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Draft
Farmington Field Office
Visual Resource Management
Resource Management Plan Amendment

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BLM

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

TABLE OF CONTENTS

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1. PURPOSE AND NEED FOR ACTION

1.1. Background

The Bureau of Land Management (BLM) Farmington Field Office (FFO) is preparing this Environmental Assessment (EA) to amend Visual Resource Management (VRM) Classes for all surface lands managed by the FFO.

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archaeological values (43 United States Code 1701). The BLM is tasked with managing visual impact without unduly reducing commodity production or limiting overall program effectiveness.

The scenic value and management objectives of public lands vary, and it is not practical or desirable to provide a uniform level of visual management for all areas administered by the BLM. The agency has therefore developed a system for evaluating the visual resources of a given area and for determining what degree of protection, rehabilitation, or enhancement is desirable and possible. The BLM developed a systematic approach to managing scenery and visual resources of landscapes (BLM 2000). This system was used for the inventory of visual resources and evaluation of the predicted visual effects that could be created by proposed projects.

The purpose of the BLM VRM system is twofold: 1) to manage the quality of the visual environment and 2) to reduce the visual impact of development activities, while maintaining effectiveness in the BLM's resource programs. Managing the visual aspects of changes to the natural landscape is particularly important for the BLM because most activities taking place on BLM-managed lands involve some degree of alteration to the landscape. The BLM uses VRM Classes to identify the level of change to the existing visual character that is allowed.

1.2. Purpose and Need for Action

The purpose of the action is to designate VRM Classes and management for BLM-managed lands in the FFO. The need for the action is to respond to direction in the 2003 Farmington Resource Management Plan (RMP) that directed the designation of new VRM Classes following a Visual Resource Inventory (VRI). A VRI was completed for the BLM-managed lands in the FFO in 2009.

The 2003 Farmington RMP identified interim VRM Class designations that were to be used until a Visual Resource Inventory (VRI) was completed; however, a description or map identifying the location of these acres was not provided. These allocations do not correspond to allocations in the 1988 Farmington RMP or any other planning documents. Appendix C of the 2003 Farmington RMP prescribed VRM Classes for Areas of Critical Environmental Concern (ACECs) and Specially Designated Areas (SDAs). These allocations do not correspond with the interim designations. In addition, a number of areas were designated with more than one VRM Class, presenting further challenges to the implementation of VRM objectives in the FFO.

1.3. Decision to be Made

The BLM will determine if there are any significant environmental impacts associated with the preferred alternative, warranting further analysis in an Environmental Impact Statement (EIS). If no significant impacts are identified, the BLM will designate VRM Classes as described in the selected alternative for all BLM-managed lands in the FFO.

1.4. Conformance with Applicable Land Use Plan(s)

The Preferred Alternative and all action alternatives are in conformance with the 2003 Farmington RMP (BLM 2003b) in that it provided acres for each VRM Class pending the completion of a VRI (pages 2-20).

Changing the designation of VRM Classes is an allocation that requires an amendment to the RMP. Thus, this EA is being prepared as part of a Resource Management Plan Amendment (RMPA). The VRM allocations in all alternatives are consistent with other allocations made in the 2003 Farmington RMP.

1.5. Scoping and Issues

1.5.1. Scoping

The scoping process formally began with the publication of the Notice of Intent (NOI) in the Federal Register on June 13, 2011, documenting BLM's intent to prepare an RMPA and EA (43 FR 34249). The scoping period began June 13, 2011, and ended September 19, 2011. Throughout the scoping process, BLM staff made presentations to interested parties and invited interested individuals; organizations; affected federal, state, and local agencies; and affected Native American Tribes to submit comments to the BLM.

The BLM created and maintained a website to communicate information about the planning process.[1] The website houses the latest information on the development of the EA, including the NOI, timeline, Communication Plan, VRM manuals, an email address to send comments, and phone numbers to contact BLM specialists.

A press release was sent to the Farmington Daily Times and the Aztec Talon inviting the public to attend a public meeting to inform the public of plans to change VRM Classes. A public meeting notice was also posted on the project website. Twenty-five individuals signed in at the public meeting. Several additional individuals attended the meeting, but chose not to sign in.

Written scoping comments were accepted via mail, e-mail, public meeting, and fax resulting in a total of 14 responses, containing 38 comments. A response is defined as one email, fax, letter, or website submittal. A Farmington RMP Amendment for Visual Resource Management Scoping Report was compiled and finalized on September 28, 2011 (BLM, 2011).

1.5.2. Issues Analyzed

Planning issues are points of disagreement, debate, or dispute with a proposed action based on some anticipated environmental effect. Based on external and internal scoping, the following planning issues were identified:

- How will the designation of VRM Classes impact visual resources?
- How will the designation of VRM Classes impact cultural resources?
- How will the designation of VRM Management Classes be assigned to areas that have previously been leased under standard terms and conditions?
- How will the designation of VRM Classes relate to valid and existing rights?
- How will the designation of VRM Classes impact recreational experiences?
- How will the designation of VRM Classes impact land use authorizations?

1.5.3. Issues Not Analyzed

The following issues were considered during scoping for the amendment, but not carried forward for further analysis:

- How will the designation of VRM Classes impact the Old Spanish Trail National Historic Trail (NHT)?
  - A portion of the Old Spanish Trail NHT designated corridor passes through the FFO. The specific route of the trail remains largely speculative and trail ruts or other defining features have not been located within the FFO. Without knowing the location of the trail, it is not possible to analyze the

[1] http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/visual_resource_management.html

impacts of VRM Class designation. The National Park Service is currently preparing a management plan for the Old Spanish Trail NHT. That plan will address the appropriate management for the visual setting of the trail.

- How will the designation of VRM Classes impact Wilderness Areas and Wilderness Study Areas?
  - Wilderness Areas and Wilderness Study Areas are managed as VRM Class I in all alternatives. This management class preserves the existing character of the landscape.

1.6. Planning Criteria and Constraints

Planning criteria guide the development of the RMPA, ensure it is tailored to the identified issues, and deter unnecessary data collection and analysis. Planning criteria also streamline the amendment's preparation, establish standards, rules, and measures to be used; guide and direct the resolution of issues through the planning process; and indicate factors and data that must be considered in making decisions.

The following general planning criteria were considered in developing the RMPA:

- The amendment will comply with all applicable laws, executive order, regulations, and current policies.
- The amendment will respect all valid existing rights.
- The amendment will be structured to be complementary to the framework used in the 2003 Farmington RMP. Decisions will be made for each ACEC and SDA as done in the 2003 Farmington RMP.
- VRM Class designations will be consistent with allocations made in the 2003 Farmington RMP.
- VRM Class I or II designations will not be applied to areas made available for oil and gas leasing under standard terms and conditions in the 2003 Farmington RMP (144 IBLA 70).
- The amendment will only apply to BLM-managed lands.

2. ALTERNATIVES

2.1. How to Read This Chapter

Chapter 2 presents alternative management direction for managing visual resources in the FFO. The majority of the chapter contains sections detailing the goals, objectives, allocations, and management actions for each alternative. Goals, objectives, allocations, and management actions are identified by section and organized under the following headings:

- **Management Common to the No Action Alternative and All Action Alternatives** – This heading contains goals, objectives, allocations, and management actions that apply to every alternative.
- **Management Specific to the No Action Alternative** – This heading contains goals, objectives, allocations, and management actions specific to the No Action Alternative.
- **Management Common to the Action Alternatives** – This heading contains goals, objectives, allocations, and management actions that apply to all of the action alternatives, but not to the No Action Alternative.
- **Management Specific to Alternative A** – This heading contains goals, objectives, allocations, and management actions that apply to Alternative A and that are not common to all of the action alternatives.
- **Management Specific to Alternative B** – This heading contains goals, objectives, allocations, and management actions that apply to Alternative B and that are not common to all of the action alternatives.
- **Management Specific to Alternative C** – This heading contains goals, objectives, allocations, and management actions that apply to Alternative C and that are not common to all of the action alternatives.

In order to understand the complete suite of all management for a specific action alternative, the reader is encouraged to read guidance under *Management Common to the No Action Alternative and All Action Alternatives*, *Management Common to All Action Alternatives*, and finally, management guidance specific to each alternative.

Each goal, objective, allocation, and management action is assigned a reference code to facilitate public comment by giving the public the ability to target their comments to specific items without repeating entire phrases or struggling with page and paragraph numbers. Codes are broken into four components for easy identification of the section, alternative, decision type, and order of appearance in the document.

The first component of the reference code (i.e., VR) is to reference the resource for which decisions are being made (i.e., Visual Resources).

The second component of the reference code identifies the alternative under which the item appears. The codes and their corresponding alternatives are identified in Table 1. This information is presented in the order in which it appears in Chapter 2. These headings only appear in Chapter 2 when there are items in those categories.

Table 1. Alternative Codes

Code	Alternative
CA	Management Common to the No Action Alternative and All Action Alternatives
NA	Management Specific to the No Action Alternative
CAA	Management Common to All Action Alternatives
A	Management Specific to Alternative A
B	Management Specific to Alternative B
C	Management Specific to Alternative C

The third component of the code identifies the decision type. The codes and their corresponding decision type are identified in Table 2.

Table 2. Decision Type Codes

Code	Decision Type
G	Goal
O	Objective
A	Allocation
MA	Management Action

The fourth component of the code identifies the order in which the item appears within a section, alternative, and decision type. Sequential numbering is used for this code.

Acreages used in the alternatives, including the No Action Alternative[2], are approximate and serve for comparison and analytic purposes only. Data from GIS have been used in developing acreage calculations and are rounded to the nearest hundred acres. Readers should not infer that they reflect exact measurements or precise calculations.

VRM Classes apply only for BLM-managed surface lands in the FFO and only these lands are included in any Geographic Information System (GIS) acreage calculations and are rounded to the nearest 1,000 acres, unless finer distinction is needed for comparison purposes. Readers should not infer that they reflect exact measurements or precise calculations.

Because the VRM Classes are the only allocation that will be amended by this RMPA/EA, VRM Classes for all alternatives are consistent with decisions and allocations that were made in the 2003 Farmington RMP. In addition, all decisions in the alternatives described below are subject to valid and existing rights.

2.2. Summary of Alternatives

The No Action Alternative would continue to implement the VRM Classes identified in the 2003 Farmington RMP. Alternative A (Preferred Alternative) focuses on providing a balance between resource uses and the retention of visual resource values. Alternative B allows for more modification of the visual character of BLM-managed lands in the FFO. Alternative C allows for more retention of the visual character of the BLM-managed lands in the FFO.

Table 3 provides a summary of the VRM Class designations by alternative. A summary of the VRM Class designations by alternative for each Area of Critical Environmental Concern (ACEC) and Specially Designated Area (SDA) is located in Appendix A.

Table 3. Summary of Alternatives

VRM Class	No Action Alternative	Alternative A (Preferred Alternative)	Alternative B	Alternative C
VRM I	55,000	51,000	51,000	48,000
VRM II	60,000	90,000	319,000	3,000
VRM II/III	51,000			
VRM III	107,000	418,000	1,077,000	272,000
VRM II/IV	41,000			
VRM II/III/IV	54,000			
VRM III/IV	1,066,000			
VRM IV	42,000	890,000		1,126,000

[2] While the acreages reported in the 2003 Farmington RMP, they were calculated using GIS, which contains a degree of error. Those acreages have been rounded in this document to account for that error.

2.3. No Action Alternative

2.3.1. Goal

VR-NA-O- 1. Systematically identify and evaluate these resources to determine an appropriate level of management, then manage all activities to meet that level.

2.3.2. Allocations

Pages 2-20 of the 2003 Farmington RMP states 83,433 acres are to be managed as VRM Class I, 560,143 acres as VRM Class II, 1,104,717 acres as VRM Class III, and 2,32,810 acres as VRM Class II/IV; however, a description or map identifying the location of these acres was not provided. The allocations identified in this document are taken from management prescribed for Areas of Critical Environmental Concern (ACECs) and Specially Designated Areas (SDAs) as identified in Appendix C of the 2003 Farmington RMP. VRM Classes were not identified for the remainder of the planning area; management equivalent to that of VRM Class IV.

VR-NA-A- 1. Areas to be managed as VRM Class I (55,000 acres) would include:

- Ah-Shi-Sle-Pah WSA
- Andrew's Ranch ACEC
- Bee Burrow ACEC
- Bis Sa'ani ACEC
- Bisti/De-Na-Zin Wilderness
- Casa Del Rio Chaco Culture Archaeological Protection Site
- Casamero Community ACEC
- Fossil Forest RNA
- Greenlee Ruin Chaco Culture Archaeological Protection Site
- Halfway House ACEC
- Indian Creek ACEC
- Jacques Chacoan Community ACEC
- Kin Nizhoni ACEC
- Lake Valley Chaco Culture Archaeological Protection Site
- Morris 41 ACEC
- Negro Canyon SDA
- Pierre's Site ACEC
- Thomas Canyon Recreation / Wildlife Area - original extent
- Toh-La-Kai ACEC
- Twin Angels ACEC
- Upper Kin Klizhin ACEC

VR-NA-A- 2. Areas to be managed as VRM Class II (60,000 acres) would include:

- Adams Canyon ACEC
- Ah-shi-sle-pah Road ACEC
- Albert Mesa ACEC
- Angel Peak ACEC
- Angel Peak Scenic Area
- Ashii Naa'a (Salt Point) ACEC
- Bald Eagle ACEC
- Bi Yaazh ACEC
- Blanco Mesa ACEC
- Blanco Star Panel ACEC
- Cagle's Site ACEC
- Canyon View Ruin ACEC
- Carracas Mesa Recreation / Wildlife Area
- Cedar Hill ACEC
- Chacra Mesa Complex ACEC
- Cho'li'I (Gobernador Knob) ACEC
- Christmas Tree Ruin ACEC
- Church Rock Outlier ACEC
- Cottonwood Divide ACEC
- Crownpoint Steps and Herrudura ACEC
- Deer House ACEC
- Delgadita / Pueblo Canyons ACEC
- Devil's Spring Mesa ACEC
- Dogie Canyon School ACEC
- Dzil'na'oodlii (Huerfano Mesa) ACEC
- East Side Rincon ACEC
- Encierro Canyon ACEC
- Encinada Mesa-Carrizo Canyon ACEC (including Adolfo Canyon Special Management Area [SMA], Big Star ACEC, Carrizo Cranes ACEC, Gomez Canyon Ruin SMA, Gomez point ACEC, Hill Road Ruin SMA, NM 01-39236 ACEC, and Rabbit Tracks ACEC)
- Farmer's Arroyo ACEC
- Frances Mesa ACEC
- Four Ye'i ACEC
- Gonzalez Canyon - Senon S. Vigil Homestead ACEC
- Gould Pass Camp ACEC
- Haynes Trading Post ACEC
- Holmes Group ACEC

- Hummingbird ACEC
- Hummingbird Canyon ACEC
- Kachina Mask ACEC
- Kin Yazhi (Little House) ACEC
- Kiva ACEC
- La Jara ACEC
- Largo Canyon Star Ceiling ACEC
- Margarita Martinez Homestead ACEC
- Martin Apodaca Homestead ACEC
- Martinez Canyon ACEC
- Moss Trail ACEC
- Munoz Canyon ACEC
- North Road ACEC
- Pointed Butte ACEC
- Pork Chop Pass ACEC
- Pregnant Basketmaker ACEC
- Pretty Woman ACEC
- Prieta Mesa ACEC
- Reese Canyon RNA
- Rincon Largo District ACEC
- Rincon Rock Shelter ACEC
- Rock House - Nestor Martin Homestead ACEC
- San Rafael Canyon ACEC
- Santos Peak ACEC
- Shield Bearer ACEC
- Simon Canyon ACEC
- Simon Ruin ACEC
- Star Rock ACEC
- Star Spring - Jesus Canyon ACEC
- String House ACEC
- Superior Mesa (including Cibola Canyon ACEC, Superior Mesa Community ACEC, Overlook Ruins District SMA, and Hooded Fireplace and Largo School District ACEC)
- Tapacito and Split Rock ACEC
- Truby's Tower ACEC

VR-NA-A- 3. Areas to be managed as VRM Class II or III (51,000 acres) would include:
- Crow Canyon ACEC
- The Hogback ACEC
- Middle Mesa Wildlife Area

VR-NA-A- 4. Areas to be managed as VRM Class III (107,000 acres) would include:
- Alien Run Mountain Bike Trails
- Betonnie Tsosie Fossil Area
- Bohanon Canyon Fossil Complex
- Carson Fossil Pocket
- East La Plata Wildlife Area
- Encinada Mesa - Carrizo Canyon ACEC
- Frances Mesa ACEC
- Glade Run Recreation Area
- Navajo Lake Horse Trails
- Pinon Mesa Fossil Area
- Pinon Mesa Recreation Area
- Rock Garden Recreation Area
- Superior Mesa ACEC
- Thomas Canyon Recreation / Wildlife Area

VR-NA-A- 5. Areas to be managed as VRM Class II or IV (41,000 acres) would include:
- Rosa Mesa Wildlife Area

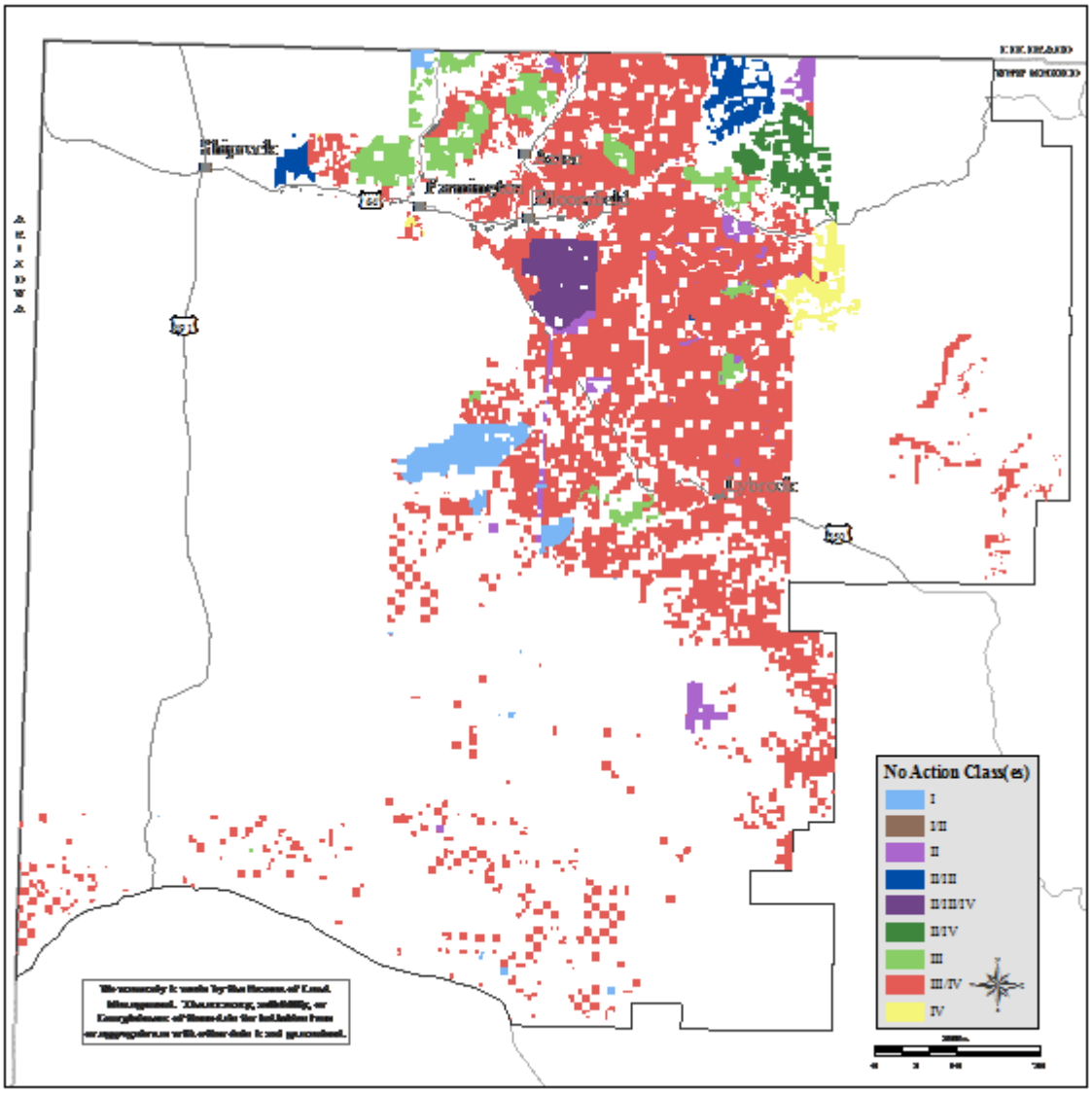
VR-NA-A- 6. Areas to be managed as VRM Class II, III, or IV (54,000 acres) would include:
- Ephemeral Wash Riparian Area
- Kutz Canyon Fossil Area

VR-NA-A- 7. The remainder of the area would be managed as VRM Class III or IV (1,066,000 acres). Specifically, the following areas would be managed as VRM Class III or IV:
- Crow Mesa Wildlife Area
- Ensenada Mesa Wildlife Area
- Gonzales Mesa Wildlife Area
- Lybrook Fossil Area
- Rattlesnake Canyon Wildlife Area

VR-NA-A- 8. Areas to be managed as VRM Class IV (42,000 acres) would include:
- Beechatuga Tongue Geological Formation
- Cereza Canyon Wildlife Area
- Dunes Vehicle Recreation Area
- Gobernador and Cerza Canyon Fossil Area
- Head Canyon Motocross Track
- Laguna Seca Mesa Wildlife Area
- Mexican Spotted Owl ACEC

See Figure 1 for the locations of areas allocated to each VRM Class.

Figure 1. VRM Classes in the No Action Alternative



2.3.3. Management Actions

VR-NA-MA- 1. Mitigation measures for visual resources listed below apply primarily to mineral extraction activities and are not all-inclusive. Additional mitigation measures for mineral extraction or other program activities may be developed and implemented as necessary.

- Operators may be required, on a case-by-case basis, to leave a tree screen on one or more sides of a location.
- Above-ground structures are required to be painted in one of five colors designated to blend with the natural color of the landscape.
- Permit holders are required to coordinate with the Authorized Officer on the design and color of power poles and transmission lines to achieve minimal practicable visual impacts.
- Permit holders may be required to reconstruct rock rims as near as possible to the original (RMP, 2-20)

2.4. Alternative A (Preferred Alternative)

2.4.1. Goal

VR-A-G- 1. Maintain visual resource characteristics and values of public lands according to VRM Classes.

2.4.2. Allocations

VR-A-A- 1. Areas to be managed as VRM Class I (51,000 acres) would include:

- Ah-Shi-Sle-Pah WSA
- Andrew's Ranch ACEC
- Bee Burrow ACEC
- Bis Sa'ani ACEC
- Bisti/De-Na-Zin Wilderness
- Casamero Community ACEC
- Fossil Forest RNA
- Halfway House ACEC
- Indian Creek ACEC
- Kin Nizhoni ACEC
- Morris 41 ACEC
- Pierre's Site ACEC
- Toh-La-Kai ACEC
- Twin Angels ACEC
- Upper Kin Klizhin ACEC

VR-A-A- 2. Areas to be managed as VRM Class II (82,000 acres) would include:

- Adams Canyon ACEC
- Ah-shi-sle-pah Road ACEC
- Alien Run Mountain Bike Trails
- Angel Peak ACEC
- Angel Peak Scenic Area
- Ashii Naa'a (Salt Point) ACEC
- Bi Yaazh ACEC
- Beechatuga Tongue Geological Formation
- Blanco Mesa ACEC
- Blanco Star Panel ACEC
- Cagle's Site ACEC
- Canyon View Ruin ACEC
- Chacra Mesa Complex ACEC
- Cho'li'I (Gobernador Knob) ACEC
- Christmas Tree Ruin ACEC
- Church Rock Outlier ACEC
- Crow Canyon ACEC
- Crownpoint Steps and Herrudura ACEC
- Deer House ACEC
- Delgadita / Pueblo Canyons ACEC
- Devil's Spring Mesa ACEC
- Dogie Canyon School ACEC
- Dzil'na'oodlii (Huerfano Mesa) ACEC
- East Side Rincon ACEC
- Encierro Canyon ACEC
- Encinada Mesa - Carrizo Canyon ACEC
- Farmer's Arroyo ACEC
- Four Ye'i ACEC
- Frances Mesa ACEC
- Gonzalez Canyon - Senon S. Vigil Homestead ACEC
- Gould Pass Camp ACEC
- Haynes Trading Post ACEC
- Holmes Group ACEC
- Hummingbird ACEC
- Kahina Mask ACEC
- Kin Yazhi (Little House) ACEC
- Kiva ACEC
- Largo Canyon Star Ceiling ACEC
- Margarita Martinez Homestead ACEC
- Martin Apodaca Homestead ACEC
- Martinez Canyon ACEC
- Moss Trail ACEC
- Munoz Canyon ACEC
- Navajo Lake Horse Trails
- Negro Canyon SDA
- North Road ACEC
- Pointed Butte ACEC
- Pregnant Basketmaker ACEC
- Pretty Woman ACEC
- Prieta Mesa ACEC
- Rincon Largo District ACEC
- Rincon Rock Shelter ACEC
- Rock House - Nestor Martin Homestead ACEC
- San Rafael Canyon ACEC
- Santos Peak ACEC
- Shield Bearer ACEC
- Simon Canyon ACEC
- Simon Ruin ACEC
- Star Spring - Jesus Canyon ACEC
- Star Rock ACEC
- Superior Mesa ACEC
- Tapacito and Split Rock ACEC
- Thomas Canyon Recreation / Wildlife Area
- Truby's Tower ACEC

VR-A-A- 3. Areas to be managed as VRM Class III (426,000 acres) would include:

- Bald Eagle ACEC
- Betonnie Tsosie Fossil Area
- Carracas Mesa Recreation / Wildlife Area
- Carson Fossil Pocket
- Cedar Hill ACEC
- Cereza Canyon Wildlife Area
- Crow Mesa Wildlife Area
- East La Plata Wildlife Area
- Ensenada Mesa Wildlife Area
- Ephemeral Wash Riparian Area (100 yr)
- Glade Run Recreation Area
- Gobernador and Cerza Canyon Fossil Area
- Gonzales Mesa Wildlife Area
- The Hogback ACEC
- Kutz Canyon Fossil Area
- La Jara ACEC
- Laguna Seca Mesa Wildlife Area
- Lybrook Fossil Area
- Mexican Spotted Owl ACEC
- Pinon Mesa Fossil Area
- Pinon Mesa Recreation Area
- Rattlesnake Canyon Wildlife Area
- Reese Canyon RNA
- River Tracts ACEC
- Rock Garden Recreation Area
- Rosa Mesa Wildlife Area
- Middle Mesa Wildlife Area

VR-A-A- 4. The remainder of the area would be managed as VRM Class IV (890,000 acres). Specifically, the following areas would be managed as VRM Class IV:

- Bohanon Canyon Fossil Complex
- Dunes Vehicle Recreation Area
- Head Canyon Motocross Track

See Figure 2 for the locations of areas allocated to each VRM Class.

2.4.3. Management Actions

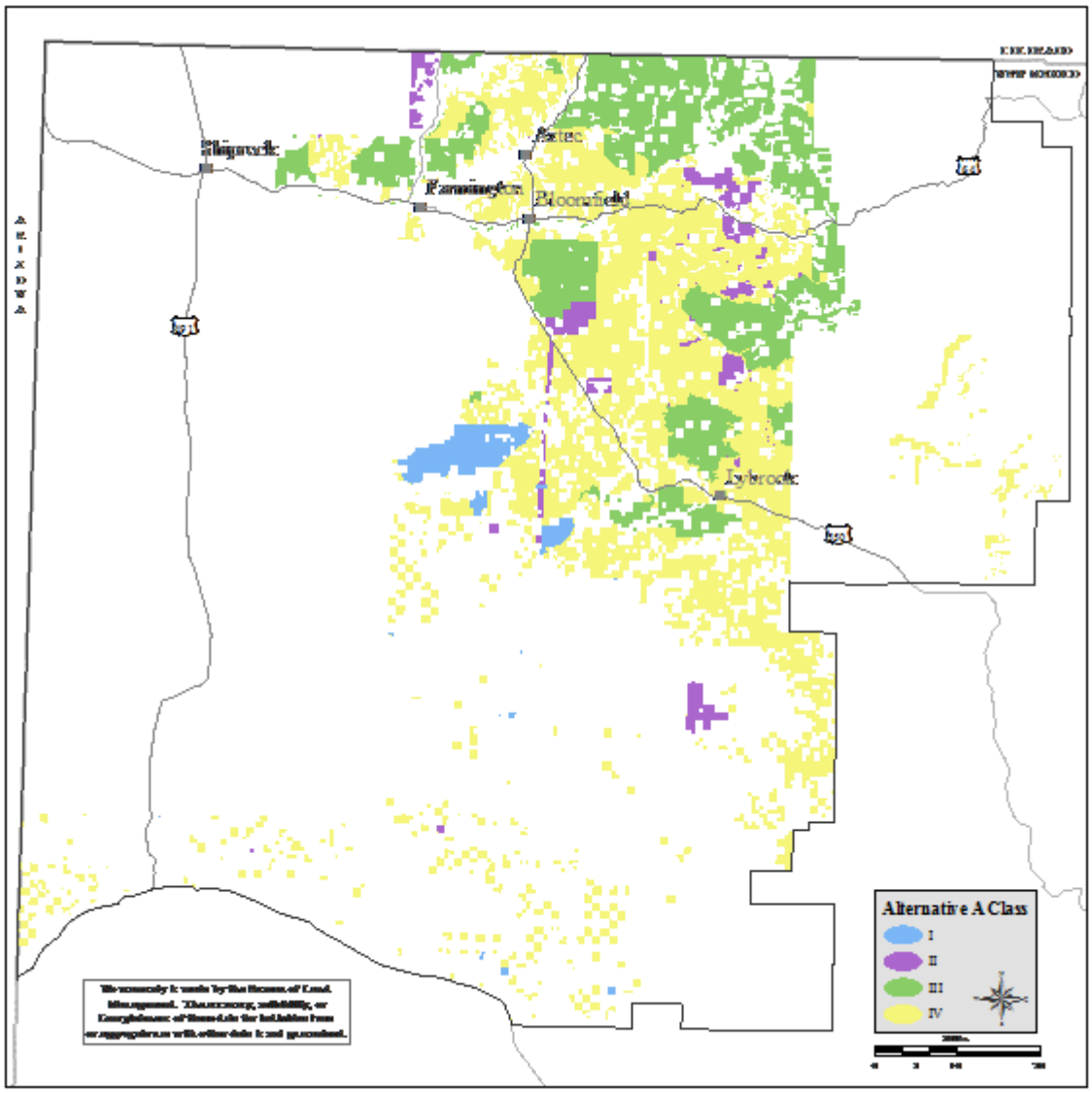
VR-A-MA- 1. Ensure BLM management activities and authorized uses are designed to meet the VRM objectives for the project area.

VR-A-MA- 2. If the Ah-Shi-Sle-Pah WSA is released by Congress from wilderness study, the area would continue to be managed as VRM I unless the release language specifies otherwise.

VR-A-MA- 3. Mitigation measures for visual resources listed below apply primarily to mineral extraction activities and are not all-inclusive. Additional mitigation measures for mineral extraction or other program activities may be developed and implemented as necessary.

- Operators may be required, on a case-by-case basis, to leave a tree screen on one or more sides of a location.
- Above-ground structures are required to be painted in one of five colors designated to blend with the natural color of the landscape.
- Permit holders are required to coordinate with the Authorized Officer on the design and color of power poles and transmission lines to achieve minimal practicable visual impacts.
- Permit holders may be required to reconstruct rock rims as near as possible to the original (RMP, 2-20)

Figure 2. VRM Classes in Alternative A (Preferred Alternative)



2.5. Alternative B

2.5.1. Goal

VR-B-G- 1. Maintain visual resource characteristics and values of public lands according to VRM Classes.

2.5.2. Allocations

VR-B-A- 1. Areas to be managed as VRM Class I (51,000 acres) would include:

- Ah-Shi-Sle-Pah WSA
- Andrew's Ranch ACEC
- Bee Burrow ACEC
- Bis Sa'ani ACEC
- Bisti/De-Na-Zin Wilderness
- Casamero Community ACEC
- Fossil Forest RNA
- Halfway House ACEC
- Indian Creek ACEC
- Kin Nizhoni ACEC
- Morris 41 ACEC
- Pierre's Site ACEC
- Toh-La-Kai ACEC
- Twin Angels ACEC
- Upper Kin Klizhin ACEC

VR-B-A- 2. Areas to be managed as VRM Class II (319,000 acres) would include:

- Adams Canyon ACEC
- Ah-shi-sle-pah Road ACEC
- Alien Run Mountain Bike Trails
- Angel Peak ACEC
- Angel Peak Scenic Area
- Ashii Naa'a (Salt Point) ACEC
- Bald Eagle ACEC
- Beechatuga Tongue Geological Formation
- Bi Yaazh ACEC
- Blanco Mesa ACEC
- Blanco Star Panel ACEC
- Cagle's Site ACEC
- Canyon View Ruin ACEC
- Carracas Mesa Recreation / Wildlife Area
- Cedar Hill ACEC
- Cereza Canyon Wildlife Area
- Chacra Mesa Complex ACEC
- Cho'li'I (Gobernador Knob) ACEC
- Christmas Tree Ruin ACEC
- Church Rock Outlier ACEC
- Crow Canyon ACEC
- Crow Mesa Wildlife Area
- Crownpoint Steps and Herrudura ACEC
- Deer House ACEC
- Delgadita / Pueblo Canyons ACEC
- Devil's Spring Mesa ACEC
- Dogie Canyon School ACEC
- Dzil'na'oodlii (Huerfano Mesa) ACEC
- East Side Rincon ACEC
- Encierro Canyon ACEC
- Encinada Mesa - Carrizo Canyon ACEC
- Ensenada Mesa Wildlife Area
- Farmer's Arroyo ACEC
- Four Ye'i ACEC
- Frances Mesa ACEC
- Gonzalez Canyon - Senon S. Vigil Homestead ACEC
- Gonzales Mesa Wildlife Area
- Gould Pass Camp ACEC
- Haynes Trading Post ACEC
- The Hogback ACEC
- Holmes Group ACEC
- Hummingbird ACEC
- Kahina Mask ACEC
- Kin Yazhi (Little House) ACEC
- Kiva ACEC
- La Jara ACEC
- Laguna Seca Mesa Wildlife Area
- Largo Canyon Star Ceiling ACEC
- Margarita Martinez Homestead ACEC
- Martin Apodaca Homestead ACEC
- Martinez Canyon ACEC
- Mexican Spotted Owl ACEC
- Middle Mesa Wildlife Area
- Moss Trail ACEC
- Munoz Canyon ACEC
- Negro Canyon SDA
- North Road ACEC
- Pinon Mesa Recreation Area
- Pointed Butte ACEC
- Pregnant Basketmaker ACEC
- Pretty Woman ACEC
- Prieta Mesa ACEC
- Rattlesnake Canyon Wildlife Area
- Reese Canyon RNA
- Rincon Largo District ACEC
- Rincon Rock Shelter ACEC
- Rock House - Nestor Martin Homestead ACEC

- San Rafael Canyon ACEC
- Santos Peak ACEC
- Shield Bearer ACEC
- Simon Canyon ACEC
- Simon Ruin ACEC
- Star Spring - Jesus Canyon ACEC
- Star Rock ACEC
- Superior Mesa ACEC
- Tapacito and Split Rock ACEC
- Thomas Canyon Recreation / Wildlife Area
- Truby's Tower ACE

VR-B-A- 3. The remainder of the area would be managed as VRM Class III (1,079,000 acres). Specifically, the following areas would be managed as VRM Class III:

- Betonnie Tsosie Fossil Area
- Bohanon Canyon Fossil Complex
- Carson Fossil Pocket
- Dunes Vehicle Recreation Area
- East La Plata Wildlife Area
- Ephemeral Wash Riparian Area (100 yr)
- Glade Run Recreation Area
- Gobernador and Cerza Canyon Fossil Area
- Head Canyon Motocross Track
- Kutz Canyon Fossil Area
- Lybrook Fossil Area
- Navajo Lake Horse Trails
- Pinon Mesa Fossil Area
- River Tracts ACEC
- Rock Garden Recreation Area
- Rosa Mesa Wildlife Area

VR-B-A- 4. No areas would be managed as VRM Class IV.

See Figure 3 for the locations of areas allocated to each VRM Class.

2.5.3. Management Actions

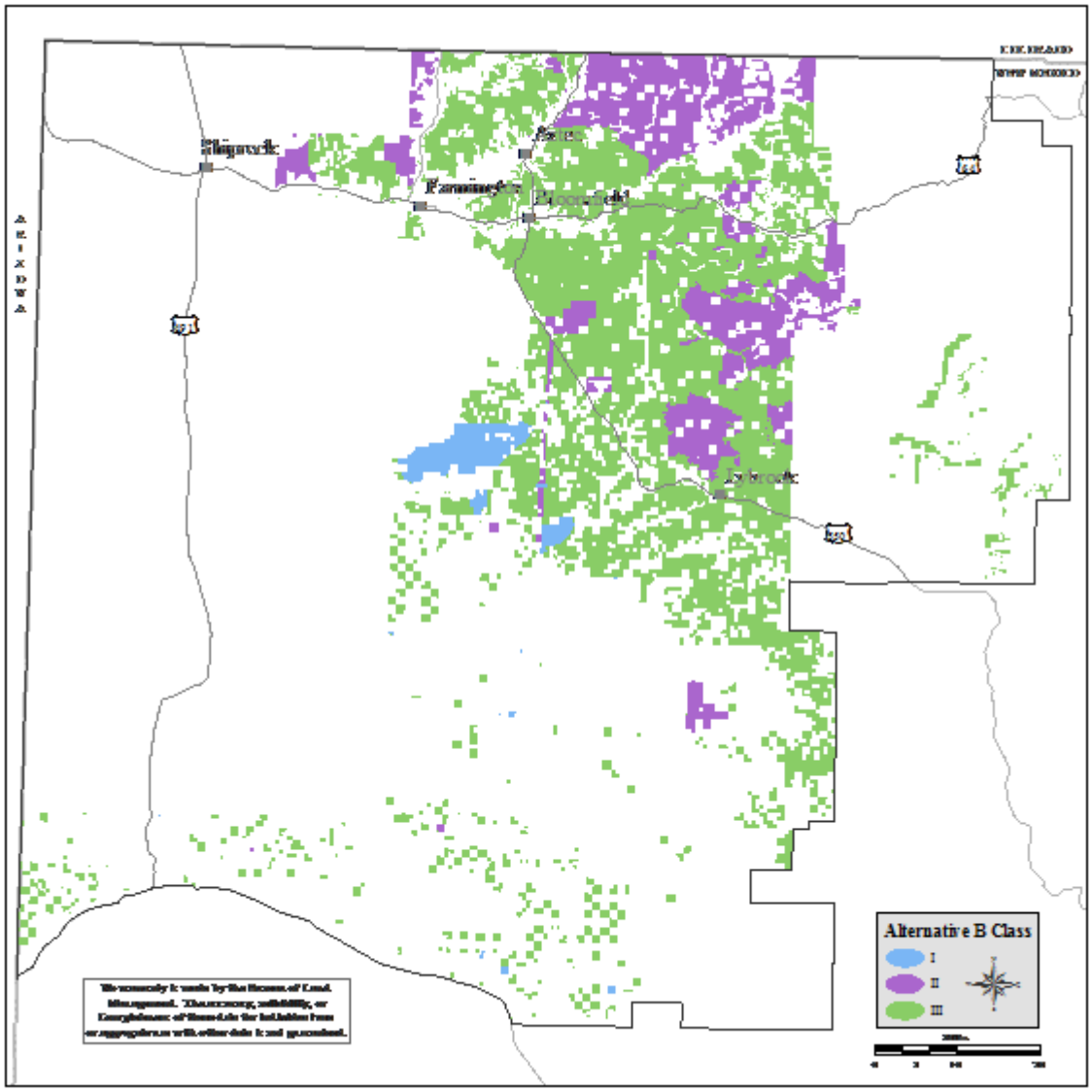
VR-B-MA- 1. Ensure BLM management activities and authorized uses are designed to meet the VRM objectives for the project area.

VR-B-MA- 2. If the Ah-Shi-Sle-Pah WSA is released by Congress from wilderness study, the area would continue to be managed as VRM I unless the release language specifies otherwise.

VR-B-MA- 3. Mitigation measures for visual resources listed below apply primarily to mineral extraction activities and are not all-inclusive. Additional mitigation measures for mineral extraction or other program activities may be developed and implemented as necessary.

- Operators may be required, on a case-by-case basis, to leave a tree screen on one or more sides of a location.
- Above-ground structures are required to be painted in one of five colors designated to blend with the natural color of the landscape.
- Permit holders are required to coordinate with the Authorized Officer on the design and color of power poles and transmission lines to achieve minimal practicable visual impacts.
- Permit holders may be required to reconstruct rock rims as near as possible to the original (RMP, 2-20)

Figure 3. VRM Classes in Alternative B



2.6. Alternative C

2.6.1. Goal

VR-C-G- 1. Maintain visual resource characteristics and values of public lands according to VRM Classes.

2.6.2. Allocations

VR-C-A- 1. Areas to be managed as VRM Class I (48,000 acres) would include:

VR-C-A- 2. Areas to be managed as VRM Class II (3,000 acres) would include:

- Ah-Shi-Sle-Pah WSA
- Andrew's Ranch ACEC
- Bee Burrow ACEC
- Bis Sa'ani ACEC
- Bisti/De-Na-Zin Wilderness
- Casamero Community ACEC
- Fossil Forest RNA
- Halfway House ACEC
- Indian Creek ACEC
- Kin Nizhoni ACEC
- Morris 41 ACEC
- Pierre's Site ACEC
- Toh-La-Kai ACEC
- Twin Angels ACEC
- Upper Kin Klizhin ACEC

VR-C-A- 3. Areas to be managed as VRM Class III (272,000 acres) would include:

- Adams Canyon ACEC
- Ah-shi-sle-pah Road ACEC
- Alien Run Mountain Bike Trails
- Angel Peak ACEC
- Angel Peak Scenic Area
- Ashii Naa'a (Salt Point) ACEC
- Bald Eagle ACEC
- Beechatuga Tongue Geological Formation
- Bi Yaazh ACEC
- Blanco Mesa ACEC
- Blanco Star Panel ACEC
- Cagle's Site ACEC
- Canyon View Ruin ACEC
- Carracas Mesa Recreation / Wildlife Area
- Cedar Hill ACEC
- Chacra Mesa Complex ACEC
- Cho'li'I (Gobernador Knob) ACEC
- Christmas Tree Ruin ACEC
- Church Rock Outlier ACEC
- Crow Canyon ACEC
- Crow Mesa Wildlife Area
- Crownpoint Steps and Herrudura ACEC
- Deer House ACEC
- Delgadita / Pueblo Canyons ACEC
- Devil's Spring Mesa ACEC
- Dogie Canyon School ACEC
- Dzil'na'oodlii (Huerfano Mesa) ACEC
- East Side Rincon ACEC
- Encierro Canyon ACEC
- Encinada Mesa - Carrizo Canyon ACEC
- Ensenada Mesa Wildlife Area
- Farmer's Arroyo ACEC
- Four Ye'i ACEC
- Frances Mesa ACEC
- Gonzalez Canyon - Senon S. Vigil Homestead ACEC
- Gonzales Mesa Wildlife Area
- Gould Pass Camp ACEC
- Haynes Trading Post ACEC
- Holmes Group ACEC
- Hummingbird ACEC
- Kachina Mask ACEC
- Kin Yazhi (Little House) ACEC
- Kiva ACEC
- La Jara ACEC
- Laguna Seca Mesa Wildlife Area
- Largo Canyon Star Ceiling ACEC
- Margarita Martinez Homestead ACEC
- Martin Apodaca Homestead ACEC
- Martinez Canyon ACEC
- Mexican Spotted Owl ACEC
- Moss Trail ACEC
- Munoz Canyon ACEC
- Navajo Lake Horse Trails
- Negro Canyon SDA
- North Road ACEC
- Pinon Mesa Recreation Area
- Pointed Butte ACEC
- Pregnant Basketmaker ACEC
- Pretty Woman ACEC
- Prieta Mesa ACEC
- Rattlesnake Canyon Wildlife Area
- Reese Canyon RNA
- Rincon Largo District ACEC

- Rincon Rock Shelter ACEC
- Rock House - Nestor Martin Homestead ACEC
- San Rafael Canyon ACEC
- Santos Peak ACEC
- Shield Bearer ACEC
- Simon Canyon ACEC
- Simon Ruin ACEC
- Star Rock ACEC
- Star Spring - Jesus Canyon ACEC
- Superior Mesa ACEC
- Tapacito and Split Rock ACEC
- Thomas Canyon Recreation / Wildlife Area
- Truby's Tower ACEC

VR-C-A- 4. The remainder of the area would be managed as VRM Class IV (1,126,000 acres). Specifically, the following areas would be managed as VRM Class IV:

- Betonnie Tsosie Fossil Area
- Bohanon Canyon Fossil Complex
- Carson Fossil Pocket
- Cereza Canyon Wildlife Area
- Dunes Vehicle Recreation Area
- East La Plata Wildlife Area
- Ephemeral Wash Riparian Area
- Glade Run Recreation Area
- Gobernador and Cerza Canyon Fossil Area
- Head Canyon Motocross Track
- The Hogback ACEC
- Kutz Canyon Fossil Area
- Lybrook Fossil Area
- Middle Mesa Wildlife Area
- Pinon Mesa Fossil Area
- River Tracts ACEC
- Rock Garden Recreation Area
- Rosa Mesa Wildlife Area

See Figure 4 for the locations of areas allocated to each VRM Class.

2.6.3. Management Actions

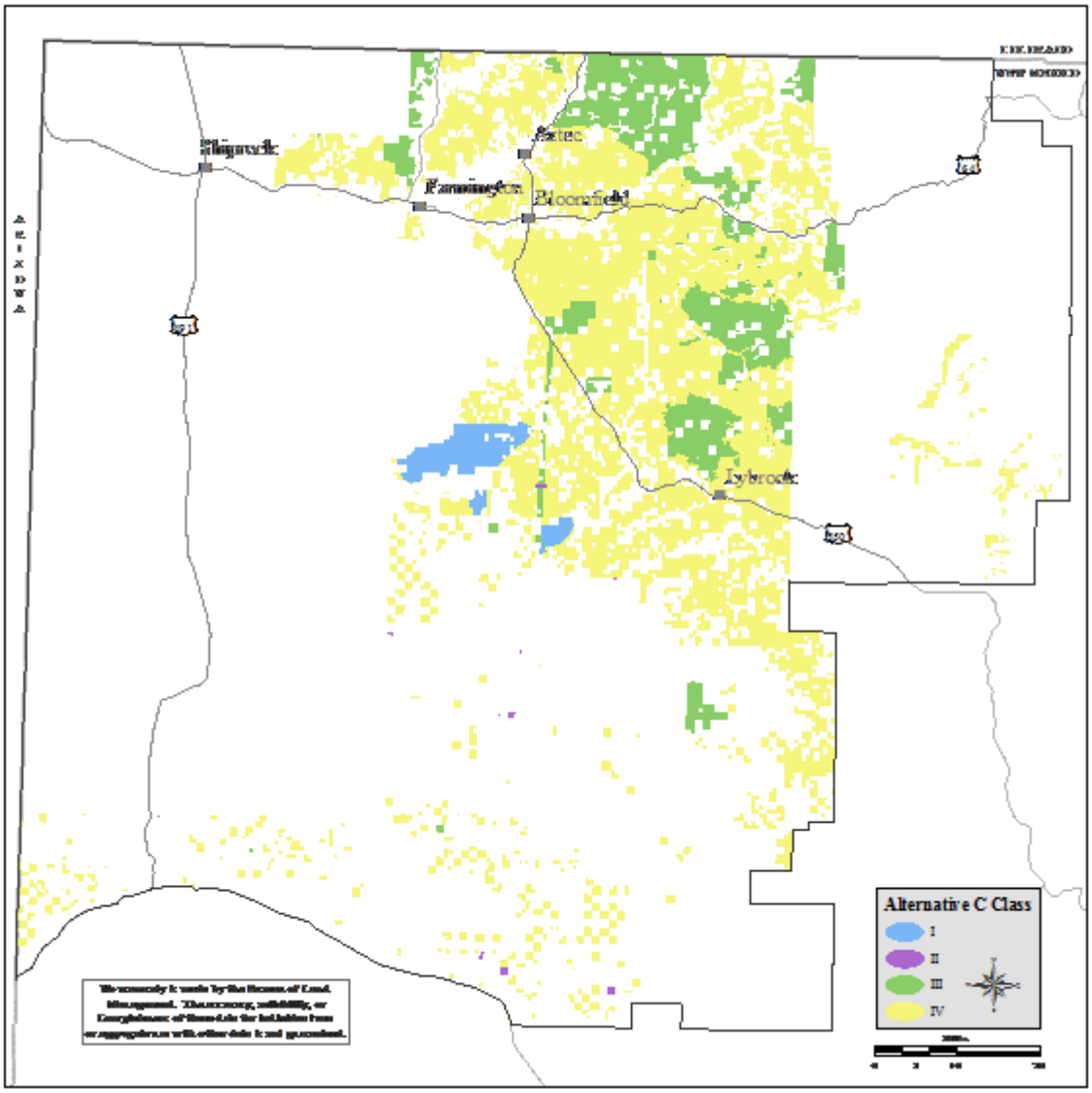
VR-C-MA- 1. Ensure BLM management activities and authorized uses are designed to meet the VRM objectives for the project area.

VR-C-MA- 2. If the Ah-Shi-Sle-Pah WSA is released by Congress from wilderness study, the area would continue to be managed as VRM I unless the release language specifies otherwise.

VR-C-MA- 3. Mitigation measures for visual resources listed below apply primarily to mineral extraction activities and are not all-inclusive. Additional mitigation measures for mineral extraction or other program activities may be developed and implemented as necessary.

- Operators may be required, on a case-by-case basis, to leave a tree screen on one or more sides of a location.
- Above-ground structures are required to be painted in one of five colors designated to blend with the natural color of the landscape.
- Permit holders are required to coordinate with the Authorized Officer on the design and color of power poles and transmission lines to achieve minimal practicable visual impacts.
- Permit holders may be required to reconstruct rock rims as near as possible to the original (RMP, 2-20)

Figure 4. VRM Classes in Alternative C



3. AFFECTED ENVIRONMENT

3.1. Visual Resources

The landscape in the San Juan Basin is diverse, exhibiting many distinctive features and landforms found in arid regions where water and wind erosion have sculpted the land. The San Juan Basin is an area of plateaus and broad valleys. Distinctive features include steep and colorful escarpments, broad vistas, rugged canyons, and pastel-colored badlands where it is dissected into plateaus and pinnacles. Sagebrush and grassland expanses are prominent in the central and southern portion of the FFO area. Piñon-juniper woodlands, rivers, and manmade structures such as reservoirs, roads, and oil and gas wells dominate the northern portion. Sightseeing is popular in the region where scenic vistas are frequent along highways, high places, and riverfronts (BLM, 2003a).

BLM has a responsibility to ensure scenic values of the public lands are considered before allowing uses that may have negative visual impacts. To address the importance of scenic values, BLM designed the visual resource management (VRM) system to help identify visual values and minimize visual impacts to the landscape character of public lands. In order to fulfill these requirements, visual resource inventory (VRI) of the planning area was completed in March 2009 (Otak, 2009).

The visual resource inventory process has three steps, a scenic quality rating, a sensitivity rating, and a distance zone analysis. Scenic quality is a measure of the visual appeal of a tract of land. In the visual resource inventory process, public lands are given an A, B, or C rating based on the apparent scenic quality, which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modification. Areas with the most visual appeal are rated A, while areas with the least visual appeal are rated C; areas with intermediate appeal are rated B. In the planning area, areas rated as A typically contained water or dramatic changes in topography due to unique geologic formations. Areas rated as B typically contained slight changes of topography and some variation in vegetation species. Areas rated as C typically contained no change in topography and very few vegetation species. During the visual resource inventory, scenic quality rating A was given to 56,000 acres, scenic quality rating B was given to 1,559,000 acres, and scenic quality rating C was given to 2,450,000 acres (Figure 5). Due to the way a VRI is conducted, these acres include some non-BLM managed lands.

Sensitivity levels are a measure of the public concern for scenic quality. During the sensitivity rating, public lands are assigned high, medium, or low sensitivity by analyzing six indicators of public concern: type of user, amount of use, public interest, adjacent land uses, special areas, and other factors. During the VRI, a high sensitivity rating was given to 267,000 acres, a medium sensitivity rating was given to 1,455,000 acres, and a low sensitivity rating was given to 1,727,000 acres in the planning area (Figure 6). Again, these acres include some non-BLM managed lands.

The distance zone analysis subdivides landscapes into three distance zones based on relative visibility from travel routes or from key observation points. Lands are assigned to one of the following distance zones:

- Foreground/Middleground: areas seen from highways, river, or other viewing locations which are less than 3 to 5 miles away
- Background: Areas beyond foreground/middleground but less than 15 miles away.
- Seldom Seen: Areas that are not seen as foreground/middleground or background (i.e., hidden from view.

Figure 5. Scenic Quality Rating for the Farmington Field Office

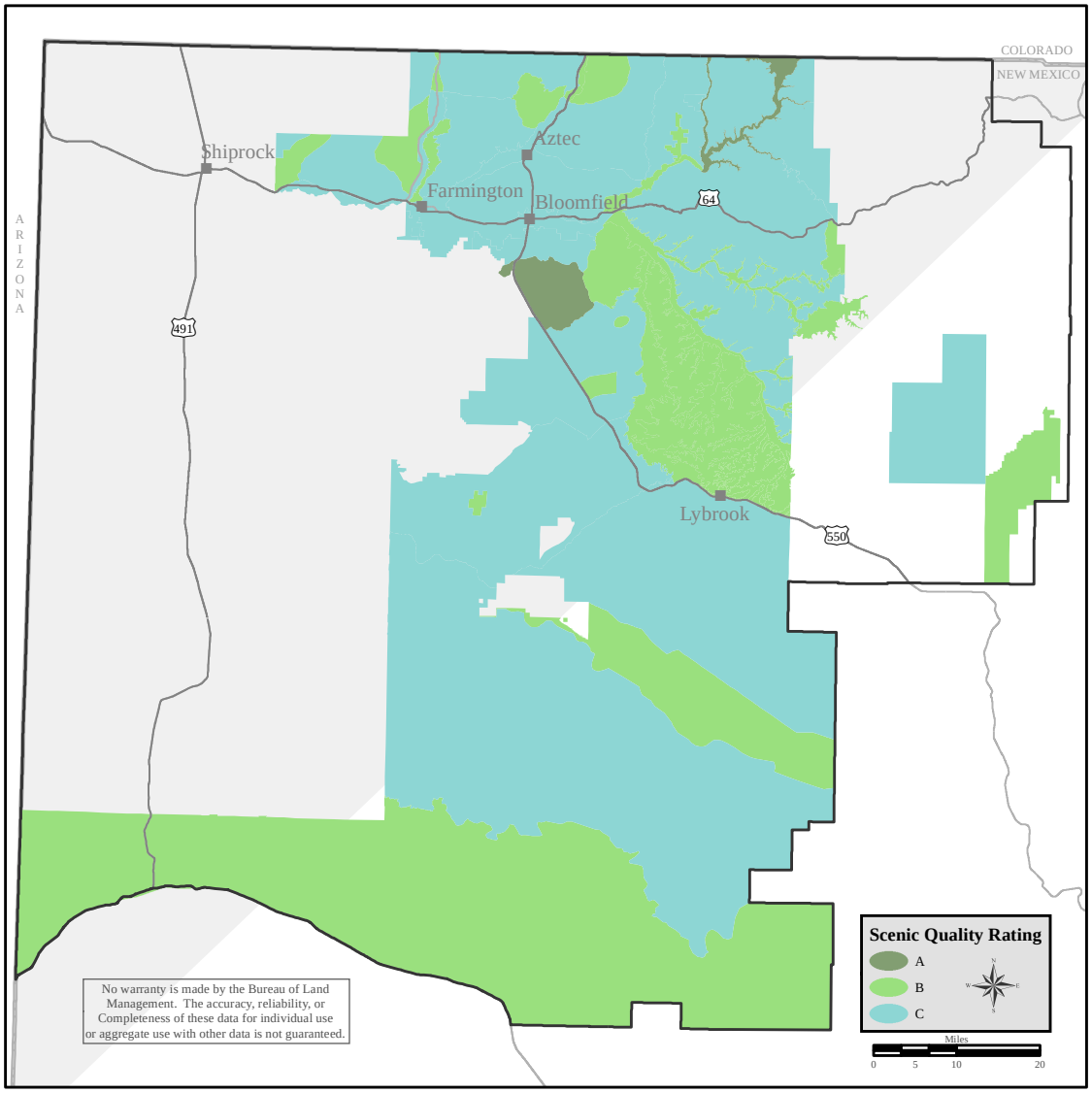
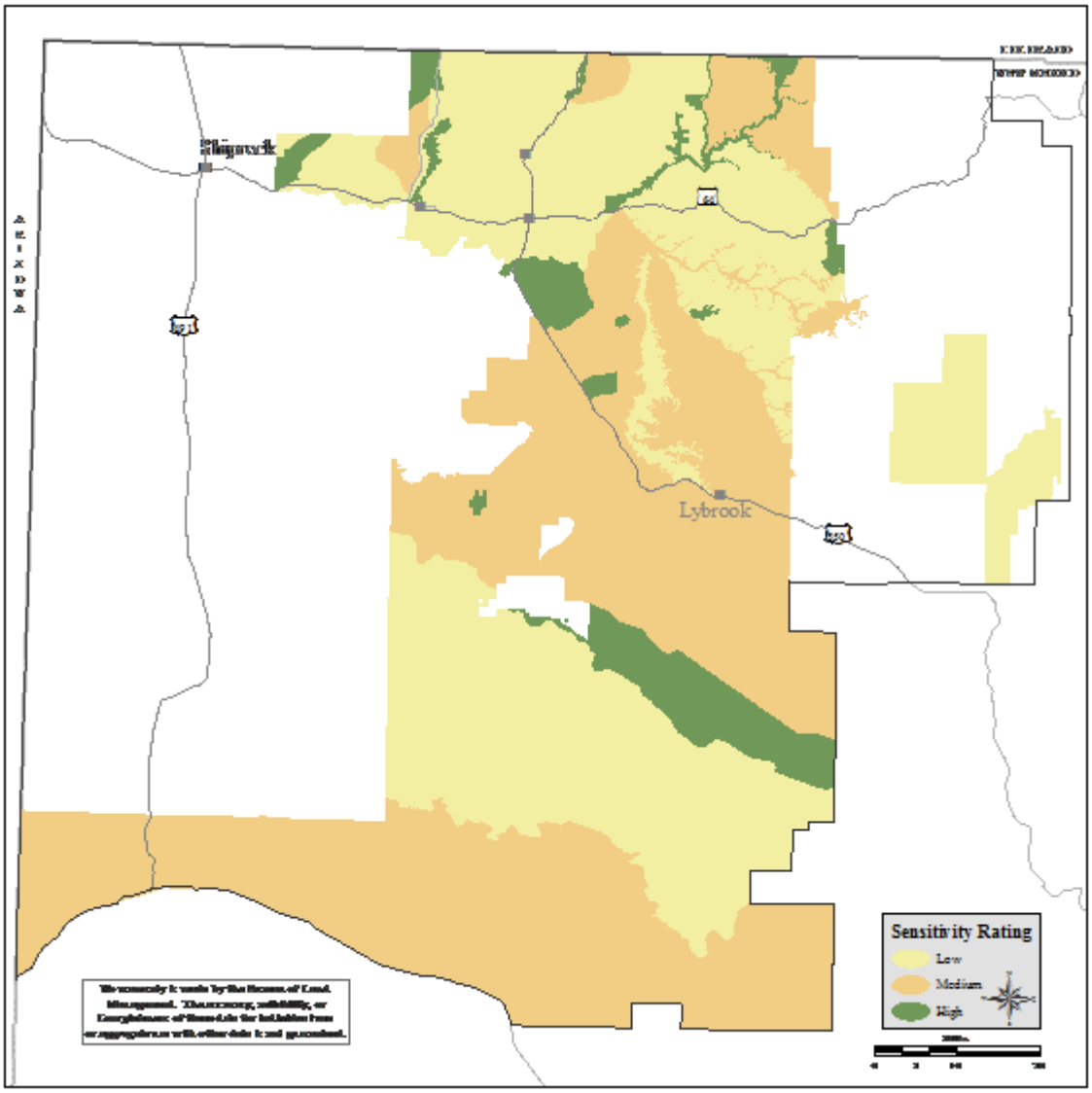


Figure 6. Visual Sensitivity Rating in the Farmington Field Office

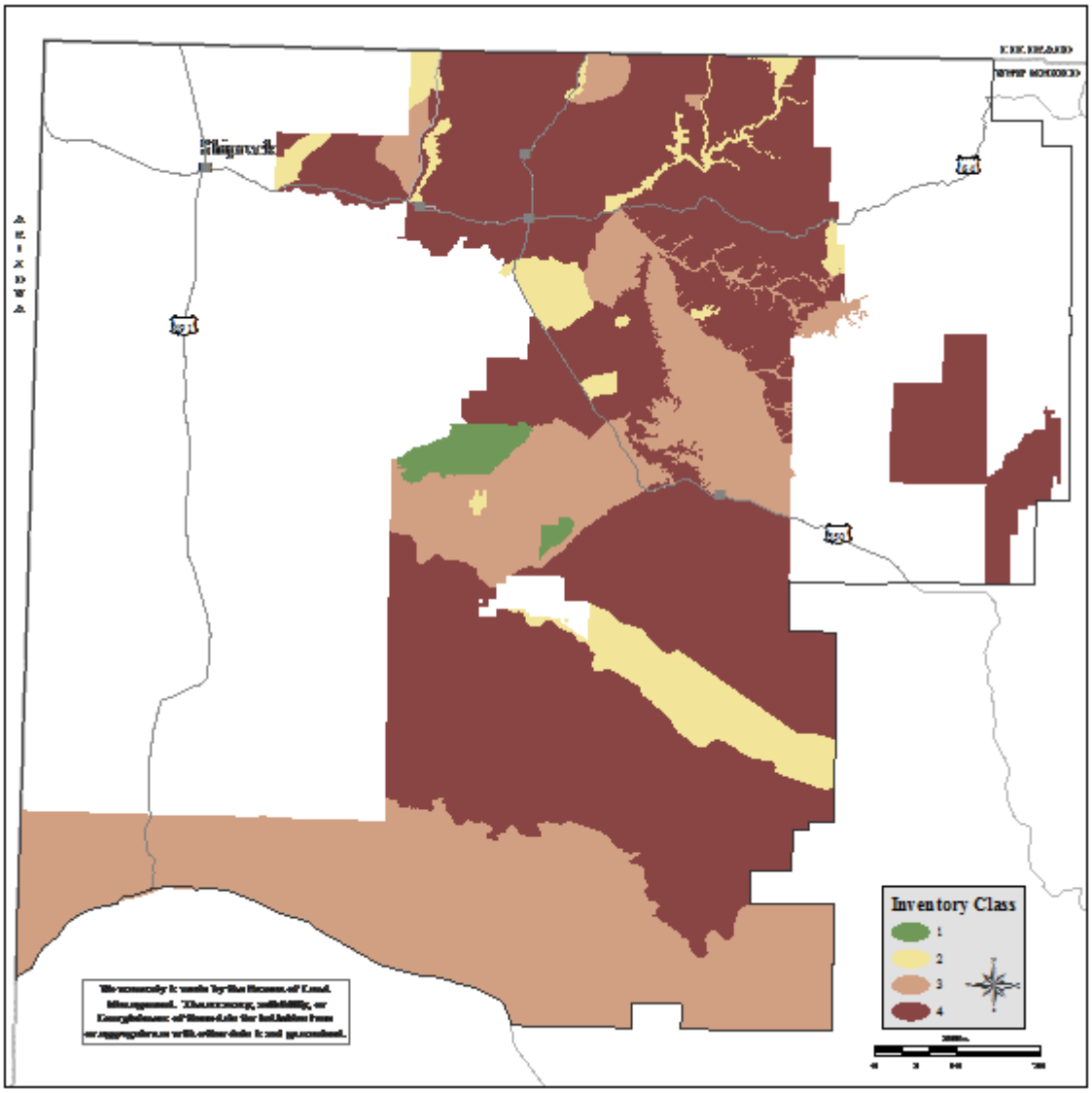


The FFO landscape is covered by an exceptionally dense road network, particularly in the northern half. The road network was constructed over approximately the last 50 years to facilitate oil and gas development of the San Juan Basin. The road density is such that few areas in the landscape are seen at distances exceeding one mile. The southern half of the FFO has a less-dense network of roads. However, it is a vast, open landscape where views of the surrounding lands from the existing road network are nearly unlimited. Most of the landscape can be clearly seen from existing roads at distances up to 5 or 10 miles. Because of the dense road network, there is no area that would fall into the background zone.

The result of the inventory process is the assignment of VRI Classes. VRI Class I is assigned to areas where a management decision has been made previously to maintain a natural landscape. This includes areas such as Wilderness Areas, Wilderness Study Areas, and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape. Classes II, III, and IV are assigned based on a combination of scenic quality, sensitivity level, and distance zones by combining overlays for these factors generated through the inventory process.

After overlaying the scenic quality, sensitivity, and distance zone maps and applying the criteria for assigning VRI Classes, 45,000 BLM-managed acres were identified as VRI Class I, 124,000 acres as VRI Class II, 404,000 acres as VRI Class III, and 897,000 acres as VRI Class IV. Figure 7 displays the results of the VRI. Large areas that did not contain any intermingled BLM-managed lands, including significant portions of the Navajo Reservation, Jicarilla Apache Reservation, Carson National Forest, and Chaco National Historical Park were not rated.

Figure 7. VRI Classes for the Farmington Field Office



3.2. Cultural Resources

The FFO is located within the archaeologically rich San Juan Basin of northwestern New Mexico. In general, the prehistory of the San Juan Basin can be divided into five major periods: PaleoIndian (ca. 10,000 B.C. to 5,500 B.C.), Archaic (ca. 5,500 B.C. to A.D. 400), Basketmaker II-III and Pueblo I-IV periods (A.D. 1 to 1,540), and the Historic (A.D. 1,540 to present), which includes Native American as well as later Hispanic and Euro-American settlers. There are no less than 19 distinctive categories of sites based on temporal and cultural affiliations. Numerically speaking the Basketmaker/Pueblo and Historic are the most prolific followed by the Archaic and PaleoIndian. Detailed descriptions of these various periods and select phases within each period is provided in the *Farmington Proposed Resource Management Plan and Final Environmental Impact Statement* (BLM 2003a) and will not be reiterated here. Additional information is also included in an associated documented, *Cultural Resources Technical Report* (SAIC 2002).

As of September 2012, over 13,000 cultural resource sites were recorded on BLM-managed lands within the FFO. Over 45,000 cultural sites have been recorded on all lands within the FFO. Most of these sites were recorded in response to some proposed action, such as energy development or the development of community infrastructure. Seventy-five sites on BLM-managed lands are listed on the National Register of Historic Places. One is a congressionally designated National Historic Trail, twelve are congressionally designated Chaco Protection Sites, and five are designated United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites. Under 36 CFR 60.4, National Register criteria for evaluation include the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. Integrity of setting means that the quality of the surroundings of a site affect its significance.

The kinds of cultural sites found within the FFO, both prehistoric and historic, are varied and include simple scatters of artifacts, residential sites often containing multiple structures/domiciles (e.g. pueblos, pithouses, hogans, homesteads), limited or special use sites such as isolated roasting pits or water control features, trails/roads, religious architecture (e.g. kivas, sweat lodges), pictographs and petroglyphs (a.k.a. rock art), defensive sites, and Traditional Cultural Properties (TCPs).

TCPs can be defined generally as, “one (a property) that is eligible for the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community" (National Register Bulletin 38; Parker and King 1998:1).

Native American “communities” are the most likely to identify TCPs, although TCPs are not restricted to those associations. As an example, the “Largo Cemetery” is a place that several Hispanic families in the area maintain and they have collected historical information about it and several historic homesteads in Largo Canyon. These old ranches and the cemetery may qualify as a TCP.

Some TCPs are well known, while others may only be known to a small group of traditional practitioners, or otherwise only vaguely known. Prehistoric and historic Native American archaeological sites are quite often considered TCPs by some tribes or pueblos. For example, the Zuni Tribe views all prehistoric pueblo sites as sacred and significant to the Zuni people. Many of the larger prehistoric Chaco related sites in the San Juan Basin have Navajo names and are linked in some cases to origin stories and ceremonies, and are recognized as part of a local community’s landscape.

The 2003 Farmington RMP designated Areas of Critical Environmental Concern (ACECs) for areas containing various values necessitating special management attention. Some of these ACECs were designated specifically to ensure the long-term protection of important cultural resources for future generations of researchers, for public enjoyment, and for preservation of Native American sacred sites. Table 4 identifies these Cultural ACECs.

Table 4. Cultural ACECS in the FFO

Cultural ACECs		
Adams Canyon	East Side Rincon	Moss Trail
Ah-shi-sle-pah Road	Encinada Mesa – Carrizo Canyon	Munoz Canyon
Albert Mesa	Encinada Mesa	North Road
Andrew's Ranch	Farmer's Arroyo	Pierre's Site
Ashii Naa-a (Salt Point)	Four Ye'i	Pointed Butte
Bee Burrow	Frances Mesa	Pork Chop Pass
Bi Yaazh	Gonzales Canyon – Senon S. Vigil Homestead	Pregnant Basketmaker
Bis Sa'ani	Gould Pass Camp	Pretty Woman
Blanco Mesa	Greenlee Ruin Chaco Culture Archaeological Protection Site	Prieta Mesa
Blanco Star panel	Halfway House	Rincon Largo District
Cagle's Site	Haynes Trading Post	Rincon Rock Shelter
Canyon View Ruin	Holmes Group	Rock House – Nestor Martin Homestead
Casa Del Rio Chaco Archaeological Protection Site	Hummingbird	San Rafael Canyon
Casamero Community	Hummingbird Canyon	Santos Peak
Cedar Hill	Indian Creek	Shield Bearer
Chacra Mesa Complex	Jacques Chacoan Community	Simon Ruin
Cho'li'l (Gobernador Knob)	Kachina Mask	Star Rock
Christmas Tree Ruin	Kin Nizhoni	Star Spring – Jesus Canyon
Church Rock Outlier	Kin Yazhi (Little House)	String House
Cottonwood Divide	Kiva	Superior Mesa
Crow Canyon	La Jara	Tapacito and Split Rock
Crownpoint Steps and Herrudrua	Lake Valley Chaco Cultural Archaeological Protection Site	Toh-La-Kai
Deer House	Largo Canyon Star Ceiling	Truby's Tower
Delgadita/Pueblo Canyons	Margarita Martinez Homestead	Twin Angels
Devil's Spring Mesa	Martin Apodaca Homestead	Upper Kin Klizhin
Dogie Canyon School	Martinez Canyon	
Dzil'na'oodli (Huerfano Mesa)	Morris 41	

3.3. Leasable Minerals

Hydrocarbon production in the planning area consists primarily of natural gas production and a small amount of oil/condensate production. The natural gas production rate from the entire San Juan Basin is approximately 2.26 billion cubic feet per day (Bcfd), as of January, 2011. The Fruitland Coal, Pictured Cliffs, Mesaverde, and Dakota formations are the primary natural gas-producing formations in the San Juan Basin, although the Fruitland Sand and Chacra also produce notable amounts of natural gas. These formations range in age from 60 to 100 million years before the present time (Tertiary to Cretaceous Periods).

Conventional (non-coal-bed methane) hydrocarbon development began during the 1940s. Natural gas production significantly increased as a result of CBM production from the Fruitland Coal in the late 1980s. Approximately 46 percent of the natural gas produced from wells in the San Juan Basin originates from CBM wells. Oil and condensate are produced primarily from the Mancos Shale/Gallup formations; however, condensate is also produced in association with natural gas from the Mesaverde and Dakota. Of the 1.156 trillion standard cubic feet (Tscf) of gas produced in New Mexico in 2011, almost 825 billion cubic feet, or 71 percent, was from the planning area. The planning area is much less important for its oil production, producing only 3.6 percent of the state's oil in 2011. The state produced 64.4 million barrels (bbls) of oil in 2011, of which 2.3 million bbls were from the planning area. There is currently a Mancos/Gallup oil and gas development opportunity emerging in the San Juan Basin. Although current

market prices for gas have reduced operators' interest in the gas development, there is considerable interest by operators in oil development in the southern portion of the San Juan Basin. If the oil play becomes viable, the result could significantly increase the annual oil production in the basin.

There are approximately 20,500 active wells in the New Mexico portion of the San Juan Basin, excluding tribal wells. As of 2011, these active wells produced from the six gas-bearing formations listed above. The life of a well in the planning area can extend as long as 50 years. Declining reservoir pressures necessitate the use of compressors in order to produce the gas. The planning area currently contains compressor stations with a capacity of over 168,000 horsepower (HP). The amount of oil and gas activity has generated a significant backlog of unreclaimed well pads waiting for field review and approval by the FFO. These locations cannot be considered "reclaimed" until that approval is granted.

The Pictured Cliffs produces natural gas from wells spaced at 160 acres per well. Approximately 5,800 wells have produced from the Pictured Cliffs to date. Currently, approximately 15 percent of wells completed in this formation are dual completions or are commingled, usually with the Mesaverde or Dakota. The Mesaverde Group produces natural gas from wells spaced at 320 acres per well, with optional infill development allowed on an 80- acre per well basis. Approximately 6,100 wells in total have been completed to the Mesaverde in the San Juan Basin. Approximately 25 percent of recent Mesaverde completions are commingled or dual completions. The Dakota produces natural gas from wells spaced at 80 acres per well. Approximately 7,300 wells in total have produced from the Dakota. The reasonably foreseeable development (RFD) predicts 6,800 additional Dakota 80-acre completions within the 20-year period of analysis. Production from the Dakota can be commingled with production from the Mesaverde. The ability to commingle gas produced from different formations and to complete more than one formation within the same wellbore (dual completion) allows operators to maximize production from a single well pad. Other formations in the San Juan Basin that produce or have the potential to produce natural gas include Tertiary sands, the Farmington, the Fruitland Sand, the Chacra, the Lewis Shale, the Mancos Shale/Gallup Sandstone, the Entrada, and Pennsylvanian deposits. Historical data gathered by the BLM indicates that approximately 46 percent of the total numbers of locations in the San Juan Basin are constructed on well pads that already exist. The remaining 54 percent of new locations are drilled on virgin sites (BLM, 2003a).

3.4. Recreation

The climate, natural landscape, archaeological sites and cultural traditions of the FFO provide features and attractions for a wide range of activities. Outstanding conditions for sporting and recreational pursuits are enjoyed by local residents as well as regional and out-of state visitors. With growing visibility of the region, the FFO is experiencing an increase in the numbers of persons who are finding and engaging in recreational activities in the management area. Some public lands contain unique or outstanding recreation values that require special or intensive management to protect the special values and to accommodate public use. In the FFO, a multitude of recreational opportunities exist ranging from the primitive and unconfined in Bisti/De-na-zin Wilderness Area to the motorized challenge of rock-crawling in the Glade Run Recreation Area.

Public lands in the FFO offer the opportunity to enjoy outdoor recreation in three major categories: developed, dispersed, and trail based recreation. There are twelve designated recreation areas (Table 5). Developed recreational opportunities are available at Angel Peak Scenic Area and Simon Canyon ACEC. Facilities support day-use such as picnicking, hiking and fishing as well as overnight and extended stay opportunities. Other recreation areas support maintained trails (e.g. Glade Run Recreation Area, Alien Mountain Bike Trail and Navajo Lake Horse Trail), cross country travel opportunities (e.g. Glade Run Recreation Area, Head Canyon Motocross Area and Dunes Off-Highway Vehicle Area) and dispersed recreation (Negro Canyon Recreation Area, Thomas Canyon Recreation and Wildlife Area, Carracas Mesa Recreation and Wildlife Area).

Table 5. Recreation Areas in the FFO

Recreation Areas	
Alien Run Mountain Bike Trails	Navajo Lake Horse Trails

Angel Peak Scenic Area	Negro Canyon Specially Designated Area
Carracas Mesa Recreation/Wildlife Area	Pinon Mesa Recreation Area
Dunes Vehicle Recreation Area	Rock Garden Recreation Area
Glade Run Recreation Area	Simon Canyon ACEC
Head Canyon Motocross Track	Thomas Canyon Recreation/Wildlife Area

In addition, the FFO contains portions of the Old Spanish National Historic Trail as well as a plethora of cultural sites that are open to public visitation. For primitive backcountry experiences there is the congressionally designated Bisti/De-Na-Zin Wilderness and Ah-Shi-Sle-Pah, a wilderness study area under review for wilderness designation. Both of these areas provide unconfined, non-motorized recreation experiences.

Motorized recreation on public lands includes opportunities for off-highway vehicle (OHV) travel throughout the field office. OHVs include various classes and types of motorcycles, dune buggies, ATVs, UTVs, side-by-sides, and four-wheel drive vehicles. OHV use has increased in popularity as more versatile vehicles have become affordable and available, making access to more remote areas of public lands possible. This has introduced human presence into remote areas and left a mark on the landscape through creation of noise, dusts, smells, visual intrusions and creation of roads and trails through repeated use. In some cases, OHV use is associated with woodcutting, hunting, mineral exploration and development, livestock operations and administrative functions throughout the FFO.

Non-motorized and motorized trails exist in areas where there are scenic vistas or overlooks such as the Navajo Lake Horse Trail which provides views of Navajo Lake Reservoir. In addition to designated trails, there are also unauthorized user created trails. These unauthorized trails have left a mark on landscapes across the FFO through the fragmentation of vegetation and habitat, increased access, dust, noise, and public encounters.

3.5. Land Use Authorizations

A variety of land use authorizations have been authorized in the FFO (Table 6). Oil and gas development in the San Juan Basin has resulted in an extensive network of land use authorizations, including pipelines and access roads. The majority of the FFO is available for land use authorizations; however, authorizations are excluded or restricted in a number of ACECs and SDAs.

Table 6. Land Use Authorizations in the FFO

Type	Number	Acres
R&PP Leases	30	2,500
Communication Sites	130	150
ROWs[1]	17,000	85,000

[1] ROWs include authorizations including, but not limited to, roads, pipelines, transmission lines, telephone lines.

The 2003 Farmington RMP did not designate utility corridors or wind or solar development areas. The FFO has not received much interest for the development of wind or solar projects, likely due to the large number of oil and gas leases in the area.

4. ENVIRONMENTAL CONSEQUENCES

4.1. Analysis Methods

The following analysis assumptions were used in the analysis of the impacts of the alternatives on each of the resources or uses discussed in this chapter:

- In cases where the No Action VRM management Class had numerous designations analysis was conducted with the least restrictive of the classes.
- In cases where special areas had more than one management class under the No Action Alternative, the action alternatives have designated only one class per special area.
- Acreages for this document were determined through BLM - Farmington Field Office GIS data.
- RMP and No Action Alternative acreages will be different (greater) then the Action Alternatives because of better GIS Data and updates to the data in addition to the scope of this document limiting the management and analysis to BLM surface.

In addition, the total number of acres displayed for the No Action Alternative will be greater than the total number of acres displayed for the action alternatives due to the improvements in GIS data since 2003.

4.2. Visual Resources

4.2.1. Analysis Methods

Direct and Indirect Impacts

Visual resources are managed by assigning visual resource management (VRM) classes to geographic areas. The objective for each VRM Class describes how that class should be managed (BLM Handbook H-8410-1):

- VRM Class I areas are managed to preserve the existing character of the landscape. The level of change to the landscape should be very low and must not attract attention.
- VRM Class II areas are managed to retain the existing character of the landscape. The level of change to the landscape should be low and repeat the basic elements of form, line, color, and texture found in the natural features of the landscape.
- VRM Class III areas are managed to partially retain the existing character of the landscape. The level of change to the landscape can be moderate and should repeat the basic elements found in the natural landscape. Management activities may attract attention, but should not dominate the view of the casual observer.
- VRM Class IV areas are managed to provide for activities that require major modification of the landscape. The level of change to the landscape can be high, and management activities may dominate the view and be the major focus of attention. Impacts can still be minimized through location and design by repeating the basic elements found in the natural landscape.

Using this framework, areas managed for VRM Class I retain their VRI Class, no matter what VRI Class that may be. For example, an area inventoried as VRI Class III and managed as VRM Class I remains VRI Class III because the management preserves the existing character. If that same area was managed as VRM Class II, III, or IV, the potential to change the landscape exists, potentially altering the character of the landscape enough that future inventories would result in a reclassification. A management class that improves the visual quality of an area does not exist, although this may happen through management actions that improve vegetation or remove structures.

VRM Classes outline the level of change that could occur within that class. Identifying an area as a specific management class does not guarantee that change will take place. The discussion below identifies the number of acres that may retain or lose visual quality due to management in a specific VRM Class; however, the potential for every acre to lose visual quality due to management in a specific VRM Class is extremely low.

In order to assess the impacts of VRM on visual resources, VRM Classes were compared to Scenic Quality Ratings, Sensitivity Ratings, and VRI Classes using GIS to identify potential impacts to VRI Classes. For example, if an area was rated as A for Scenic Quality, but the proposed management is VRM Class IV, the potential for a decrease in the visual appeal of an area exists. During the visual resource inventory, scenic quality rating A was given to 42,000 acres, scenic quality rating B was given to 426,000 acres, and scenic quality rating C was given to 959,000 acres on BLM-managed lands.

If an area was rated as high for sensitivity, but the proposed management was VRM Class IV, the public could be very concerned about changes to the visual character. During the visual resource inventory, a high sensitivity rating was given to 131,000 acres, a medium sensitivity rating was given to 730,000 acres, and a low sensitivity rating was given to 569,000 acres on BLM-managed lands.

Finally, if an area was inventoried at VRI Class I, but the proposed management is VRM Class IV, the potential for a decrease in the visual quality, and thus VRI Class, exists. The 2009 VRI for the planning area identified 45,000 acres as VRI Class I, 109,000 acres as VRI Class II, 390,000 acres as VRI Class III, and 876,000 acres as VRI Class IV on BLM-managed lands. Although tables display impacts to all VRI Classes, only impacts to VRI Class I and II lands are discussed in the text, as these are the lands with the most visual quality and are most vulnerable to a change in VRI Class.

Cumulative Impacts

A VRI was conducted in the FFO between 1978 and 1980. However, the data is not available in a format that allows for comparison between that VRI and the 2009 VRI. Thus, it is not possible to evaluate how visual resources have changed at the landscape-level due to past actions.

Present and reasonably foreseeable actions for the planning area involve those actions that occur on non-BLM managed or owned lands. The 2009 VRI took into account the visual resources on non-BLM managed and owned lands, with the exception of tribal lands and Chaco Culture National Historic Park Table 9 identifies the scenic quality ratings for lands in the planning area. Table 8 identifies sensitivity ratings for lands in the planning area. Table 9 identifies VRI Classes for lands in the planning area.

Table 7. Scenic Quality Ratings for Lands in the Planning Area in 2009

Land Status	Scenic Quality Rating		
	A	B	C
BLM-Managed Lands	42,000	426,000	959,000
Non-BLM Managed Lands[1]	20,000	1,153,000	1,516,000
Total	**62,000**	**1,579,000**	**2,475,000**

[1] Excluding tribal lands and Chaco Culture National Historic Park.

Table 8. Sensitivity Ratings for Lands in the Planning Area in 2009

Land Status	Sensitivity Rating		
	High	Medium	Low
BLM-Managed Lands	131,000	730,000	569,000
Non-BLM Managed Lands[1]	156,000	740,000	1,177,000
Total	**287,000**	**1,470,000**	**1,746,000**

[1] Excluding tribal lands and Chaco Culture National Historic Park.

Table 9. VRI Classes for Lands in the Planning Area in 2009

Land Status	VRI I	VRI II	VRI III	VRI IV
BLM-Managed Lands	45,000	109,000	390,000	876,000
Non-BLM Managed Lands[1]	7,000	156,000	1,073,000	1,455,000
Total	**52,000**	**265,000**	**1,463,000**	**2,331,000**

[1] Excluding tribal lands and Chaco Culture National Historic Park.

For the analysis of cumulative impacts on visual resources, it was assumed that non-BLM owned lands would be managed by the landowner for use; this management would be similar to VRM Class IV. Tribal lands and Chaco Culture National Historic Park were excluded from the analysis because these lands were not included in the VRI.

4.2.2. Impacts from the No Action Alternative

Direct and Indirect Impacts

Under the No Action Alternative, 14% of lands with a scenic quality rating of A would be in VRM Class II, allowing for a low level of change to the scenic quality; 86% of these areas would be managed in VRM Class II/III/IV or VRM Class III/IV, potentially allowing for a high degree of change to the scenic quality (Table 10).

Table 10. VRM Classes by Scenic Quality Rating in the No Action Alternative (acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	4,000	6,000
VRM Class II	6,000	24,000	38,000
VRM Class II/III	0	10,000	34,000
VRM Class III	0	35,000	68,000
VRM Class II/IV	0	0	41,000
VRM Class II/III/IV	30,000	4,000	13,000
VRM Class III/IV	6,000	329,000	738,000
VRM Class IV	0	21,000	21,000

Under the No Action Alternative, 6% of lands with a high level of public concern for scenic quality would be managed in VRM Class I, resulting in the preservation of the existing visual character of those lands; 22% of these lands would be managed in VRM Class II, allowing a low level of change (Table 11). The remainder of the lands with a high level of public concern for scenic quality (72%) would be managed in a VRM Class that would allow for a moderate to high level of change.

Table 11. VRM Classes by Sensitivity Rating in the No Action Alternative (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	8,000	2,000	1,000
VRM Class II	29,000	28,000	11,000
VRM Class II/III	10,000	27,000	7,000
VRM Class III	3,000	30,000	69,000
VRM Class II/IV	0	26,000	15,000
VRM Class II/III/IV	30,000	5,000	13,000
VRM Class III/IV	41,000	602,000	431,000
VRM Class IV	10,000	10,000	21,000

Under the No Action Alternative, all VRI Class I lands would be managed as VRM Class I, resulting in preservation of the existing visual character of those lands (Table 12). With regard to VRI Class II lands, 2% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 18% would be in VRM Class II, allowing a low level of change; 8% would be in VRM Class II/III, potentially resulting in low to only partially retaining the character of those lands, 24% would be in Class II/III/IV resulting in low to high level of change, 8% would be in VRM Class III potentially resulting in only partially retaining the character of those lands, 31% would be in VRM Class III/IV, potentially resulting in partially retaining up to a high level of change to those acres, less than 1% would be in VRM Class II/IV resulting in potential of low level to high levels of change, and 8% would be in VRM Class IV potentially resulting in a high level of change to those acres.

Table 12. VRM Classes by VRI Classes in the No Action Alternative (acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	3,000	3,000	1,000
VRM Class II	0	23,000	9,000	27,000
VRM Class II/III	0	10,000	0	34,000
VRM Class III	0	10,000	26,000	76,000
VRM Class II/IV	0	0	0	41,000
VRM Class II/III/IV	0	30,000	11,000	13,000
VRM Class III/IV	0	39,000	344,000	682,000
VRM Class IV	0	10,000	10,000	10,000

Cumulative Impacts

Under the No Action Alternative, existing management would not change. There would be no cumulative impacts beyond those analyzed in the 2003 Farmington PRMP/FEIS. On a regional basis, modifications in the landscape will continue as oil and gas resources are developed. Potential for future development on non-federal land will also contribute to visual modification. Within the FFO, standards for mitigating visual impacts are only applied on federal land. It is therefore expected that human modifications will become increasingly noticeable in the landscape (BLM 2003a).

4.2.1. Impacts from Alternative A (Preferred Alternative)

Direct and Indirect Impacts

Under Alternative A, 14% of lands with a scenic quality rating of A would be in VRM Class II, allowing for a low level of change to the scenic quality; 86% of these areas would be managed in VRM Class III or VRM Class IV, potentially allowing for a moderate to high degree of change to the scenic quality (Table 13).

Table 13. VRM Classes by Scenic Quality Rating in Alternative A (Preferred Alternative; acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	4,000	1,000
VRM Class II	6,000	32,000	50,000
VRM Class III	30,000	109,000	299,000
VRM Class IV	6,000	281,000	609,000

Under Alternative A, 2% of lands with a high level of public concern for scenic quality would be managed in VRM Class I, resulting in the preservation of the existing visual character of those lands; 27% of these lands would be managed in VRM Class II, allowing a low level of change (Table 14). The remainder of the lands with a high level of public concern for scenic quality (71%) would be managed in a VRM Class that would allow for a moderate to high level of change.

Table 14. VRM Classes by Sensitivity Rating in Alternative A (Preferred Alternative; acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	3,000	2,000	1,000
VRM Class II	36,000	22,000	30,000
VRM Class III	59,000	171,000	209,000
VRM Class IV	33,000	535,000	329,000

Under Alternative A, all VRI Class I acres would be in VRM Class I, resulting in preservation of the existing visual character of those lands (Table 15). With regard to VRI Class II lands, 2% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 25% would be in VRM Class II, allowing a low level of change; 46% would be in VRM Class III, potentially

resulting in only partially retaining the character of those lands; and 26% would be in VRM Class IV, potentially resulting in a high level of change to those acres.

Table 15. VRM Classes by VRI Classes in Alternative A (Preferred Alternatives; acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	3,000	2,000	1,000
VRM Class II	0	31,000	18,000	35,000
VRM Class III	0	57,000	90,000	299,000
VRM Class IV	0	33,000	294,000	562,000

Cumulative Impacts

Under Alternative A, 23% of lands with a scenic quality rating of A managed as VRM Class IV are managed by BLM (Table 16). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 16. VRM Classes by Scenic Quality Rating for All Inventoried Lands in the Planning Area in Alternative A (Preferred Alternative; acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	4,000	1,000
VRM Class II	6,000	32,000	50,000
VRM Class III	30,000	109,000	299,000
VRM Class IV	26,000	1,434,000	2,125,000

With regard to sensitivity, 17% of lands with a high level of public concern for scenic quality managed as VRM Class IV are managed by BLM (Table 17). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 17. VRM Classes by Sensitivity Rating in Alternative A (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	3,000	2,000	1,000
VRM Class II	36,000	22,000	30,000
VRM Class III	59,000	171,000	209,000
VRM Class IV	189,000	535,000	329,000

The analysis of cumulative impacts for Alternative A identifies an increase in the number of acres in VRM Class IV (Table 18). For VRI Class I lands, none of the lands managed in VRM Class IV are managed by the BLM. For VRI Class II lands, 18% of those managed in VRM Class IV are managed by the BLM; more than 80% of these lands are not managed by BLM. With regard to VRM Classes, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 18. VRM Classes by VRI Classes for All Inventoried Lands in the Planning Area in Alternative A (Preferred Alternatives; acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	3,000	2,000	1,000
VRM Class II	0	31,000	18,000	35,000
VRM Class III	0	57,000	90,000	299,000
VRM Class IV	7,000	189,000	1,367,000	2,017,000

4.2.2. Impacts from Alternative B

Direct and Indirect Impacts

Under Alternative B, 15% of lands with a scenic quality rating of A would be in VRM Class II, allowing for a low level of change to the scenic quality; 85% of these areas would be managed in VRM Class III or VRM Class IV, potentially allowing for a moderate to high degree of change to the scenic quality (Table 19).

Table 19. VRM Classes by Scenic Quality Rating in Alternative B (acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	4,000	1,000
VRM Class II	6,000	120,000	215,000
VRM Class III	35,000	303,000	743,000
VRM Class IV	0	0	0

Under Alternative B, 2% of lands with a high level of public concern for scenic quality would be managed in VRM Class I, resulting in the preservation of the existing visual character of those lands; 43% of these lands would be managed in VRM Class II, allowing a low level of change (Table 20). The remainder of the lands with a high level of public concern for scenic quality (55%) would be managed in a VRM Class that would allow for a moderate to high level of change.

Table 20. VRM Classes by Sensitivity Rating in Alternative B (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	3,000	2,000	1,000
VRM Class II	61,000	123,000	157,000
VRM Class III	67,000	605,000	411,000
VRM Class IV	0	0	0

Under Alternative B, all VRI Class I acres would be in VRM Class I, resulting in preservation of the existing visual character of those lands (Table 21). With regard to VRI Class II lands, 2% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 43% would be in VRM Class II, allowing a low level of change; 54% would be in VRM Class III, potentially resulting in only partially retaining the character of those lands.

Table 21. VRM Classes by VRI Classes in Alternative B (acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	3,000	2,000	1,000
VRM Class II	0	54,000	83,000	201,000
VRM Class III	0	67,000	319,000	696,000
VRM Class IV	0	0	0	0

Cumulative Impacts

Under Alternative B, none of lands with a scenic quality rating of A managed as VRM Class IV are managed by BLM (Table 24). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 22. VRM Classes by Scenic Quality Rating for All Inventoried Lands in the Planning Area in Alternative B (acres)

VRM Class	Scenic Quality Rating		
	A	B	C

VRM Class I	0	4,000	1,000
VRM Class II	6,000	120,000	215,000
VRM Class III	35,000	303,000	743,000
VRM Class IV	20,000	1,153,000	1,516,000

With regard to sensitivity, none of lands with a high level of public concern for scenic quality managed as VRM Class IV are managed by BLM (Table 25). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 23. VRM Classes by Sensitivity Rating on All Inventoried Lands in the Planning Area in Alternative B (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	3,000	2,000	1,000
VRM Class II	61,000	123,000	157,000
VRM Class III	67,000	605,000	411,000
VRM Class IV	156,000	740,000	1,177,000

The analysis of cumulative impacts for Alternative B identifies an increase in the number of acres in VRM Class IV (Table 24). For VRI Class I and Class II lands, none of the lands managed in VRM Class IV are managed by the BLM. With regard to VRM Classes, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 24. VRM Classes by VRI Classes for All Inventoried Lands in the Planning Area in Alternative B (acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	3,000	2,000	1,000
VRM Class II	0	54,000	83,000	201,000
VRM Class III	0	67,000	319,000	696,000
VRM Class IV	7,000	156,000	1,073,000	1,455,000

4.2.3. Impacts from Alternative C

Direct and Indirect Impacts

Under Alternative C, none of lands with a scenic quality rating of A would be in VRM Class II. Instead, all of these areas would be managed in VRM Class III or VRM Class IV, potentially allowing for a moderate to high degree of change to the scenic quality (Table 19).

Table 25. VRM Classes by Scenic Quality Rating in Alternative C (acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	3,000	0
VRM Class II	0	1,000	1,000
VRM Class III	6,000	107,000	181,000
VRM Class IV	35,000	316,000	778,000

Under Alternative C, 2% of lands with a high level of public concern for scenic quality would be managed in VRM Class I, resulting in the preservation of the existing visual character of those lands (Table 20). The remainder of the lands with a high level of public concern for scenic quality (98%) would be managed in a VRM Class that would allow for a moderate to high level of change.

Table 26. VRM Classes by Sensitivity Rating in Alternative C (acres)

VRM Class	Sensitivity Rating

	High	Medium	Low
VRM Class I	3,000	0	0
VRM Class II	0	2,000	1,000
VRM Class III	53,000	91,000	150,000
VRM Class IV	75,000	637,000	418,000

Under Alternative C, all VRI Class I acres would be in VRM Class I, resulting in preservation of the existing visual character of those lands (Table 27). With regard to VRI Class II lands, 2% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 37% would be in VRM Class III, potentially resulting in only partially retaining the character of those lands; and 60% would be in VRM Class IV, potentially resulting in a high level of change to those acres.

Table 27. VRM Classes by VRI Classes in Alternative C (acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	3,000	0	0
VRM Class II	0	0	2,000	1,000
VRM Class III	0	47,000	77,000	162,000
VRM Class IV	0	75,000	324,000	730,000

Cumulative Impacts

Under Alternative C, 63% of lands with a scenic quality rating of A managed as VRM Class IV are managed by BLM (Table 24). With regard to scenic quality, management on non-BLM lands has less impact to visual resources than management on BLM-managed lands.

Table 28. VRM Classes by Scenic Quality Rating for All Inventoried Lands in the Planning Area in Alternative C (acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	3,000	0
VRM Class II	0	1,000	1,000
VRM Class III	6,000	107,000	181,000
VRM Class IV	55,000	316,000	778,000

With regard to sensitivity, 32% of lands with a high level of public concern for scenic quality managed as VRM Class IV are managed by BLM (Table 25). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 29. VRM Classes by Sensitivity Rating on All Inventoried Lands in the Planning Area in Alternative C (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	3,000	0	0
VRM Class II	0	2,000	1,000
VRM Class III	53,000	91,000	150,000
VRM Class IV	231,000	1,377,000	1,595,000

The analysis of cumulative impacts for Alternative C identifies an increase in the number of acres in VRM Class IV (Table 30). For VRI Class I lands, none of the lands managed in VRM Class IV are managed by the BLM. For VRI Class II lands, 33% of those managed in VRM Class IV are managed by the BLM; two-thirds of these lands are not managed by BLM. With regard to VRM Classes, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Table 30. VRM Classes by VRI Classes for All Inventoried Lands in the Planning Area in Alternative C (acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	3,000	0	0
VRM Class II	0	0	2,000	1,000
VRM Class III	0	47,000	77,000	162,000
VRM Class IV	7,000	231,000	1,396,000	2,185,000

4.2.4. Summary of Impacts

The comparison among alternatives was limited to VRI Class II lands because they are the most susceptible to impacts due to their high visual quality. All acres rated as VRI Class I would be managed as VRM Class I in all alternatives.

Table 31 summarizes the impacts of the alternatives on lands in VRI Class II lands. More VRI Class II lands would be managed under VRM Class I or II in Alternative B than any other alternative, resulting in more retention of the visual character of the landscape in these areas. Alternative C manages more VRI Class II lands under VRM Class III or IV than any alternative, allowing for more change to the visual character of the landscape in these areas.

Table 31. Impacts to VRI Class II Lands by Alternative (acres)

VRM Class	No Action Alternative	Alternative A (Preferred Alternative)	Alternative B	Alternative C
VRM Class I	3,000	3,000	3,000	3,000
VRM Class II	23,000	31,000	54,000	0
VRM Class II/III	10,000			
VRM Class III	10,000	57,000	67,000	47,000
VRM Class II/III/IV	30,000			
VRM Class III/IV	39,000			
VRM Class IV	10,000	33,000	0	75,000

4.3. Cultural Resources

4.3.1. Analysis Methods

Direct and Indirect Impacts

Landscapes, viewsheds, and man-made features are integral components of many places of traditional cultural importance to Native American tribes and to those historic sites with interpretive potential and public value. In addition, certain topographic features and archaeological, historic, and rock art sites play prominent roles in contemporary traditional Native American religious beliefs and practices. Actions that affect the viewshed of these places, or add new facilities, could negatively affect the attributes of a place of traditional cultural importance to Native American tribes that give it value and may diminish an historic site's ability to convey its importance to the public. Actions that reduce or eliminate visual impacts in the vicinity of places of traditional cultural importance would enhance the values and functions associated with these sites.

Managing public lands according to VRM Class objectives would affect the physical integrity and setting of important cultural resources by controlling the manner and degree of authorized changes to the visual landscape within a particular VRM Class. VRM Classes I and II maintain the setting of cultural resources by restricting developments that alter the existing viewshed. VRM Class III management would allow moderate alteration of the existing landscape, and VRM Class IV managed lands would provide little or no restriction on visual intrusions to the landscape. For this analysis, the acres in each VRM Class for each alternative are based on BLM acres on Cultural ACECs per current GIS data layer information.

Cumulative Impacts

The two most common types of development in the FFO are leasable mineral development and ROWs. Under the 2003 Farmington RMP, Cultural Resource ACECs are managed under a No Surface Occupancy or Controlled Surface Use constraints for leasable mineral development and as ROW exclusion or avoidance areas. These allocations restrict the potential for reasonably foreseeable actions to impact landscapes or viewsheds in Cultural Resource ACECs. Thus, there are no reasonably foreseeable actions that will impact landscapes or viewsheds in Cultural Resource ACECs beyond those analyzed in the 2003 Farmington PRMP/FEIS. In addition, proposed projects will be subject to site-specific NEPA analysis.

4.3.2. Impacts from the No Action Alternative

Direct and Indirect Impacts

Under the No Action Alternative, 38,000 acres, 64% of the acres in Cultural Resource ACECs, would be managed to retain their existing visual character, resulting in the preservation of the existing visual setting (VRM Class I and II; Table 32). The visual setting of the remaining 21,000 acres would have more potential to change, as they would be in VRM Class II/III or VRM Class III.

Table 32. VRM Classes for Cultural Resource ACECs in the No Action Alternative

VRM Class	Acres Managed as Cultural Resources ACECs
VRM Class I	3,000
VRM Class II	35,000
VRM Class II/III	7,000
VRM Class III	14,000
VRM Class IV	0

4.3.1. Impacts from the Alternative A (Preferred Alternative)

Direct and Indirect Impacts

Under Alternative A, 55,000 acres, 95% of the acres in Cultural Resource ACECs, would be managed to retain their existing visual character, resulting in the preservation of the existing visual setting (VRM Class I and II; Table 33). The visual setting of the remaining 3,000 acres would have more potential to change, as they would be in VRM Class III. The two Cultural ACECs that would be managed as a VRM Class III are Cedar Hill ACEC (2,000 acres) and La Jara ACEC (1,000 acres). These ACECs are managed for their scientific and educational values, so VRM Class III management is not anticipated to impact culturally important landscapes or viewsheds.

Table 33. VRM Classes for Cultural Resource ACECs in Alternative A (Preferred Alternative)

VRM Class	Acres Managed as Cultural Resources ACECs
VRM Class I	3,000
VRM Class II	52,000
VRM Class III	3,000
VRM Class IV	0

4.3.2. Impacts from Alternative B

Direct and Indirect Impacts

Under Alternative B, all Cultural Resource ACECs (58,000 acres) would be managed to retain their existing visual character, resulting in the preservation of the existing visual setting (VRM Class I and II; Table 34).

Table 34. VRM Classes for Cultural Resource ACECs in Alternative B

VRM Class	Acres Managed as Cultural Resources ACECs
VRM Class I	3,000
VRM Class II	55,000
VRM Class III	0
VRM Class IV	0

4.3.3. Impacts from Alternative C

Direct and Indirect Impacts

Under Alternative C, 3,000 acres, 5% of the acres in Cultural Resource ACECs, would be managed to retain their existing visual setting (VRM Class I and II; Table 35). The visual setting of the remaining 55,000 acres would have more potential to change, as they would be in VRM Class III. The two Cultural ACECs that would be managed as a VRM Class III are Cedar Hill ACEC (2,000 acres) and La Jara ACEC (1,000 acres). These ACECs are managed for their scientific and educational values, so VRM Class III management is not anticipated to impact culturally important landscapes or viewsheds.

Table 35. VRM Classes for Cultural Resource ACECs in Alternative C

VRM Class	Acres Managed as Cultural Resources ACECs
VRM Class I	0
VRM Class II	3,000
VRM Class III	55,000
VRM Class IV	0

4.3.4. Summary of Impacts

Alternative B would manage all lands in Cultural ACECs to maintain their visual setting (Table 36. Summary of Impacts to Cultural ACECs by Alternative (acres). Under Alternative A, 5% of the lands in Cultural ACECs could experience changes to the visual setting; while under Alternative C, 95% of the lands in Cultural ACECs could experience changes to the visual setting.

Table 36. Summary of Impacts to Cultural ACECs by Alternative (acres)

VRM Class	No Action Alternative	Alternative A (Preferred Alternative)	Alternative B	Alternative C
VRM Class I	3,000	3,000	3,000	0
VRM Class II	35,000	52,000	55,000	3,000
VRM Class II/III	7,000			
VRM Class III	14,000	3,000	0	55,000
VRM Class IV	0	0	0	0

4.4. Leasable Minerals

4.4.1. Analysis Methods

Direct and Indirect Impacts

VRM Class allocations prescribe the level of change to the visual landscape that would be allowed in those areas. Surface disturbance related to leasable mineral exploration, development, and production facilities on new leases would need to meet objectives for the particular VRM Class for the area. Areas in VRM Class I or II are managed to preserve or retain the existing character of the landscape, which would constrain leasable mineral exploration and development activities on new leases by requiring mitigation and special project considerations. This could involve relocation or elimination of certain facilities and measures to mitigate alterations to line, form, color, and texture, which could result in additional time and

costs to project development. The complexity to development projects could be substantial in VRM Class I areas and somewhat less substantial in VRM Class II areas. Areas in VRM Class IV would have the least constraint on mineral leasing and, therefore, the least impact to project complexities. Areas allocated to VRM Class I or II are assumed to result in the most constraint to mineral leasing.

Management for existing leases would be subject to valid and existing rights. VRM Classes could not impose stipulations or constraints beyond those identified when the lease was offered for sale.

Cumulative Impacts

There are no reasonably foreseeable actions that would result in constraints on leasable mineral development within the FFO. Cumulative impacts are not analyzed further.

4.4.2. Impacts from the No Action Alternative

Direct and Indirect Impacts

Under the No Action Alternative, all acres managed under VRM Class I or II are managed under NSO or CSU stipulations under the 2003 Farmington RMP (Table 37). Management for existing leases would be subject to valid and existing rights.

Table 37. VRM Classes by Areas Open and Closed to Leasable Mineral Development in the No Action Alternative

VRM Class	Acres Open to Leasable Mineral Development				Acres Closed to Leasable Mineral Development
	NSO Stipulation	CSU Stipulation	NSO/CSU Stipulation	Standard Terms and Conditions	
VRM Class I	1,000	0	0	0	54,000
VRM Class II	26,000	6,000	12,000	0	17,000
VRM Class II/III	27,000	0	7,000	0	9,000
VRM Class III	0	97,000	0	0	10,000
VRM Class II/IV	0	41,000	0	0	0
VRM Class II/III/IV	0	47,000	7,000	0	0
VRM Class III/IV	0	190,000	0	876,000	0
VRM Class IV	4,000	38,000	0	0	0

4.4.3. Impacts from the Alternative A (Preferred Alternative)

Direct and Indirect Impacts

Under Alternative A, all acres managed under VRM Class I or II are managed under NSO or CSU stipulations or closed to leaseable mineral development under the 2003 Farmington RMP (Table 38). Thus, the application of these VRM Classes would not create additional constraints beyond those identified in the 2003 Farmington RMP. Management for existing leases would be subject to valid and existing rights.

Table 38. VRM Classes by Areas Open and Closed to Leasable Mineral Development in Alternative A

VRM Class	Acres Open to Leasable Mineral Development				Acres Closed to Leasable Mineral Development
	NSO Stipulation	CSU Stipulation	NSO/CSU Stipulation	Standard Terms and Conditions	
VRM Class I	3,000	0	0	0	48,000
VRM Class II	25,000	13,000	22,000	0	23,000
VRM Class III	0	390,000	11,000	0	25,000
VRM Class IV	1,000	12,000	0	876,000	0

4.4.1. Impacts from the Alternative B

Direct and Indirect Impacts

Under Alternative B, all acres managed under VRM Class I or II are managed under NSO or CSU stipulations or closed to leasable mineral development under the 2003 Farmington RMP (Table 42). Thus, the application of these VRM Classes would not create additional constraints beyond those identified in the 2003 Farmington RMP. Management for existing leases would be subject to valid and existing rights.

Table 39. VRM Classes by Areas Open and Closed to Leasable Mineral Development in Alternative B

	Acres Open to Leasable Mineral Development				Acres Closed to Leasable Mineral Development
VRM Class	NSO Stipulation	CSU Stipulation	NSO/CSU Stipulation	Standard Terms and Conditions	
VRM Class I	3,000	0	0	0	48,000
VRM Class II	25,000	226,000	26,000	0	43,000
VRM Class III	1,000	189,000	7,000	876,000	5,000
VRM Class IV	0	0	0	0	0

4.4.2. Impacts from the Alternative C

Direct and Indirect Impacts

Under Alternative C, all acres managed under VRM Class I or II are managed under an NSO stipulation or closed to leasable mineral development under the 2003 Farmington RMP (Table 42). In addition, were the leases on these acres to expire, the acres would become closed to leasing. Thus, the application of these VRM Classes would not create additional constraints beyond those identified in the 2003 Farmington RMP. Management for existing leases would be subject to valid and existing rights.

Table 40. VRM Classes by Areas Open and Closed to Leasable Mineral Development in Alternative B

	Acres Open to Leasable Mineral Development				Acres Closed to Leasable Mineral Development
VRM Class	NSO Stipulation	CSU Stipulation	NSO/CSU Stipulation	Standard Terms and Conditions	
VRM Class I	0	0	0	0	47,000
VRM Class II	3,000	0	0	0	0
VRM Class III	25,000	188,000	26,000	0	33,000
VRM Class IV	1,000	228,000	7,000	876,000	14,000

4.4.3. Summary of Impacts

Under all alternatives, areas open to leasable mineral development under standard terms and conditions would be managed as VRM Class III or IV. Alternative B has the most restrictive management with those acres managed as VRM Class III, which the other alternatives would provide less restriction with a VRM Class IV designation.

Table 41. VRM Classes by Acres Open to Leasable Mineral Development Under Standard Terms and Conditions by Alternative

VRM Class	No Action Alternative	Alternative A (Preferred Alternative)	Alternative B	Alternative C
VRM Class I	0	0	0	0

VRM Class II	0	0	0	0
VRM Class III	0	0	876,000	0
VRM Class III/IV	876,000			
VRM Class IV	0	876,000	0	876,000

4.5. Recreation

4.5.1. Analysis Methods

Direct and Indirect Impacts

Visual resources are an important part of many recreational experiences. It was assumed that people recreate in the FFO recreation areas because they enjoy the existing character of the landscape. Thus, a change to the visual character could be perceived as a negative impact to their recreational experience.

Cumulative Impacts

The two most common types of development in the FFO are leasable mineral development and ROWs. Under the 2003 Farmington RMP, allocations for leasable mineral and ROW development are identified. The impacts from these allocations on recreation were analyzed in the 2003 Farmington PRMP/FEIS. Thus, there are no reasonably foreseeable actions beyond those analyzed in the 2003 Farmington PRMP/FEIS. The 2003 Farmington RMP disclosed that cumulative impacts are most likely to occur on dispersed recreation throughout the region. Management of SDAs would generally preserve some of the most favored public recreation areas (BLM 2003a, 4-128). In addition, proposed projects will be subject to site-specific NEPA analysis.

4.5.2. Impacts from the No Action

Direct and Indirect Impacts

Under the No Action Alternative, 51,000 acres, 34% of FFO recreation areas, would be managed to retain their existing visual character (VRM Class I or II; Table 42). The visual character of 98,000 acres managed as VRM Class III would have more potential to change, potentially leading to negative impacts to recreational experiences. The two recreation areas that would be managed as a VRM Class IV are Dunes Vehicle Recreation Area and Head Canyon Motocross Track. Recreational activities in these areas are much less dependent on visual resources, so VRM Class IV management is not anticipated to negatively impact recreational experiences.

Table 42. VRM Classes for Recreation Areas in the No Action Alternative

VRM Class	Acres Managed as Recreation Areas
VRM Class I	5,000
VRM Class II	21,000
VRM Class III	49,000
VRM Class IV	1,000

4.5.3. Impacts from Alternative A (Preferred Alternative)

Direct and Indirect Impacts

Under Alternative A, 30,000 acres, 41% of FFO recreation areas would be managed to retain their existing visual character (VRM Class I or II; Table 43). The visual character of 43,000 acres managed as VRM Class III would have more potential to change, potentially leading to negative impacts to recreational experiences. The two recreation areas that would be managed as a VRM Class IV are Dunes Vehicle Recreation Area and Head Canyon Motocross Track. Recreational activities in these areas are

much less dependent on visual resources, so VRM Class IV management is not anticipated to negatively impact recreational experiences.

Table 43. VRM Classes for Recreation Areas in the Alternative A (Preferred Alternative)

VRM Class	Acres Managed as Recreation Areas
VRM Class I	0
VRM Class II	30,000
VRM Class III	43,000
VRM Class IV	1,000

4.5.1. Impacts from Alternative B

Direct and Indirect Impacts

Under Alternative B, 42,000 acres, 56% of FFO recreation areas, would be managed to retain their existing visual character (VRM Class I or II; Table 44). The visual character of 32,000 acres managed as VRM Class III would have more potential to change, potentially leading to negative impacts to recreational experiences.

Table 44. VRM Classes for Recreation Areas in the Alternative B

VRM Class	Acres Managed as Recreation Areas
VRM Class I	0
VRM Class II	42,000
VRM Class III	32,000
VRM Class IV	0

4.5.2. Impacts from Alternative C

Direct and Indirect Impacts

Under Alternative C, no FFO recreation areas would be managed to retain their existing visual character (VRM Class I or II; Table 43). The visual character of 46,000 acres managed as VRM Class III would have more potential to change, potentially leading to negative impacts to recreational experiences. Two of the three recreation areas that would be managed as a VRM Class IV are Dunes Vehicle Recreation Area and Head Canyon Motocross Track. Recreational activities in these areas are much less dependent on visual resources, so VRM Class IV management is not anticipated to negatively impact recreational experiences. Management of the Glade Run Recreation Area as VRM Class IV could result in negative impacts to recreational experiences because this area is used for a variety of recreation activities.

Table 45. VRM Classes for Recreation Areas in the Alternative C

VRM Class	Acres Managed as Recreation Areas
VRM Class I	0
VRM Class II	0
VRM Class III	46,000
VRM Class IV	28,000

4.5.3. Summary of Impacts

Under Alternative B, more acres in recreation areas would be managed to retain their existing visual character than in any other alternative (Table 46). Alternative C places more acres in VRM Class IV, which would allow for major modification of the landscape, than any other alternative. While two of the three recreation areas that would be managed as a VRM Class IV are Dunes Vehicle Recreation Area and Head Canyon Motocross Track. Recreational activities in these areas are much less dependent on visual resources, so VRM Class IV management is not anticipated to negatively impact recreational

experiences. Management of the Glade Run Recreation Area as VRM Class IV in Alternative C could result in negative impacts to recreational experiences because this area is used for a variety of recreation activities.

Table 46. Summary of Impacts to Recreation Areas (acres)

VRM Class	No Action Alternative	Alternative A (Preferred Alternative)	Alternative B	Alternative C
VRM Class I	5,000	0	0	0
VRM Class II	21,000	30,000	42,000	0
VRM Class III	49,000	43,000	32,000	46,000
VRM Class IV	1,000	1,000	0	28,000

4.6. Land Use Authorizations

4.6.1. Analysis Methods

Direct and Indirect Impacts

Visual resource allocations prescribe the level of change to the visual landscape that would be allowed in specific areas. Areas in VRM Class I or II are managed to preserve or retain the existing character of the landscape, which would constrain land use authorizations by requiring mitigation and modifications to the project design that would tend to increase overall project costs. Areas in VRM Class IV would have the least constraint on land use authorizations.

In VRM Class I and II, stipulations to meet VRM objectives could be applied to lands and realty actions. The VRM classes could require design and siting requirements and affect associated costs on new ROWs or amended ROWs. Such requirements may restrict placement and could limit future access, delay availability of energy supply (by restricting pipelines, transmission lines, and wind/solar projects), and create dead zones or delay availability of communications services. Such requirements could also require utility corridors and communication sites to be installed in less desirable locations or areas with more restrictions on accessibility or construction.

ROW stipulations could require design and siting requirements and affect associated costs on new or amended ROWs. Restrictions may limit placement of future ROWs. Such requirements could also require utility corridors and communication sites to be installed in less desirable locations or areas with more restrictions on accessibility or construction.

Cumulative Impacts

There are no reasonably foreseeable actions that would result in constraints on land use authorizations within the FFO. Cumulative impacts are not analyzed further.

4.6.2. Impacts from the No Action

Direct and Indirect Impacts

In the No Action Alternative, 8% of the planning area would be managed to preserve or retain its existing visual character (VRM Class I or II); this would result in moderate to major constraints on land use authorizations within those areas.

4.6.1. Impacts from Alternative A (Preferred Alternative)

Direct and Indirect Impacts

In Alternative A, 9% of the planning area would be managed to preserve or retain its existing visual character (VRM Class I or II); this would result in moderate to major constraints on land use authorizations within those areas. However, ROWs in the majority of these areas are already restricted by allocations in the 2003 Farmington RMP.

4.6.2. Impacts from Alternative B

Direct and Indirect Impacts

In Alternative B, 26% of the planning area would be managed to preserve or retain its existing visual character (VRM Class I or II); this would result in moderate to major constraints on land use authorizations within those areas. However, ROWs in the majority of these areas are already restricted by allocations in the 2003 Farmington RMP.

4.6.3. Impacts from Alternative C

Direct and Indirect Impacts

In Alternative C, 4% of the planning area would be managed to preserve or retain its existing visual character (VRM Class I or II); this would result in moderate to major constraints on land use authorizations within those areas. However, ROWs in the majority of these areas are already restricted by allocations in the 2003 Farmington RMP.

4.6.4. Summary of Impacts

Under Alternative B, 26% of the planning area would be managed to preserve or retain its existing visual character. This alternative would result in more potential for moderate to major constraints on land use authorizations than any other alternative. Alternative C would result in the lowest potential for moderate to major constraints on land use authorizations with only 4% of the area managed to preserve or retain the existing visual character.

5. SUPPORTING INFORMATION

5.1. Tribal Consultation

The following tribal organizations were consulted in the development of this document:

5.1.1. Tribal Consultation

- Hopi Tribal Council Chairman LeRoy N. Shingoitewa
- Navajo Nation President Ben Shelly
- Southern Ute Indian Tribe Chairman Matthew J. Box
- Ute Mountain Ute Tribe Chairman Gary Hayes

5.1.2. Navajo Nation

- Baahaali Chapter President Isabelle Morgan
- Baca/Prewitt Chapter President Cecil Lewis Jr.
- Becenti Chapter President Benjamin Benally
- Casamero Lake Chapter President Fernie Yazzie
- Chichiltah Chapter President Jess Kirwin
- Churchrock Chapter President Johnnie Henry Jr.
- Counselor Chapter President Samuel Sage
- Crownpoint Chapter President McGarrett Pablo
- Huerfano Chapter President Ben Woody Jr.
- Iuanbito Chapter President Dorothy Rogers
- Lake Valley Chapter President Tony Padilla Jr.
- Littlewater Chapter President George S. Jim
- Manuelito Chapter President Milton Davidson
- Mariano Lake Chapter President Anthony Begay
- Nageezi Chapter President Ervin Chavez
- Nahodishgish Chapter President Lloyd Morgan
- Ojo Encino Chapter President Roger Toledo
- Pinedale Chapter President Anselm Morgan
- Pueblo Pintado Chapter President Billy Chiquito
- Red Rock Chapter President Charles B. Lee
- Torreon/Star Lake Chapter President Joe L. Cayadito Jr.
- Whitehorse Lake Chapter President Andrew Jim
- Tsayatoh Chapter President David Lee

5.1.3. Pueblos

- Pueblo of Acoma Governor Randall Vicente
- Pueblo of Isleta Governor Frank Lujan
- Pueblo of Laguna Governor Richard Luarkie
- Ohkay Owingeh Governor Ron Lavato
- Pueblo of Cochiti Governor Robert Pecis
- Pueblo of Jemez Governor Michael Toledo
- Pueblo of Nambe Governor Ernest Mirabal
- Pueblo of Picuris Governor Gerald Nailor
- Pueblo of Pojoaque Governor George Rivera
- Pueblo of San Felipe Governor Raymond Sandoval
- Pueblo of Santa Ana Governor Lawrence Montoya

- Kewa Pueblo Governor David F. Garcia
- Pueblo of Tesuque Governor Mark Mitchell
- Pueblo of Zuni Governor Arlen P. Quetawki, Sr.
- Pueblo of Sandia Governor Malcolm Montoya
- Pueblo of San Ildefonso Governor Perry Martinez
- Pueblo of Santa Clara Governor Walter Dasheno
- Pueblo of Taos Governor Nelson J. Cordova
- Pueblo of Zia Governor Marcellus Medina

5.1.4. Tribal Historic Preservation Offices (THPOs)

- The Hopi Tribe, Mr. Leigh Kuwanwisiwma, Director, Hopi Cultural Preservation Office
- Jicarilla Apache Nation, Dr. Jeff Blythe, THPO, Office of Cultural Affairs
- Navajo Nation, Dr. Alan S. Downer, THPO, Navajo Nation Historic Preservation Department
- Ohkay Owingeh (Pueblo of San Juan), Mr. Anthony Moquino, NAGPRA Representative
- Pueblo of Acoma, Ms. Theresa Pasqual, Director, Historic Preservation Office
- Pueblo de Cochiti, Mr. Gilbert Herrera, NAGPRA Representative
- Pueblo of Isleta, Valentino Jaramillo, Cultural Affairs Committee
- Pueblo of Jemez, Mr. Christopher Toya, Traditional Cultural Properties Project Manager
- Pueblo of Laguna, Larry Lente
- Pueblo of Picuris, Richard Mermejo, NAGPRA Representative
- Pueblo of Pojoaque, Mr. Vernon Lujan, THPO Representative
- Ute Mountain Ute Tribe, Mr. Terry Knight, Sr., NAGPRA Representative/THPO
- Zuni Tribe, Mr. Kurt Dongoske, Acting Director, THPO
- Pueblo of San Ildefonso, Mr. Brian Montoya, NAGPRA Contact
- Pueblo of Sandia, Mr. Frank Chavez
- Pueblo of Santa Ana, Mr. Ben Robbins, Tribal Resource Administrator
- Pueblo of Santa Clara, Mr. Ben Chavarria, (NAGPRA Contact)
- Pueblo of Taos, Mr. Donovan Gomez, Tribal Administrator
- Pueblo of Zia, Mr. Peter Pino (NAGPRA Contact for CO/UT), Tribal Administrator

5.2. Interested Parties

The following organizations, businesses, and government entities were identified as interested parties in the preparation of this document.

5.2.1. Organizations

- Independent Petroleum Association of New Mexico, John Thompson, President
- Sportsmen for Fish & Wildlife, Robert Espinoza Sr., Executive Director NM
- Earthworks, Gwen Lachelt, Director
- San Juan Citizens Alliance, Mike Eisenfeld
- Nature Conservancy, Terry Sullivan, State Director
- New Mexico Oil & Gas Association, Steve Henke
- New Mexico Wilderness Alliance, Stephen Capra, Executive Director
- WildEarth Guardians, John Horning, Executive Director
- Diné Care, Lori Goodman

5.2.2. Businesses

- Acme Television of New Mexico
- Alltel Communication Inc.
- American Tower Corp
- Andrea Corporation
- AT&T Mobility II Inc
- BHP Billiton
- BP America Production, Inc.
- Basin Broadcasting

- Bolack Minerals Company
- Broadband Broadrange Inc.
- Burlington Resources Oil & Gas Company
- Chevron Mining
- ChevronTexaco
- Clear Channel Communications
- Comcast
- ConocoPhillips Company
- Continental Divide Electric Coop
- Devon Energy Production Company, L. P.
- Cortez Pipeline Partnership
- Devon Energy Prod. Corp, LP
- Dugan Production Corporation
- EDCO
- El Paso Gas Marketing Co.
- El Paso Natural Gas Co
- Energen Resources Corporation
- Enterprise Field Services
- Farmington Electric Utility System
- Farmington Sand & Gravel
- Farnsworth
- FastTrack Communication Inc
- Four Corners Materials
- Four States Communications Inc
- GTP Acquisition Partners II LLC
- KOAT TV Hearst Argyle
- KOB TV LLC
- Jemez Mountains Electric Coop
- Merrion Oil & Gas Corporation
- Navajo Ministries Inc.
- Navajo Tribal Utility Authority
- New Mexico Gas Co
- Qwest Corp
- Robert L. Bayless Producer, LLC
- Sacred Wind Communications
- San Juan College
- Skanska
- T. H. McElvain Oil & Gas Properties
- T Mobile West Corp
- Texaco Exploration and Production
- Transwestern Pipeline Company
- Western Area Power Administration
- Williams Four Corners LLC
- Williams Production Company
- Vangard Wireless
- Verizon Wireless
- Voice Ministries
- XTO Energy Inc.

5.2.3. Government Entities

- Chaco Cultural National Historical Park, Superintendent Barbara West
- City of Aztec, Mayor Sally Burbridge
- City of Bloomfield, Mayor Scott Eckstein
- City of Farmington, Mayor Tommy Roberts
- McKinley County Commissioner Carol Bowman-Muskett
- Sandoval County Commissioner Darryl Madalena
- McKinley County Commissioner David Dallago
- McKinley County Commissioner Genevieve Jackson
- New Mexico Department of Game and Fish, Director Tod Stevenson
- State of New Mexico Department of Transportation
- New Mexico Historic Preservation Division, Jan V. Biella, Deputy SHPO, Department of Cultural Affairs
- New Mexico State Land Office, Ray Powell, MS, DVM
- New Mexico House of Representatives, James R. J. Strickler
- Rio Arriba Commissioner Alfredo Montoya
- Rio Arriba Commissioner Barney Trujillo
- Rio Arriba Commissioner Felipe Martinez
- San Juan County
- Sandoval County Commissioner Donald Chapman
- Sandoval County Commissioner Donald Leonard
- Sandoval Commissioner Glenn Walters
- Sandoval County Commissioner Orlando Lucero
- U.S. Bureau of Indian Affairs
- U.S. Bureau of Reclamation
- U.S. Fish & Wildlife Service, Dr. Benjamin Tuggle, Regional Director
- U.S. Forest Service, Carson National Forest, Jicarilla Ranger District, Mark Catron
- U.S. Senator Jeff Bingaman
- U.S. Representative Martin Heinrich
- U.S. Representative Ben Lujan
- U.S. Representatives Steve Pearce
- U.S. Senator Tom Udall

5.3. List of Preparers

Table 47 contains a list of the FFO staff who participated in the preparation of this document.

Table 47. List of Preparers

Name	Title
Lindsey Eoff	Project Manager
Janelle Alleman	Outdoor Recreation Specialist
Jim Copeland	Archaeologist
Adam Madigan	GIS Specialist
Joe Galluzzi	Geologist
Peggy Gaudy	Archaeologist (retired)
John Hansen	Wildlife Biologist
Joe Hewitt	Geologist
John Kendall	T&E Biologist
Sherrie Landon	Paleontologist/Environmental Protection Specialist
Amanda Nisula	Planning and Environmental Specialist
Sarah Scott	Natural Resource Specialist
Barney Wegener	Natural Resource Specialist
Steven (Craig) Willems	Environmental Protection Specialist

5.4. References

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Parker, Patricia L. and Thomas F. King 1998 Guidelines for Evaluating and Documenting Traditional Cultural Properties. National Park Service, National Register Bulletin 38. Washington.

Science Applications International Corporation 2002 Cultural Resources Technical Report: Background Information on Cultural Resources for the Farmington Draft RMP/EIS. Ms. on file, Bureau of Land Management, Farmington New Mexico.

APPENDIX A. COMPARISON OF ALTERNATIVE MANAGEMENT FOR SPECIALLY DESIGNATED AREAS

The following table identifies the proposed VRI Class and VRM Class for each Specially Designated Area, including ACECs, under each alternative. Areas are presented by category according to the values for which the area was designated.

Name	VRI Class[1]	VRM Class			
		No Action Alternative	Alternative A	Alternative B	Alternative C
Adams Canyon ACEC	III/IV	II	II	II	III
Ah-Shi-Sle-Pah Road ACEC	III	II	II	II	III
Ah-Shi-Sle-Pah WSA	I/III	I	I	I	I
Angel Peak ACEC	II	II	II	II	III
Angel Peak Scenic Area	II/III/IV	II	II	II	III
Ashii Naa'a (Salt Point) ACEC	III/IV	II	II	II	III
Alien Run Mountain Bike Trails	IV	III	II	II	III
Andrew's Ranch ACEC	III	I	I	I	II
Bald Eagle ACEC	II/III/IV	II	III	II	III
Bee Burrow ACEC	IV	I	I	I	II
Beechatuga Tongue Geological Formation	II	IV	II	II	III
Betonnie Tsosie Fossil Area	III/IV	III	III	III	IV
Bi Yaazh ACEC	III	II	II	II	III
Bis Sa'ani ACEC	IV	I	I	I	II
Bisti/De-Na-Zin Wilderness Area	I/III/IV/NR	I	I	I	I
Blanco Mesa ACEC	III	II	II	II	III
Blanco Star Panel ACEC	III	II	II	II	III
Bohanon Canyon Fossil Complex	IV	III	IV	III	IV
Cagle's Site ACEC	IV	II	II	II	III
Canyon View Ruin ACEC	III	II	II	II	III
Carracas Mesa Recreation / Wildlife Area	IV/NR	II	III	II	III
Carson Fossil Pocket	IV	III	III	III	IV
Casamero Community ACEC	III	I	I	I	II
Cedar Hill ACEC	IV	II	III	II	III
Cereza Canyon Wildlife Area	III/IV/NR	IV	III	II	IV
Chacra Mesa Complex ACEC	II	II	II	II	III
Cho'li'I (Gobernador Knob) ACEC	II	II	II	II	III
Christmas Tree Ruin ACEC	IV	II	II	II	III
Church Rock Outlier ACEC	III	II	II	II	III
Crow Canyon ACEC	II/III/IV	II/III	II	II	III
Crow Mesa Wildlife Area	III/IV	III/IV	III	II	III
Crownpoint Steps and Herrudura ACEC	III	II	II	II	III
Deer House ACEC	III	II	II	II	III
Delgadita / Pueblo Canyons ACEC	III/IV	II	II	II	III
Devil's Spring Mesa ACEC	III/IV	II	II	II	III
Dogie Canyon School ACEC	III/IV	II	II	II	III
Dunes Vehicle Recreation Area	IV	IV	IV	III	IV
Dzil'na'oodlii (Huerfano Mesa) ACEC	II/IV	II	II	II	III
East La Plata Wildlife Area	II/IV	III	III	III	IV

Name	VRI Class[1]	VRM Class			
		No Action Alternative	Alternative A	Alternative B	Alternative C
East Side Rincon ACEC	II/IV	II	II	II	III
Encierro Canyon ACEC	III/IV	II	II	II	III
Encinada Mesa - Carrizo Canyon ACEC	III/IV	II/III	II	II	III
Ensenada Mesa Wildlife Area	II/III/IV	III/IV	III	II	III
Ephemeral Wash Riparian Area	II/III/IV/NR	II/III/IV	III	III	IV
Farmer's Arroyo ACEC	IV	II	II	II	III
Fossil Forest RNA	II/III	I	I	I	I
Four Ye'i ACEC	III	II	II	II	III
Frances Mesa ACEC	IV	II/III	II	II	III
Glade Run Recreation Area	II/IV	III	III	III	IV
Gobernador and Cerza Canyon Fossil Area	II/III/IV/NR	IV	III	III	IV
Gonzalez Canyon - Senon S. Vigil Homestead ACEC	III/IV	II	II	II	III
Gonzales Mesa Wildlife Area	III/IV/NR	III/IV	III	II	III
Gould Pass Camp ACEC	IV	II	II	II	III
Halfway House ACEC	IV	I	I	I	II
Haynes Trading Post ACEC	III	II	II	II	III
Head Canyon Motocross Track	IV	IV	IV	III	IV
The Hogback ACEC	II/IV	II/III	III	II	IV
Holmes Group ACEC	IV	II	II	II	III
Hummingbird ACEC	III	II	II	II	III
Indian Creek ACEC	IV	I	I	I	II
Kahina Mask ACEC	III/IV	II	II	II	III
Kin Nizhoni ACEC	III	I	I	I	II
Kin Yazhi (Little House) ACEC	III	II	II	II	III
Kiva ACEC	IV	II	II	II	III
Kutz Canyon Fossil Area	II/III/IV	II/III/IV	III	III	IV
La Jara ACEC	IV	II	III	II	III
Laguna Seca Mesa Wildlife Area	II/III/IV/NR	IV	III	II	III
Largo Canyon Star Ceiling ACEC	III/IV	II	II	II	III
Lybrook Fossil Area	IV	III/IV	III	III	IV
Margarita Martinez Homestead ACEC	III	II	II	II	III
Martin Apodaca Homestead ACEC	III/IV	II	II	II	III
Martinez Canyon ACEC	III/IV	II	II	II	III
Mexican Spotted Owl ACEC	II/III/IV	IV	III	II	III
Middle Mesa Wildlife Area	II/IV	II/III	III	II	IV
Morris 41 ACEC	II	I	I	I	II
Moss Trail ACEC	IV	II	II	II	III
Munoz Canyon ACEC	III/IV	II	II	II	III
Navajo Lake Horse Trails	IV	III	II	III	III
Negro Canyon SDA	III/IV	I	II	II	III
North Road ACEC	I/II/III/IV	II	II	II	III
Pierre's Site ACEC	III	I	I	I	II
Pinon Mesa Fossil Area	III/IV	III	III	III	IV
Pinon Mesa Recreation Area	III/IV	III	III	II	III
Pointed Butte ACEC	III	II	II	II	III
Pregnant Basketmaker ACEC	IV	II	II	II	III
Pretty Woman ACEC	III	II	II	II	III

Name	VRI Class[1]	VRM Class			
		No Action Alternative	Alternative A	Alternative B	Alternative C
Prieta Mesa ACEC	IV	II	II	II	III
Rattlesnake Canyon Wildlife Area	II/III/IV	III/IV	III	II	III
Reese Canyon RNA	II/IV	II	III	II	III
Rincon Largo District ACEC	III	II	II	II	III
Rincon Rock Shelter ACEC	III/IV	II	II	II	III
River Tracts ACEC	II/III/IV/ NR	NA	III	III	IV
Rock Garden Recreation Area	IV	III	III	III	IV
Rock House - Nestor Martin Homestead ACEC	III	II	II	II	III
Rosa Mesa Wildlife Area	II/IV/NR	II/IV	III	III	IV
San Rafael Canyon ACEC	IV	II	II	II	III
Santos Peak ACEC	IV	II	II	II	III
Shield Bearer ACEC	IV	II	II	II	III
Simon Canyon ACEC	II/IV	II	II	II	III
Simon Ruin ACEC	II	II	II	II	III
Star Rock ACEC	III	II	II	II	III
Star Spring - Jesus Canyon ACEC	III/IV	II	II	II	III
Superior Mesa ACEC	III	II/III	II	II	III
Tapacito and Split Rock ACEC	III/IV	II	II	II	III
Thomas Canyon Recreation / Wildlife Area	II/III	I/III	II	II	III
Toh-La-Kai ACEC	III	I	I	I	II
Truby's Tower ACEC	III	II	II	II	III
Twin Angels ACEC	II	I	I	I	II
Upper Kin Klizhin ACEC	IV	I	I	I	II

[1] The inventory units for the VRI did not follow boundaries for specially designated areas, so areas may have more than one VRI Class. In addition, some areas may not have been rated. These are indicated with the code NR.