and Partial Retention VQOs (number of miles or acres in landscapes that are to remain natural to near-natural appearing in character).
   - **Measurement Indicator 2: Key viewsheds**. For each alternative determine the number of key viewsheds that are or have the potential to be affected by motor vehicle travel (the extent to which the proposed NFTS additions within sparsely canopy covered landscapes assigned the Retention and Partial Retention VQOs are visible from key viewsheds). The designated recreational travel routes and destination recreational areas identified in the LRMP and in the LRMP-EIS are defined as key viewsheds for the purpose of this analysis.

Impacts Relevant to Visual Resources Include

1. 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.
2. Uncharacteristic changes in the natural landscape as measured in form, line, color and texture.
3. The proliferation of unauthorized routes and areas, particularly in sparsely canopy covered landscapes, can adversely affect the SNF visual resources.

Assumptions Specific to Visual Resources Analysis

1. Based upon the review of the LRMP, the basic Measurement Indicator for the visual resources should be Compliance with the Retention and Partial Retention VQOs.
2. The Preservation VQO is not addressed as it occurs only in Congressionally-designated wilderness and Special Classified Areas. Motorized access is not authorized in these areas.
3. The Modification VQO and Maximum Modification VQO are not addressed since these VQOs allow for areas to have alterations, such as roads and trails that may visually dominate the characteristic landscape and not appear natural.
4. Only the designated recreational travel routes and destination recreational areas identified in the LRMP and in the LRMP FEIS will be used as key viewsheds.
5. The prohibition of cross-country motor vehicle travel and the closure of roads should have a beneficial effect on the SNF visual resources. This assumes that nature will take its course, revegetating disturbances.
6. For classification, analysis and inventory of the visual resource landscape viewing is identified by the distance zones of immediate foreground (0 feet to 300 feet), foreground (300 feet to 1/2 mile) and middleground (1/2 mile to 4 miles).

7. The SNF visual quality objectives (VQOs) were established using the Visual Management System (VMS). The VMS was superseded by the Scenery Management System (SMS) in 1995 (USDA-FS 1995). The SNF has not yet converted to SMS and continues to use the VQOs. For this reason, the terminology and processes of the VMS, including the VQOs, will be used in this analysis instead of the SMS.
8. Landscapes with dense canopy cover have a high capability of masking linear ground-based alterations such as roads and trails.
9. The proposed NFTS additions (roads and motorized trails) are analyzed collectively because both create predominantly linear alterations in landscapes. The proposed NFTS additions (use areas) are analyzed separately from the proposed NFTS additions (roads and motorized trails) because they create alterations in landscapes as measured in form, color and texture.

Data Sources

1. LRMP for visual resources management direction and identification of key viewsheds.
2. SNF National Visitor Use Monitoring (NVUM) reports (USDA-FS 2003 and 2008) to determine the popularity of viewing scenery or driving for pleasure.
3. SNF Geographic Information System (GIS) corporate database using ESRI ArcMap Version 9.2 GIS software for effect analysis of the proposed NFTS additions in relation to VQOs, vegetation type and key viewsheds.

Visual Resources Methodology by Action

1. Direct/Indirect effects of the prohibition of cross-country motor vehicle travel.

The prohibition of cross-country motor vehicle travel would have a beneficial effect on the forest's visual resources because it would remove the chance of continued proliferation of unauthorized routes and unauthorized areas.

2. Direct/Indirect Effects of adding facilities (presently unauthorized roads, trails and/or areas) to the NFTS, including identifying seasons of use and vehicle class.

The proposed NFTS additions (roads, motorized trails and use areas) and their potentially associated landscape alterations as measured in form, line, color and texture may be visible from key viewsheds affecting visual resources in landscapes with Retention and Partial Retention VQOs. The dust and the physical presence of motor vehicles may also impact visual resources from key viewsheds. These effects can be both short and long term.

Short-term timeframe: 1 year.

Long-term timeframe: 20 years.

Spatial boundary: The "key viewshed" is the unit of spatial analysis when considering effects associated with changes in the NFTS or season of use.

Indicator 1: The extent to which the proposed NFTS additions (roads, motorized trails, use areas) fall within sparsely canopy covered landscapes assigned the Retention and Partial Retention VQOs (number of miles or acres in landscapes that are to remain natural to near-natural appearing in character).

Methodology: GIS analysis of proposed NFTS additions in relation to Retention and Partial Retention VQOs and vegetation type (overlay the proposed NFTS additions with the forest's VQOs of Retention and Partial Retention and the forest vegetation layer).

Indicator 2: Number of key viewsheds that are or have the potential to be affected by motor vehicle travel (the extent to which the proposed NFTS additions within sparsely canopy covered landscapes assigned the Retention and Partial Retention VQOs are visible from key viewsheds).

Methodology: Identify key forest viewsheds mentioned in the LRMP (designated recreational travel routes and destination recreational areas) and complete a viewshed analysis to portray which proposed NFTS additions are visible from each of the viewsheds and which additions cannot be viewed. Each viewshed takes into account a viewpoint, topography, direction of sight and distance of sight (EarthSLOT 2008). Along with the viewshed analysis, vegetation type is analyzed and site visits are conducted to identify whether any of these key viewsheds are or have the potential to be affected by motor vehicle travel.

Rationale: Compliance with the Retention and Partial Retention Visual Quality Objectives (VQOs).

3. Changes to the existing NFTS (changing season of use and year round prohibitions).

Changes to the vehicle class and season of use would have no effect on visual resources. However, the proposed year round road closures would have a beneficial effect on visual resources, particularly if road closures are within Retention and Partial Retention VQOs. The roads that are closed would still be retained as a facility in case they are needed for future management activities. However, the roads would require less maintenance allowing for potential natural revegetation of low grasses and low brushes to occur.

4. Cumulative Effects

The cumulative effects include the other past, present and reasonably foreseeable actions on the SNF that might contribute to the visual resources effects on key viewsheds. The threshold for cumulative effects is exceeded when alterations visually dominate the landscape (e.g. uncharacteristic linear qualities in forest landscapes).

Short-term timeframe: Not applicable; cumulative effects analysis will be done only for the long-term time frame.

Long-term timeframe: 20 years.

Spatial boundary: The “key viewshed” is the unit of spatial analysis for determining cumulative effects.

Indicator 2: Number of key viewsheds that are or have the potential to be affected by motor vehicle travel (the extent to which the proposed NFTS additions within sparsely canopy covered landscapes assigned the Retention and Partial Retention VQOs are visible from key viewsheds).

Methodology: Identify key forest viewsheds mentioned in the LRMP (designated recreational travel routes and destination recreational areas) and complete a viewshed analysis to portray which proposed NFTS additions are visible from each of the viewsheds and which additions cannot be viewed. Each viewshed takes into account a viewpoint, topography, direction of sight and distance of sight (EarthSLOT 2008). Along with the viewshed analysis, vegetation type is analyzed and site visits are conducted to identify whether any of these key viewsheds are or have the potential to be affected by motor vehicle travel and in the context of other past, present and reasonably foreseeable actions affecting visual resources.

Rationale: Compliance with the Retention and Partial Retention Visual Quality Objectives (VQOs).

Affected Environment / Environmental Consequences

The Affected Environment and Environmental Consequences sections pertain to the entire project area forestwide.

Affected Environment

The SNF exhibits diverse and distinctive landscape qualities highly suited to scenic appreciation (USDA-FS 1991a). The SNF National Visitor Use Monitoring (NVUM) report in 2003 determined that 31.9 percent of those who visited the forest participated in viewing natural features such as scenery, flowers, etc. and 13.2 percent participated in driving for pleasure on roads (NVUM 2003). The SNF 2008 NVUM report shows an increase in scenery appreciation with 51.3 percent of forest visitors participating in viewing natural features such as scenery (a 19.4 percent increase from 2003) and 13.6 percent participating in driving for pleasure (a .4 percent increase from 2003).

Few National Forests offer the range of scenic attractions found in the SNF. The forest landscape is quite diverse, ranging from steeply rolling chaparral and grass-woodland foothills to barren windswept crags on the Sierra Crest. The mid-elevations are characterized by steep-walled river canyons interspersed with gentler highly productive heavily forested areas. At the high elevations the knife-edged ridges, sharp peaks and steep-walled basins, frequently containing lakes, owe their form to the abrading action of glaciers. The steep-walled canyons and rolling topography of the lower elevations developed through water and wind erosion. Landscapes with the greatest variety of landforms, water features and vegetation are considered to be the most attractive (USDA-FS 1991).

The following chart summarizes the acres assigned each Visual Quality Objective. Over 26 percent of the SNF landscapes are assigned Retention and Partial Retention VQOs (the Retention and Partial Retention VQOs have been bold-faced to reinforce that these are the VQOs used in this analysis).

Visual Quality Objective	Acres	Percent
Preservation VQO	579,066	41%
Retention VQO	106,791	7%
Partial Retention VQO	264,255	19%
Modification VQO	467,996	33%

The following list illustrates the designated recreational travel routes and destination recreational areas identified in the LRMP and in the LRMP-EIS that are used as key viewsheds in this analysis.

Developed Recreational Areas
Bass Lake
Mammoth Pool
Huntington Lake
Florence/Edison Lakes
Shaver Lake
Courtright/Wishon Reservoirs
Pine Flat Reservoir
Dinkey Creek
Wild and Scenic Rivers
Merced, South Fork Merced (This recreational area includes State Highway 140)
Kings, South and Middle Fork Kings
State Highways and Major Forest Roads
State Highway 41
State Highway 168 (Sierra Heritage National Forest Scenic Byway)
State Highway 49
McKinley Grove Road
Scenic Byways
Sierra Vista National Forest Scenic Byway
Special Interest Areas
Courtright Intrusive Contact Zone Geological Area
Kings Cavern Geological Area
Carpenteria Botanical Area
Nelder Grove Historical Area
McKinley Grove Botanical Area
Dinkey Creek Roof Pendant Geological Area
Devils Peak Botanical Area

Environmental Consequences

Roads, motorized trails and use areas can create landscape alterations as measured in form, line, color and texture. These alterations can be reduced through good design. Unmitigated, they present uncharacteristic qualities in forest landscapes. Forested landscapes with a dense canopy cover have the capability of masking these alterations; sparsely canopy covered landscapes have less capability. The proliferation of unauthorized routes and unauthorized areas, particularly in sparsely canopy covered landscapes, can adversely affect the SNF visual resources.

The methodology for analyzing the direct, indirect and cumulative effects for the proposed NFTS additions (roads, motorized trails, use areas) of each Alternative is explained in further detail within the Figure 9 below, using the Effects Analysis Methodology (including indicators) discussed above. Site specific analyses were completed and are placed in the project record. The

site specific analyses for landscapes assigned Retention and Partial Retention VQOs were completed at a level sufficient to identify any site specific mitigations, support the analysis of each alternative and discrete action and complete the effects analysis methodology.

Figure 9. Method for analyzing Direct, Indirect and Cumulative Effects for the proposed NFTS Additions (roads, motorized trails and use areas)

Identify the total miles and acres of the proposed NFTS additions (roads, motorized trails and use areas) that are within Retention and Partial Retention VQOs. This is done through a GIS analysis of overlaying the proposed NFTS additions onto the forest's VQOs of Retention and Partial Retention. This data is shown below in: Table 64, Table 66, Table 68 and Table 70.

⇩

Of the total miles and acres of the proposed NFTS additions identified within Retention and Partial Retention VQOs, determine the total miles and acres that occur in sparsely canopy covered or non-canopy covered landscapes to narrow down the potential effects on visual resources. This is done through a GIS analysis of overlaying the vegetation type layer onto the proposed NFTS additions and the forest's VQOs of Retention and Partial Retention. This data is shown below in: Table 68, Table 70, Table 72 and Table 74.

⇩

Based upon the visual analysis and site visits, determine if the total miles and acres of the proposed NFTS additions that occur in sparsely canopy covered or non-canopy covered landscapes are visible from key viewsheds, including dust and the physical presence of motor vehicles. Through the ArcGIS Image Server Client (aerial photo) and site visits, determine if the proposed NFTS additions in sparsely canopy covered to non-canopy covered landscapes are in compliance with Retention and Partial Retention VQOs. Use this analysis, plus any other past, present and reasonably foreseeable actions for determining cumulative effects on key viewsheds.

Type of Effect: No Effect; Direct, Indirect, Cumulative

Nature of Effect:

Table 64. Summary of Miles for the Proposed NFTS Additions (Roads and Motorized Trails) within Retention VQO

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total miles Forestwide	**0**	**3.30**	**0**	**4.54**	**7.20**

Table 65. Summary of Miles for the Proposed NFTS Additions (Roads and Motorized Trails) within Retention VQO that are in Sparsely Canopy Covered or Non-canopy Covered Landscapes

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total miles Forestwide	**0**	**0.07**	**0**	**0.46**	**0.55**

Type of Effect: No Effect. The proposed NFTS additions (roads and motorized trails) within Retention VQO have no visual resources effects from key viewsheds.

Nature of Effect: There were 3.30 miles in Alt.2, 4.54 miles in Alt.4 and 7.20 miles in Alt.5 of proposed roads and motorized trails identified within Retention VQO. Of the 3.30 miles (Alt.2), only .07 miles of the proposed roads and motorized trails were identified in sparsely canopy covered or non-canopy covered landscapes. Of the 4.54 miles (Alt.4), only .46 miles of the proposed roads and motorized trails were identified in sparsely canopy covered or non-canopy covered landscapes. Of the 7.20 miles (Alt.5), only .55 miles of the proposed roads and motorized trails were identified in sparsely canopy covered or non-canopy covered landscapes. Based upon the viewshed analysis and site visits, the .07 miles in Alt.2, .46 miles in Alt.4 and .55 miles in Alt.5 are not visible from key viewsheds, including dust and the physical presence of motor vehicles because of the reasons listed below:

- "Walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) enframe the views on the sides of travel routes directing the viewer's attention inwards and screening views beyond the immediate foreground (0 to 300 ft). See Figure 10 and Figure 11.
- Views from recreational areas are enclosed by "walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) screening views beyond the immediate foreground (0 to 300 ft) or foreground (300 ft to1/2 mile). See Figure 12 and Figure 13.
- The proposed NFTS additions are outside the viewshed of immediate foreground (0 to 300 ft), foreground (300 ft to1/2 mile) and middleground (1/2 mile to 4 miles).

Based upon the use of the ArcGIS Image Server (aerial photo) and site visits, the proposed roads and motorized trails are not visually evident in the landscape resulting in compliance with the Retention VQO.

Table 66. Summary of Miles for the Proposed NFTS Additions (Roads and Motorized Trails) within Partial Retention VQO

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total miles Forestwide	**0**	**18.51**	**0**	**13.49**	**24.63**

Table 67. Summary of Miles for the Proposed NFTS Additions (Roads and Motorized Trails) within Partial Retention VQO that are in Sparsely Canopy Covered or Non-canopy Covered Landscapes

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total miles Forestwide	**0**	**1.55**	**0**	**2.84**	**3.37**

Type of Effect: No Effect. The proposed NFTS additions (roads and motorized trails) within Partial Retention VQO have no visual resources effects from key viewsheds.

Nature of Effect: There were 18.51 miles in Alt.2, 13.49 miles in Alt.4 and 24.63 miles in Alt.5 of proposed roads and motorized trails within Partial Retention VQO. Of the 18.51 miles (Alt.2), only 1.55 miles of the proposed roads and motorized trails were identified in sparsely canopy covered or non-canopy covered landscapes. Of the 13.49 miles (Alt.4), only 2.84 miles of the proposed roads and motorized trails were identified in sparsely canopy covered or non-canopy covered landscapes. Of the 24.63 miles (Alt.5), only 3.37 miles of the proposed roads and motorized trails were identified in sparsely canopy covered or non-canopy covered landscapes.

Based upon the viewshed analysis and site visits, the 1.55 miles in Alt.2, 2.84 miles in Alt.4 and 3.37 miles in Alt.5 are not visible from key viewsheds, including dust and the physical presence of motor vehicles because of the reasons listed below:

- "Walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) enframe the views on the sides of travel routes directing the viewer's attention inwards and screening views beyond the immediate foreground (0 to 300 ft). See Figure 10 and Figure 11.
- Views from recreational areas are enclosed by "walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) screening views beyond the immediate foreground (0 to 300 ft) or foreground (300 ft to 1/2 mile). See Figure 12 and Figure 13.
- The proposed NFTS additions are outside the viewshed of immediate foreground (0 to 300 ft), foreground (300 ft to 1/2 mile) and middleground (1/2 mile to 4 miles).

Based upon the use of the ArcGIS Image Server (aerial photo) and site visits, the proposed roads and motorized trails remain visually subordinate to the landscape resulting in compliance with the Partial Retention VQO.

Table 68. Summary of Acres for the Proposed NFTS Additions (Use Areas) within Retention VQO

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total acres Forestwide	**0**	**6.12**	**0**	**6.42**	**8.39**

Table 69. Summary of Acres for the Proposed NFTS Additions (Use Areas) within Retention VQO that are in Sparsely Canopy Covered or Non-canopy Covered Landscapes

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total acres Forestwide	**0**	**3.52**	**0**	**3.52**	**3.52**

Type of Effect: No Effect. The proposed NFTS additions (use areas) within Retention VQO have no visual resources effects from key viewsheds.

Nature of Effect: There were 6.12 acres in Alt.2, 6.42 acres in Alt.4 and 8.39 acres in Alt.5 of proposed use areas identified within Retention VQO. Of the 6.12 acres (Alt.2), 6.42 acres (Alt.4) and 8.39 acres (Alt.5), only 3.52 acres of the proposed use areas were identified in sparsely canopy covered or non-canopy covered landscapes. Based upon the viewshed analysis and site visits, the 3.52 acres are not visible from key viewsheds, including dust and the physical presence of motor vehicles because of the reasons listed below:

- Walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) enframe the views on the sides of travel routes directing the viewer's attention inwards and screening views beyond the immediate foreground (0 to 300 ft). See Figures Figure 10 and Figure 11.
- Views from recreational areas are enclosed by "walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) screening views beyond the immediate foreground (0 to 300 ft) or foreground (300 ft to 1/2 mile). See Figure 12 and Figure 13.
- The proposed NFTS additions are outside the viewshed of immediate foreground (0 to 300 ft), foreground (300 ft to 1/2 mile) and middleground (1/2 mile to 4 miles).

Based upon the use of the ArcGIS Image Server (aerial photo) and site visits, the proposed use area is not visually evident in the landscape resulting in compliance with the Retention VQO.

Table 70. Summary of Acres for the Proposed NFTS Additions (Use Areas) within Partial Retention VQO

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total acres Forestwide	**0**	**0**	**0**	**0.63**	**7.04**

Table 71. Summary of Acres for the Proposed NFTS Additions (Use Areas) within Partial Retention VQO that are in Sparsely Canopy Covered or Non-canopy Covered Landscapes

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Total acres Forestwide	**0**	**0**	**0**	**0**	**4.51**

Type of Effect: No Effect. The proposed NFTS additions (use areas) within Partial Retention VQO have no visual resources effects from key viewsheds.

Nature of Effect: There were .63 acres in Alt.4 and 7.04 acres in Alt.5 of proposed use areas identified within Partial Retention VQO. Of the .63 acres (Alt.4), no acres were identified in sparsely canopy covered or non-canopy covered landscapes. Of the 7.04 acres (Alt.5), only 4.51 acres of the proposed use areas were identified in sparsely canopy covered or non-canopy covered landscapes. Based upon the viewshed analysis and site visits, the 4.51 acres are not visible from key viewsheds, including dust and the physical presence of motor vehicles because of the reasons listed below:

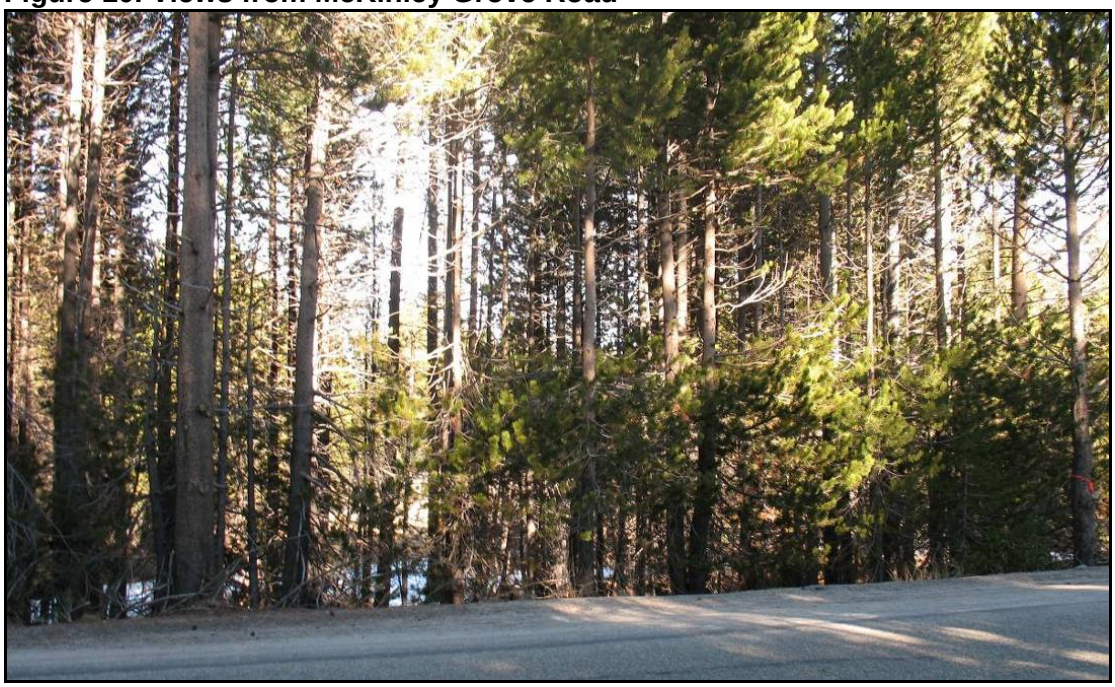
- Views from recreational areas are enclosed by “walls” of trees or earth forms (hillsides, rock cliffs, rolling hills) screening views beyond the immediate foreground (0 to 300 ft) or foreground (300 ft to 1/2 mile). See Figure 12 and Figure 13.
- The proposed NFTS additions are outside the viewshed of immediate foreground (0 to 300 ft), foreground (300 ft to 1/2 mile) and middleground (1/2 mile to 4 miles).

Based upon the use of the ArcGIS Image Server (aerial photo) and site visits, the proposed use areas remain visually subordinate to the landscape resulting in compliance with the Partial Retention VQO.

The pictures below were taken on December 5th and 6th of 2008 by Landscape Architect Cesar Sanchez of the SNF.

Figure 10 and Figure 11 show examples of how “walls” of trees or earth forms (hillsides, rock cliffs, rolling hills) enframe the views on the sides of travel routes directing the viewer’s attention inwards and screening views beyond the immediate foreground (0 to 300 feet).

Figure 10. Views from McKinley Grove Road



"Walls" of trees on the sides of the road screen views beyond the immediate foreground

Figure 11. Views from State Highway 41

Hillsides and "walls" of trees serve as the forces of enframement along the Highway

Figure 12 and Figure 13 show examples of how views from recreational areas are enclosed by "walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) screening views beyond the immediate foreground (0 to 300 ft) or foreground (300 ft to 1/2 mile).

Figure 12. Views from Dinkey Creek

"Walls" of trees and rock outcrops dominate the views in the immediate foreground

Figure 13. Views from Shaver Lake

Rolling hills and "walls" of trees surround the lake

See the effects analysis methodology and the environmental consequences sections discussed above regarding how the effects of each alternative were determined.

Alternative 1 – No Action

Continued Cross-Country Motor Vehicle Travel

Direct Effects

Under the No Action Alternative, cross-country motor vehicle travel would continue except as currently prohibited by the SNF 1977 Off-Road Vehicle (ORV) Plan implemented by Forest Order 15-77-3. The continued availability of unrestricted cross-country motor vehicle travel (generally below 6800') would create landscape alterations (i.e. uncharacteristic line quality) in natural-appearing forest landscapes that would affect visual resources.

Indirect Effects

There would be an increase of unauthorized routes and unauthorized areas degrading visual resources, potentially in landscapes with Retention and Partial Retention VQOs in key viewsheds.

Addition of Facilities

Direct Effects

No new facilities would be added to the NFTS resulting in no change in effect for visual resources.

Indirect Effects

No change in effect for visual resources.

Effects of the Existing NFTS

Direct Effects

No changes would be made to the existing NFTS resulting in no change in effect for visual resources.

Indirect Effects

No change in effect for visual resources.

Cumulative Effects

The No Action (Alternative 1) would have the greatest potential for causing effects on visual resources. The visual resources effects would be long term; the continued proliferation and concentration of unauthorized route segments and unauthorized areas would create uncharacteristic qualities in forest landscapes as measured in form, line, color and texture. The unauthorized routes and unauthorized areas may not be in compliance with Retention and Partial Retention VQOs. When added to the other past, present and reasonably foreseeable activities on the SNF, Alternative 1 would have the greatest potential for exceeding the cumulative effects threshold and causing visual resources effects in key viewsheds.

Past activities have altered the natural landscape, creating the existing condition of the landscape. The most obvious and significant effects on visual resources are from landform alterations, constructed facilities and vegetation manipulation. The activities that have contributed include: utilities, fire management (suppression, prescribed burning, fuel breaks/reduction), timber management, recreational facility development and others. Many of the impacts from these past activities have either been naturally revegetated or are hidden presently by the forested vegetative

landscape. Recreation facilities and utility lines are the most obvious effects on visual resources in the immediate foreground (0 to 300 ft) and foreground (300 ft to 1/2mile). Beyond the foreground, these constructed facilities and utilities are hidden in the forested landscape. Present activities on the SNF, for the most part, are not visible from key viewsheds, except in some occasions, the smoke and burned areas caused from prescribed burning. The smoke is a temporary effect and the burned areas will naturally revegetate with low grasses usually within a year. Current recreation projects mostly consist of rehabilitation of current facilities to update them to current design and universal accessibility standards. Reasonably foreseeable activities on the forest include: fuels management, grazing management, minerals and geology, non-recreation special uses, recreation management and road management. These future activities shall comply with the VQOs and applicable visual resources management direction specified in the LRMP to minimize effects on visual resources. The past, present and future activities on the SNF have no cumulative effects on visual resources from key viewsheds.

Alternative 3

Prohibition of Cross-country Travel

Direct Effects

The prohibition of cross-country motor vehicle travel would have a beneficial effect on the forest's visual resources because it would remove the chance of continued proliferation of unauthorized routes and unauthorized areas. Unauthorized routes and unauthorized areas that are decommissioned and not added to the National Forest Transportation System (NFTS) would result in natural revegetation and an associated enhancement of the visual resource. Improvement of the visual resource is long-term; unauthorized routes and unauthorized areas would gradually revegetate over time.

Indirect Effects

The prohibition of cross-country motor vehicle travel would enhance the natural-appearing forest landscape increasing visual quality, particularly in landscapes with Retention and Partial Retention VQOs. However, the prohibition of cross-country motor vehicle travel would prevent enjoyment of visual resources for those using motor vehicles at many locations, primarily from the unauthorized routes.

Addition of Facilities

Direct Effects

Under Alternative 3, no new facilities would be added to the NFTS resulting in no change in effect for visual resources. None of the currently unauthorized routes and unauthorized areas would be added to the NFTS under this Alternative.

Indirect Effects

No change in effect for visual resources.

Changes to the Existing NFTS

Direct Effects

No changes would be made to the existing NFTS resulting in no change in effect for visual resources.

Indirect Effects

No change in effect for visual resources.

Cumulative Effects

When actions in Alternative 3 are added to the other past, present and reasonably foreseeable activities on the SNF (as described under Alternative 1), there are no cumulative effects on visual resources from key viewsheds.

Common to Alternatives 2 – Proposed Action, Alternative 4 and Alternative 5

Prohibition of Cross-country Travel

Direct Effects

With the selection of any of these alternatives (Alternatives 2, 4 or 5), cross-country motor vehicle travel will be prohibited forestwide. The prohibition of cross-country motor vehicle travel would have a beneficial effect on the forest's visual resources because it would remove the chance of continued proliferation of unauthorized routes and unauthorized areas. Unauthorized routes and unauthorized areas that are decommissioned and not added to the National Forest Transportation System (NFTS) would result in natural revegetation and an associated enhancement of the visual resource. Improvement of the visual resource is long-term; unauthorized routes and unauthorized areas would gradually revegetate over time.

Indirect Effects

The prohibition of cross-country motor vehicle travel would enhance the natural-appearing forest landscape increasing visual quality, particularly in landscapes with Retention and Partial Retention VQOs.

Addition of Facilities

Direct and Indirect Effects

The addition of facilities to the NFTS have no direct and indirect effects on visual resources because the proposed NFTS additions (roads, motorized trails, use areas) are in compliance with Retention and Partial Retention VQOs and are not visible from key viewsheds, including dust and the physical presence of motor vehicles for one or more of the following reasons:

- "Walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) enframe the views on the sides of travel routes directing the viewer's attention inwards and screening views beyond the immediate foreground (0 to 300 ft).
- Views from recreational areas are enclosed by "walls" of trees or earth forms (hillsides, rock cliffs, rolling hills) screening views beyond the immediate foreground (0 to 300 ft) or foreground (300 ft to1/2 mile).
- The proposed NFTS additions are outside the viewshed of immediate foreground (0 to 300 ft), foreground (300 ft to1/2 mile) and middleground (1/2 mile to 4 miles).

Changes to the Existing NFTS

Direct Effects

Changes to the existing NFTS related to vehicle class and season of use would have no effect on visual resources. However, the proposed year round road closures identified under these Alternatives would have a beneficial effect on visual resources, particularly if the road closures are within Retention and Partial Retention VQOs. The roads that are closed would still be retained as a facility in case they are needed for future management activities. However, the roads would require less maintenance allowing for potential natural revegetation of low grasses and low brushes to occur.

Indirect Effects

No change in effect for visual resources.

Cumulative Effects

When actions in Alternatives 2, 4 and 5 are added to the other past, present and reasonably foreseeable activities on the SNF, there are no cumulative effects on visual resources from key viewsheds.

Summary of Effects Analysis across All Alternatives

The No Action (Alternative 1) has the greatest potential for causing visual resources effects in key viewsheds. Alternative 3 prohibits cross-country motor vehicle travel which would have a beneficial effect on the SNF visual resources, but would prevent enjoyment of visual resources for those using motor vehicles at many locations. The proposed NFTS additions in Alternatives 2, 4 and 5 have no direct, indirect and cumulative effects on visual resources. The tables below show the differences in total mileages and acreages for the proposed NFTS additions between Alternatives.

Table 72. Total Miles for the Proposed NFTS Additions (Roads and Motorized Trails)

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Miles in Retention VQO	0	3.30	0	4.54	7.20
Miles in Partial Retention VQO	0	18.51	0	13.49	24.63
Total Miles Forestwide	**0**	**21.81**	**0**	**18.03**	**31.83**

Alternative 5 would have the highest number of NFTS miles of roads and motorized trails within Retention and Partial Retention VQOs, but Alternative 1 with cross-country travel would have the greatest potential to impact the visual resources. Alternative 4 would have less NFTS miles than Alternative 2. Alternative 3 has the least impact of all alternatives because it does not add any facilities to the existing NFTS.

Table 73. Total Acres for the Proposed NFTS Additions (Use Areas)

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Acres in Retention VQO	0	6.12	0	6.42	8.39
Acres in Partial Retention VQO	0	0	0	.63	7.04
Total Acres Forestwide	**0**	**6.12**	**0**	**7.05**	**15.43**

Alternative 5 would have the highest number of NFTS acres of use areas within Retention and Partial Retention VQOs, but Alternative 1 with cross-country travel would have the greatest potential to impact the visual resources. Alternative 2 would have less NFTS acres than Alternative 4. Alternative 3 has the least impact of all alternatives because it does not add any facilities to the existing NFTS.

Compliance with the Forest Plan (LRMP) and Other Direction

All alternatives, except for Alternative 1, comply with the LRMP as amended, as well as with the National Forest Management Act (NFMA) and the Travel Management Rule. The proposed NFTS additions (roads, motorized trails, use areas) in each action alternative (Alternatives 2, 4 and 5) have no effect on visual resources and are in compliance with the Visual Quality Objectives of Retention and Partial Retention. All alternatives, except for Alternative 1, have no cumulative effects on key viewsheds as defined in the LRMP.

Alternative 1 does not prohibit cross-country motor vehicle travel below 6800 feet, allowing the proliferation of unauthorized routes and unauthorized areas to continue.