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**Farmington Field Office
Visual Resource Management
Proposed 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.

ACRONYMNS

ACEC	Area of Critical Environmental Concern
ATV	all-terrain vehicle
Bbls	barrels
Bcfd	billion cubic feet per day
BLM	Bureau of Land Management
CBM	coal-bed methane
CSU	Controlled Surface Use
EA	environmental assessment
EIS	environmental impact statement
FEIS	Final Environmental Impact Statement
FFO	Farmington Field Office
FLPMA	Federal Land Policy and Management Act of 1976
GIS	Geographic Information System
HP	horsepower
NEPA	National Environmental Policy Act of 1969
NHP	National Historical Park
NHT	National Historic Trail
NOI	Notice of Intent
NSO	No Surface Occupancy
OHV	off-highway vehicle
PRMP	Proposed Resource Management Plan
RFD	reasonably foreseeable development
RMP	Resource Management Plan
RMPA	Resource Management Plan Amendment
ROW	rights-of-way
SDA	Specially Designated Area
TCP	Traditional Cultural Property
Tscf	trillion standard cubic feet
UNESCO	United Nations Educational, Scientific and Cultural Organization
UTV	utility-terrain vehicle
VRI	visual resource inventory
VRM	Visual Resource Management
WSA	Wilderness Study Area

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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 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 alternatives, 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

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 for oil and gas development?
- 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 visibility?
 - VRM Classes address changes to form, line, color, and texture. They are not designed to address impacts to air quality values such as visibility. Impacts to air quality would be analyzed on a project-specific basis.
- How will the designation of VRM Classes impact Wilderness Areas and Wilderness Study Areas?

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

- 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. Analyzing the impacts to the alternatives in detail would not help make a reasoned choice among alternatives.
- How will the designation of VRM Classes impact dark skies around Chaco Canyon National Historic Park (NHP)?
 - BLM's VRM system does not address dark skies. VRIs do not capture dark sky values and VRM objectives do not account for the management of or impacts to dark skies. For this reason, the designation of VRM Classes through the VRM RMPA/EA would not provide for management for or impact dark sky values. Impacts to dark skies would be analyzed and addressed on a project-specific basis and would not be tied to the VRM Class objectives
- How will the designation of VRM Classes impact solid mineral development?
 - currently leased for coal development would not be affected by a change in VRM Class because they would be developed under their valid and existing rights. New coal leases are not anticipated to occur.
- How will the designation of VRM Classes impact economic features?
 - The designation of VRM Classes could impose constraints on development activities such as oil and gas development and rights-of-way. The level of constraints on these activities is analyzed in Sections 4.4 and 4.6. It is not possible to tie this level of constraint to a specific economic metric or determine a threshold at which the constraint poses a burden on development due to the site-specific nature of mitigation to comply with VRM Classes. For example, the mitigation of an oil tank could be anything from siting it behind a hill to painting it a color that reflects the landscape. Further, due to topography or site-specific characteristics, no mitigation may be required. As appropriate, impacts to economic features will be analyzed in site-specific environmental documents.
- How will the designation of VRM Classes impact Environmental Justice populations?
 - Executive Order 12898, issued on 11 February 1994, addresses concerns over disproportionate environmental and human health impacts on minority and low-income populations. The impetus behind environmental justice is to ensure that all communities, including minority, low-income, or federally recognized tribes, live in a safe and healthful environment. None of the management outlined in Section 2 would disproportionately impact a specific race or ethnicity. Impacts to Environmental Justice populations from site-specific projects that will need to comply with VRM classes cannot be anticipated and would be analyzed in site-specific environmental documents.

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.
- 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.
- **Management Specific to Alternative D** - This heading contains goals, objectives, allocations, and management actions that apply to Alternative D 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 Alternative², 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 thousand 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 focuses on providing a balance between resource uses and the retention of visual resource values. Alternative B allows for more retention of the visual character of the BLM-managed lands in the FFO while Alternative C allows for more modification of the visual character of BLM-managed lands in the FFO. Alternative D allowed for more retention of the visual character of the BLM-managed lands in the FFO along with offering the highest possible retention of visual character of areas surrounding Chaco Culture National Historical Park (5 miles from the boundary).

Table 3 provides a summary of the VRM Class designations by alternative. A summary of the VRM Class designations by alternative for each ACEC and SDA is located in Appendix A.

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

Table 3. Summary of Alternatives

VRM Class	Alternatives				
	No Action	A	B	C	D
VRM I	55,000	51,000	51,000	48,000	70,000
VRM II	60,000	82,000	344,000	3,000	322,000
VRM II/III	44,000				
VRM III	107,000	411,000	1,024,000	266,000	1,028,000
VRM II/IV	41,000				
VRM II/III/IV	47,000				
VRM III/IV	1,073,000				
VRM IV	42,000	877,000	0	1,103,000	0
Total	1,469,000	1,421,000	1,419,000	1,420,000	1,420,000

Note: Due to errors in the 2003 RMP, acreage totals for the No Action Alternative will not match those of the action alternatives. Acres for the action alternatives were calculated using GIS. Due to the degree of error contained in GIS and rounding, totals may vary slightly.

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 ACECs and 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 Wilderness Study Area (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'l (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
- Bettonie 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:

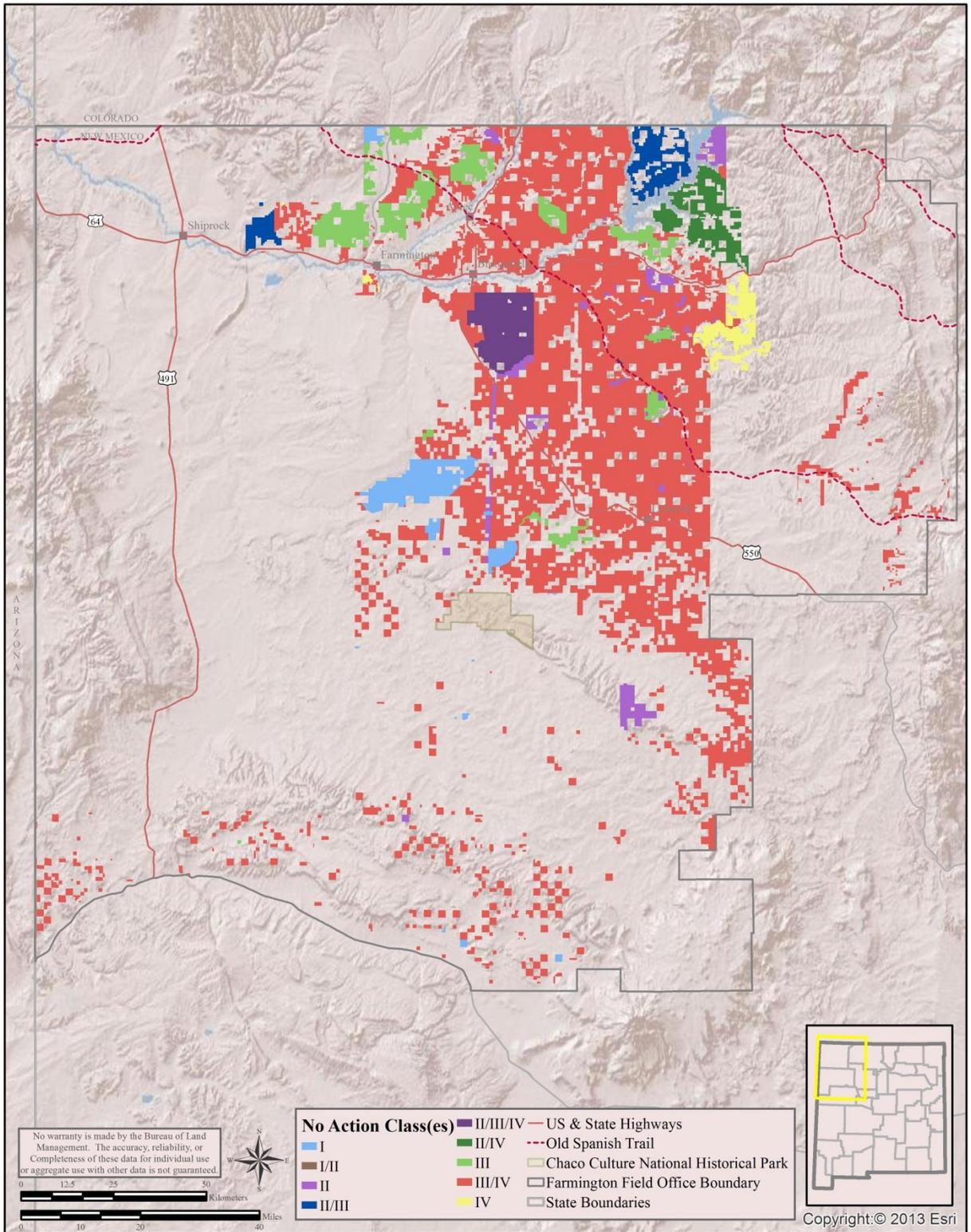
- Crow Mesa Wildlife Area
- Ensenada Mesa Wildlife Area
- Gonzales Mesa Wildlife Area
- Lybrook Fossil Area
- Rattlesnake Canyon Wildlife Area

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 Cereza 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

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
- Kachina 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 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-A-A- 3. Areas to be managed as VRM Class III (411,000 acres) would include:

- Bald Eagle ACEC
- Bettonie 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
- Middle Mesa Wildlife Area
- 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

VR-A-A- 4. The remainder of the area would be managed as VRM Class IV (877,000 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

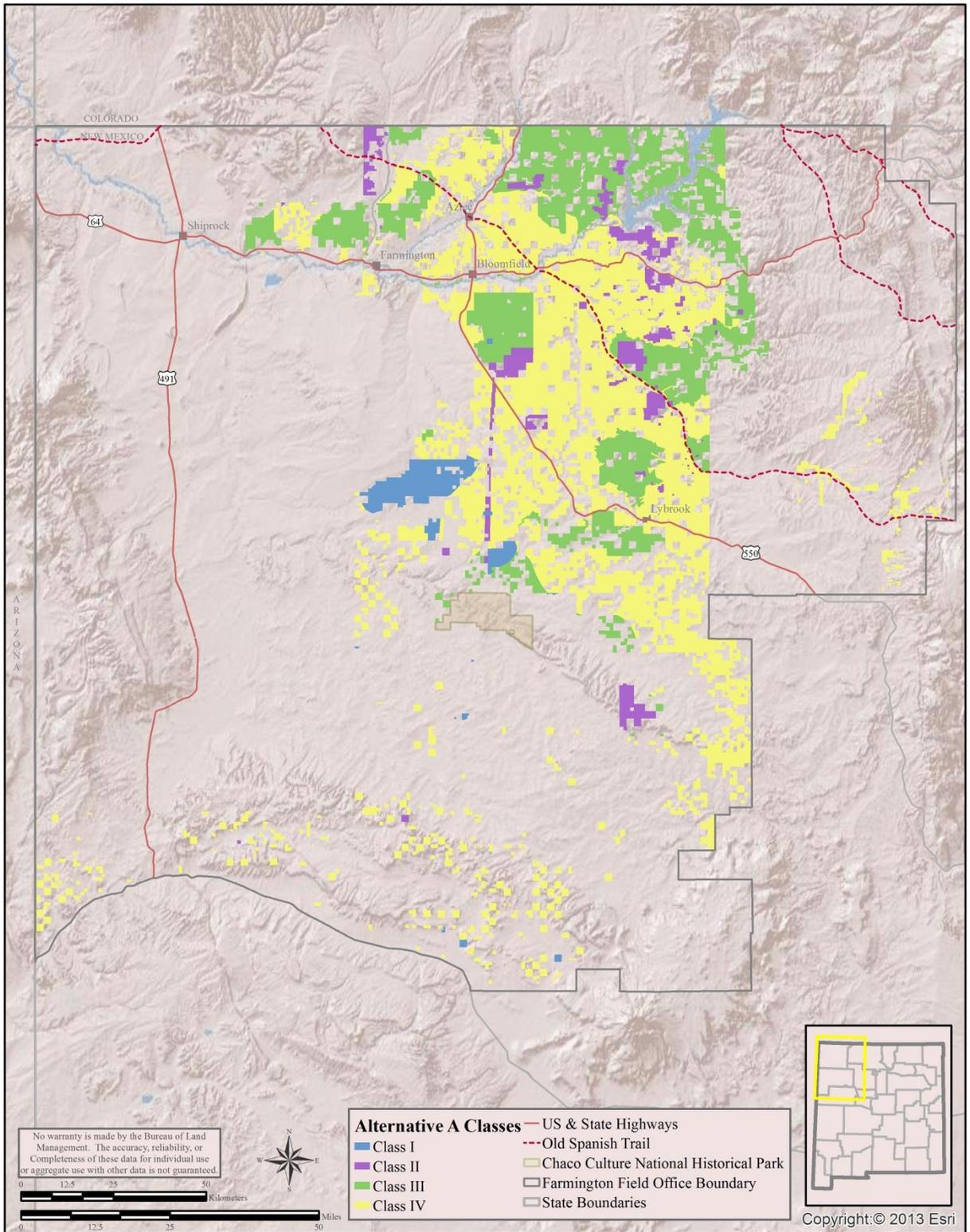
VR-A-MA- 1. Ensure BLM management activities and authorized uses are designed to meet the VRM objectives for the project area.

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



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 (344,000 acres) would include the foreground/middleground surrounding Chaco Culture National Historical Park (5 miles from the established Key Observation Points displayed in Figure 10) and the following:

- 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
- Ephemeral Wash Riparian Area (100 yr) where it coincides with portions of the high-potential segment of the Old Spanish Trail National Historic Trail (NHT)
- 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
- 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
- Middle Mesa Wildlife Area
- Moss Trail ACEC
- Munoz Canyon ACEC
- Negro Canyon SDA
- North Road ACEC and lands within a ¼ mile of the boundary of the 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 ACE

VR-B-A- 3. The remainder of the area would be managed as VRM Class III (1,024,000 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) where it does not coincide with the high-potential segment of the Old Spanish Trail NHT
- 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

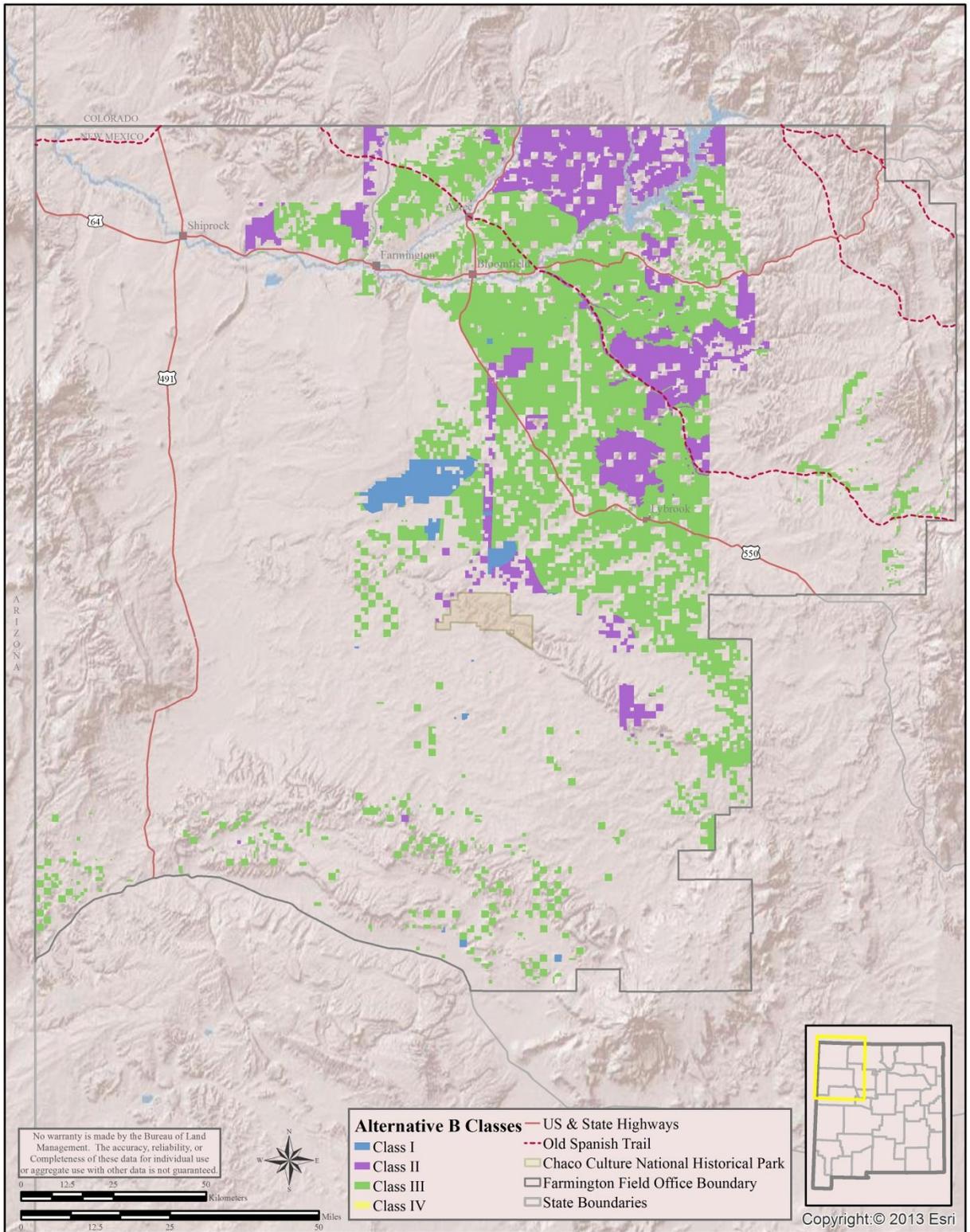
VR-B-MA- 1. Ensure BLM management activities and authorized uses are designed to meet the VRM objectives for the project area.

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:

- Ah-Shi-Sle-Pah WSA
- Bisti/De-Na-Zin Wilderness
- Fossil Forest RNA

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

- Andrew's Ranch ACEC
- Bee Burrow ACEC
- Bis Sa'ani ACEC
- Casamero Community ACEC
- 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 (266,000 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 (1,103,000 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 Cereza 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

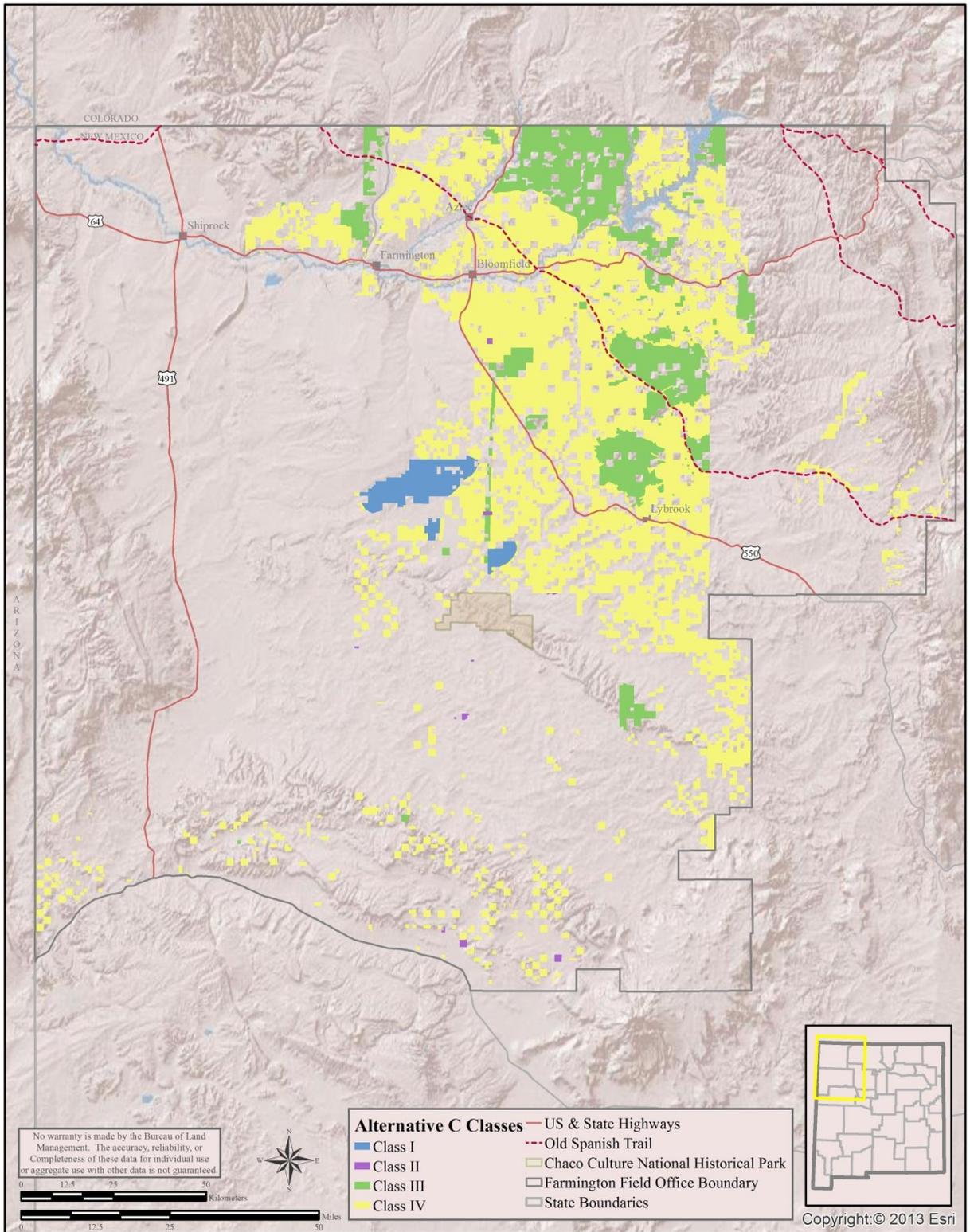
VR-C-MA- 1. Ensure BLM management activities and authorized uses are designed to meet the VRM objectives for the project area.

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



2.7. Alternative D

2.7.1. Goal

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

2.7.2. Allocations

VR-D-A- 1. Areas to be managed as VRM Class I (70,000 acres) would include the foreground/middleground surrounding Chaco National Historical Park (5 miles from the established Key Observation Points displayed in Figure 10) and the following:

- 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-D-A- 2. Areas to be managed as VRM Class II (322,000 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
- Glade Run Recreation Area
- 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
- 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
- Middle Mesa Wildlife Area
- Moss Trail ACEC
- Munoz Canyon ACEC
- Negro Canyon SDA
- North Road ACEC
- 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 ACE

VR-D-A- 3. The remainder of the area would be managed as VRM Class III (1,028,000 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)
- 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
- Pinon Mesa Recreation Area
- River Tracts ACEC
- Rock Garden Recreation Area
- Rosa Mesa Wildlife Area

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

See Figure 5 for the locations of areas allocated to each VRM Class.

2.7.3. Management Actions

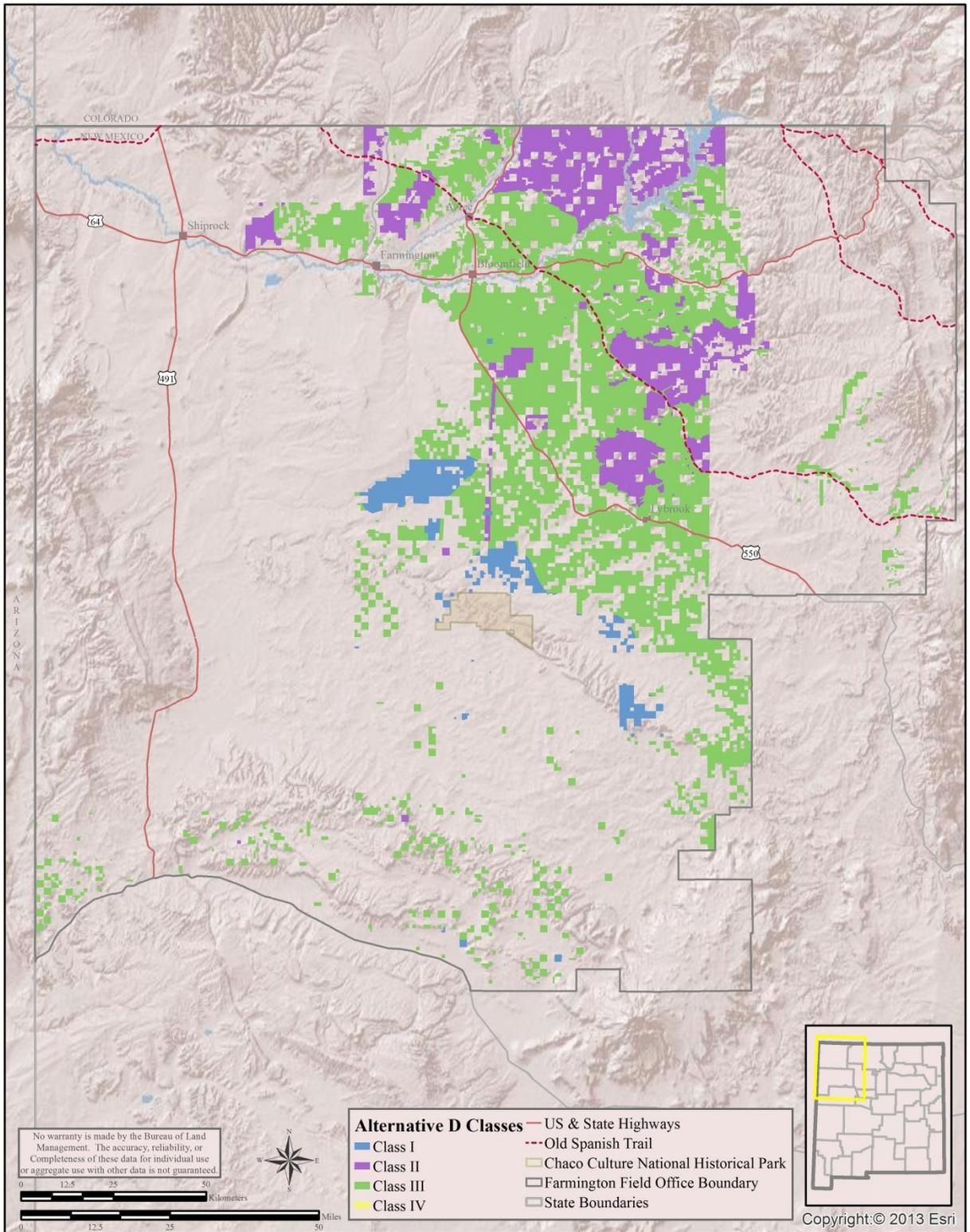
VR-D-MA- 1. Ensure BLM management activities and authorized uses are designed to meet the VRM objectives for the project area.

VR-D-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-D-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 5. VRM Classes in Alternative D



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 VRM system to help identify visual values and minimize visual impacts to the landscape character of public lands. In order to fulfill these requirements, VRI of the planning area was completed in March 2009 (Otak, 2009), and updated in July 2013.

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 1,560,000 acres, and scenic quality rating C was given to 2,450,000 acres (Figure 6). 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 411,000 acres, a medium sensitivity rating was given to 1,984,000 acres, and a low sensitivity rating was given to 1,722,000 acres in the planning area (Figure 7). 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 6. Scenic Quality Rating for the Farmington Field Office

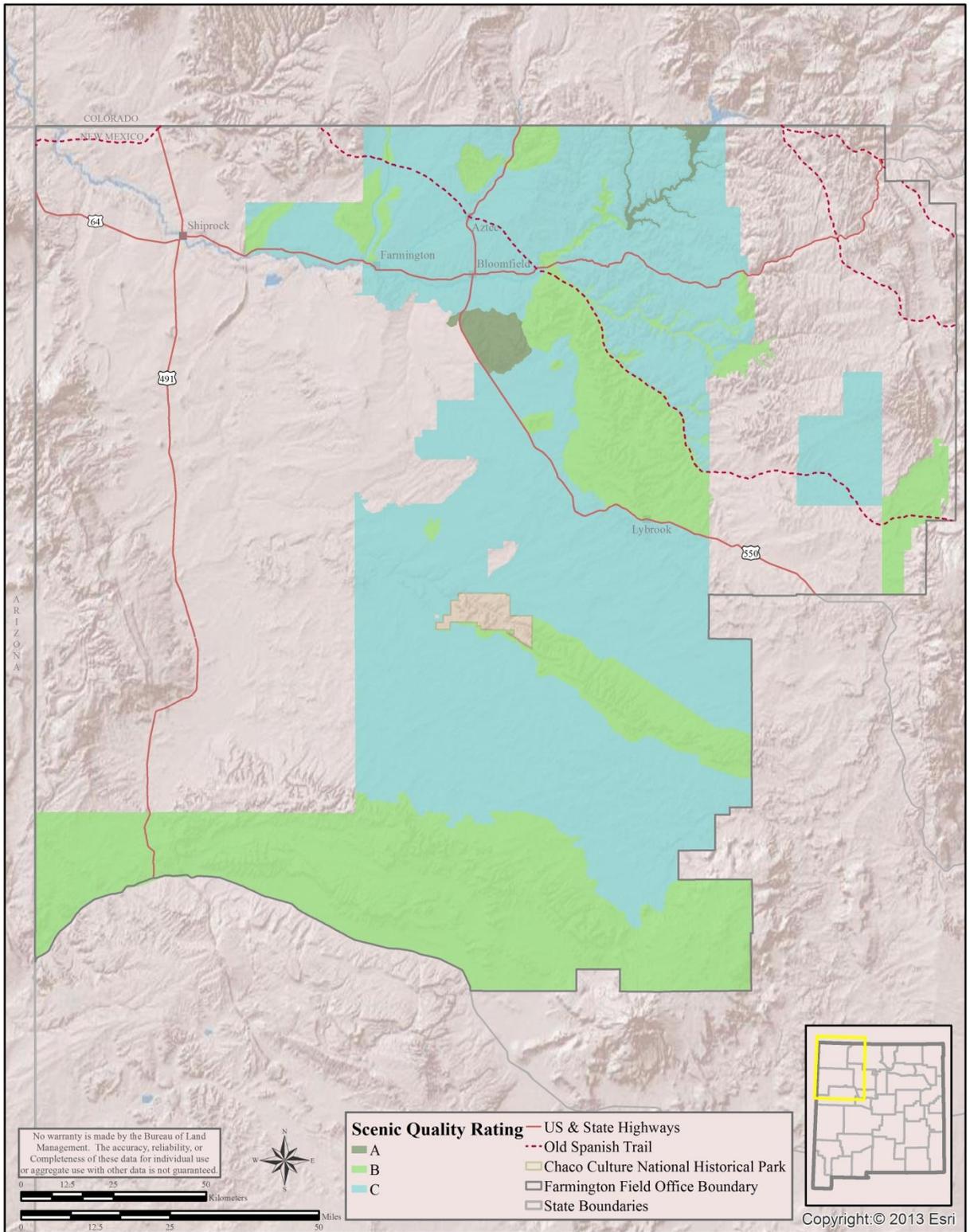
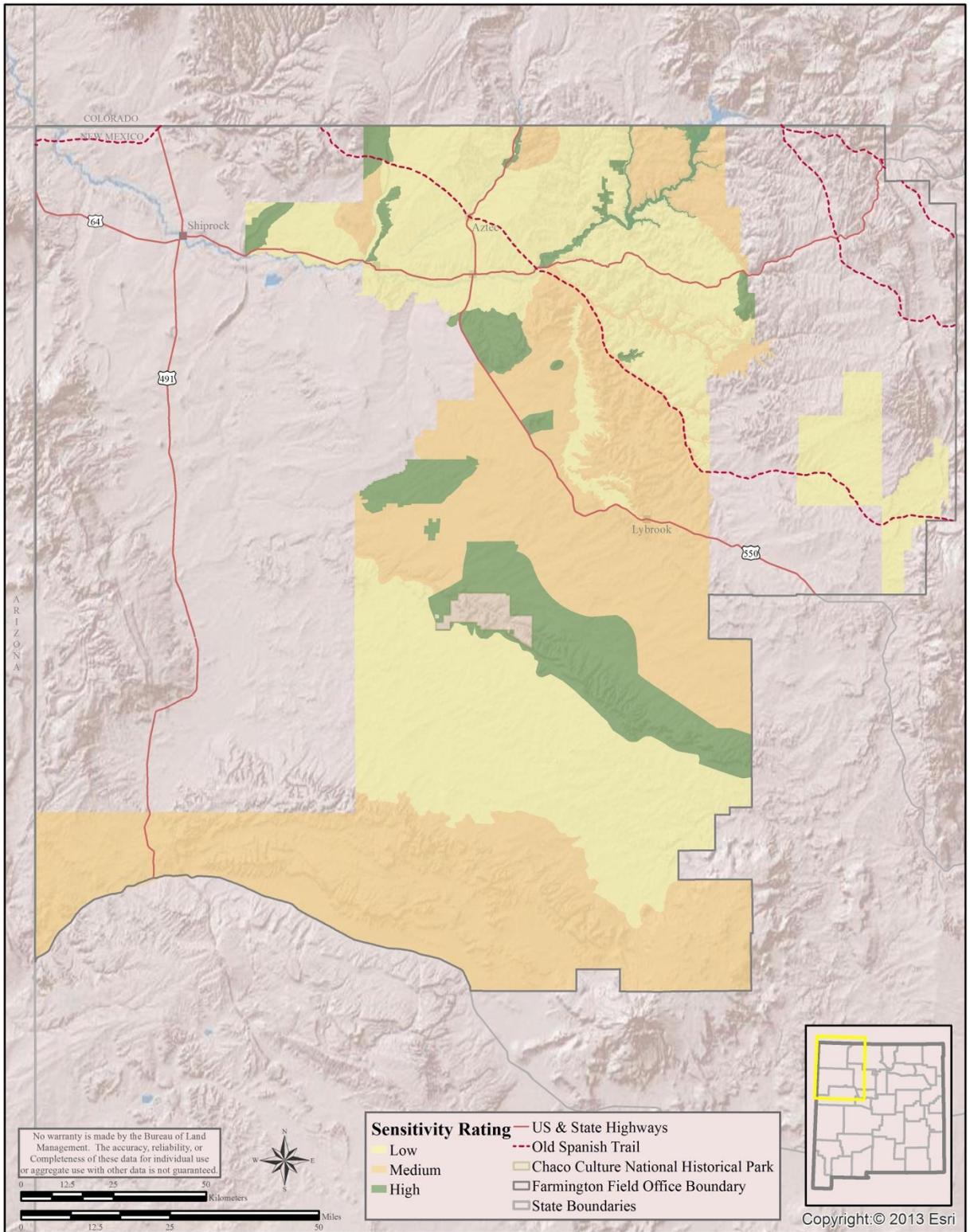


Figure 7. Visual Sensitivity Rating in the Farmington Field Office



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, 52,000 BLM-managed acres were identified as VRI Class I, 254,000 acres as VRI Class II, 1,348,000 acres as VRI Class III, and 2,463,000 acres as VRI Class IV. Figure 8 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 Culture NHP were not rated.

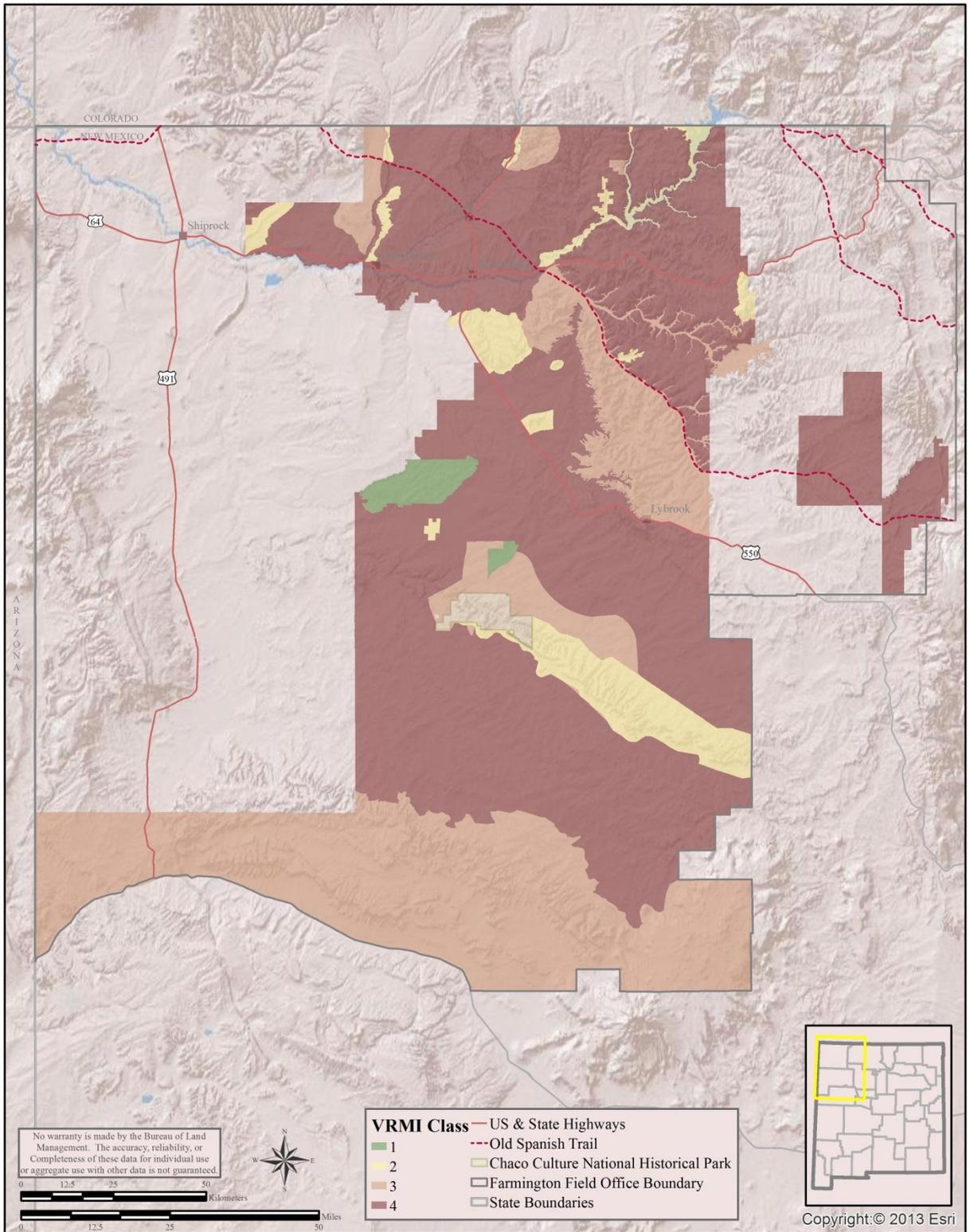
3.1. Cultural Resources

The FFO is located within the archaeologically rich San Juan Basin of northwestern New Mexico. In general, the history 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 1540), and the Historic (A.D. 1540 to present), which includes Native American as well as later Hispanic and Euro-American settlers. 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).

The National Register of Historic Places (36 CFR Part 60) is the basic benchmark by which the significance of cultural resources are evaluated by a federal agency when considering what effects its actions may have on cultural resources. To summarize, to be considered eligible for the National Register a cultural resource must have integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following criteria: a) are associated with events that have significantly contributed to the broad patterns of our history; or b) are associated with the lives of persons significant in our past; or c) embody distinctive characteristics of the type, period, or method of construction, or represents the work of a master, or possesses high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; or d) have yielded, or maybe likely to yield, information is important in a pre-history or history. Integrity of setting means that the quality of the surroundings of a site contributes to its significance if that aspect of integrity contributes to conveying the significance of a historic property.

Section 106 of the National Historic Preservation Act requires federal agencies to consider what effect their licensing, permitting, or otherwise authorizing of an undertaking, such as energy development, may have on properties eligible for the National Register. Pursuant to 36 CFR 800.16 (i), "Effect means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register."

Figure 8. VRI Classes for the Farmington Field Office



3.1.1. Cultural Resources

As of June 2013, over 13,200 cultural resource sites have been recorded on BLM-managed lands within the FFO. Over 45,500 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 rural/municipal/county/state/tribal/federal infrastructure. Seventy-five sites on BLM-managed lands are listed on the National Register of Historic Places and lie within designated cultural ACECs. One is a congressionally designated National Historic Trail (see Section 3.5), twelve of these ACECs are congressionally designated Chaco Protection Sites, and five are designated United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites (see Section 3.1.4).

The kinds of cultural sites found within the FFO, both pre-Columbian 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" (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 "El Buen Pastor Cemetery." in Largo Canyon 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 pre-Columbian pueblo sites as sacred and significant to the Zuni people. Many of the larger 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 (Fransted 1979)..

The 2003 Farmington RMP designated 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. **Error! Reference source not found.** identifies these Cultural ACECs.

3.1.2. Cultural Landscapes

Cultural landscapes "represent the 'combined works of nature and of man'... [and] are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal" (UNESCO 2008). The term embraces a diversity of manifestations of the interaction between humans and the natural environment and often reflects specific techniques of sustainable land use, considering the characteristics and limits of the natural environment they are established in, and a specific spiritual relation to nature. UNESCO (2008) further defined cultural landscapes as falling into three main categories:

- *Designed and created intentionally by man* – This embraces garden and parkland landscapes constructed for aesthetic reasons which are often (but not always) associated with religious or other monumental buildings and ensembles.
- *Organically evolved* – This results from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. They fall into two sub-categories:

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 Herradura	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	

- A relict (or fossil) landscape is one in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form.
- Continuing landscape is one which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress. At the same time it exhibits significant material evidence of its evolution over time.
- *Associative cultural landscape* – Such landscapes are defined by virtue of the powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent.

The National Park Service has defined cultural landscapes as “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values” (Birnbaum 1994; Birnbaum and Peters 1996). Under National Park Service guidance cultural landscapes have four definitions that are not mutually exclusive:

- *Historic Designed Landscape* – A landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition.

- *Historic Vernacular Landscape* – A landscape that evolved through use by the people whose activities or occupancy shaped that landscape.
- *Historic Site* – A landscape significant for its association with a historic event, activity, or person.
- *Ethnographic Landscape* – A landscape containing a variety of natural and cultural resources that associated people define as heritage resources.

Landscape characteristics are the tangible evidence of the activities and habits of the people who occupied, developed, used, and shaped the land to serve human needs and they may reflect the beliefs, attitudes, traditions, and values of these people. There is no comprehensive guidance on what characteristics to evaluate with regards to the landscape, or how to "read a landscape" (Birnbaum 1994). Whatever approach is taken should provide a broad overview. The National Park Service (1999; Birnbaum and Peters 1996) has offered a number of character defining features and organizational elements that should be examined when considering human use or activity in a geographic area for cultural landscapes:

- | | |
|--|--------------------------------------|
| • Land uses and activities | • Boundary demarcations |
| • Patterns of spatial organization | • Vegetation related to land use |
| • Response to the natural environment | • Buildings, structures, and objects |
| • Cultural traditions | • Clusters |
| • Circulation networks (e.g. roads, paths) | • Archaeological sites |
| • Topography | • Small-scale elements |
| • Water features | |

Zvelebil et al. (1992) identified seven major problems associated with landscape approaches to archaeological remains. To summarize, they include 1) lack of chronological resolution, 2) the palimpsest effect, 3) definition of a regional scale, 4) biases introduced through taphonomic processes, 5) variation over the landscape, 6) paleoenvironmental reconstruction, and 7) modern land use. Van Dyke (2007:8, 39) observed that "*the contemporary archaeological landscape is but a distorted remnant of the ancient landscape, and interpretations of both are and were culturally situated*" and that "*past landscapes no longer exist.*" Compounding the difficulty in defining a landscape is that it may be a composite of designed and vernacular/organic characteristics and at the same time represent a relic or fossil landscape to some and a continuing ethnographic/associative landscape to others.

A cultural landscape is also one of the categories of property qualifying for listing in the National Register as a historic site or district. A district (e.g. landscape) must be a definable geographic area that can be distinguished from surrounding properties by changes such as density, scale, type, age, style of sites, buildings, structures, and objects, or by documented differences in patterns of historic development or associations. It is seldom defined, however, by the limits of current parcels of ownership, management, or planning boundaries. The boundaries must be based upon *shared relationship* among the properties constituting the district. A district is usually a single geographic area of contiguous historic properties; however, a district can also be composed of two or more definable significant areas separated by nonsignificant areas. Clement (1999:17) advised that "*As a general rule, it is preferable to identify a reasonably defensible smaller landscape rather than stretching boundaries to distant horizons, and perhaps threatening the credibility of the process.*"

Landscapes can be read on many levels: landscape as nature, habitat, artifact, system, problem, wealth, ideology, history, place and aesthetic. A single landscape approach does not exist (Clark and Scheiber 2008; Van Dyke 2007). When developing a strategy to document a cultural landscape, it is important to attempt to read the landscape in its context of place and time (Birnbaum 1994). Within the Farmington Field Office there is an abundance of cultural resources representative of numerous cultural traditions that are spatially and temporally discrete and diffuse. These resources most assuredly represent a multitude of distinct and overlapping cultural landscapes.

For instance, Largo Canyon is a well-defined and distinct geographic area that was an important route of travel in prehistoric and historic periods and on that level there is a shared relationship among the properties related to travel and transportation. Native American trails passed through the canyon and numerous related trails lead out of the canyon to adjacent mesa tops via hand-and-toe-hold routes and

built features. Spanish military incursions in the 1700s and subsequent exploration and travel in both the 18th and 19th centuries followed Largo Canyon. Largo Canyon contains a high-potential route segment of the Old Spanish Trail NHT (see Section 3.5). Historic settlements on the San Juan River used Largo Canyon as a main thoroughfare to reach more established locations such as Santa Fe and Albuquerque. At one point, a railroad right-of-way was granted through Largo Canyon, and the original route of New Mexico Route 44 followed Largo Canyon to the San Juan River. Today it serves as a major access to natural gas wells and related industrial development. Largo Canyon seems an intuitively obvious candidate as a cultural landscape.

3.1.3. Chaco Culture NHP

Chaco Culture National Historical Park (NHP) was originally established as a national monument in 1907 for the purpose of reserving lands containing prehistoric remains of extraordinary interest due to their number, their great size, and their value. In 1980, Congress redefined Chaco Canyon National Monument as Chaco Culture NHP, recognized a more representative area that depicts the unique cultural remains of the prehistoric Chacoans, and provided for continued preservation, protection, research, and interpretation of the Chacoan culture.

CCNHP covers approximately 34,000 acres and is comprised of the main canyon area and three detached units: Kin Bineola, Kin Ya'a, and Pueblo Pintado (USA 1987).

Between AD 850 and 1250, Chaco Canyon served as a major urban center of ancestral Puebloan culture. Remarkable for its monumental public and ceremonial buildings, engineering projects, astronomy, artistic achievements, and distinctive architecture, it served as a hub of ceremony, trade, and administration for the prehistoric Four Corners area for 400 years—unlike anything before or since (NPS 2010).

The cultural resources contained within the park include an estimated 4,000 archaeological sites (of which 3,614 have been recorded) an estimated 1.5 million artifacts and archival documents, a vast cultural landscape that can be subdivided into numerous smaller units, and hundreds of sacred and/or traditional cultural properties and ethnographic resources (NPS, 2013a).

Chaco Culture National Historic Park is eligible for listing in the National Register under Criterion A for Event, Criterion C for Design/Construction and Criterion D for Information Potential and although all of the aspects of integrity apply to Chaco, setting and feeling are especially important to the visitor experience.

3.1.4. World Heritage Sites

The United States Senate signed onto the Convention Concerning the Protection of the World Cultural and Natural Heritage on October 26, 1973. Subsequently, under 16 U.S.C. § 470a-1, Congress charged the Secretary of the Interior with directing and coordinating the United States' participation in the Convention in cooperation with the Secretary of State, the Smithsonian Institution and the Advisory Council on Historic Preservation. The Department of Interior adopted rules at 36 C.F.R. § 73.1, et seq., setting forth the policies and procedures that it uses to direct and coordinate the U.S. participation in the Convention. Under these rules, the Department of the Interior is committed to "to enhance worldwide understanding and appreciation of heritage conservation, and to recognize and preserve natural and cultural properties throughout the world that have outstanding universal value to mankind." 36 C.F.R. § 73.1.

Chaco Culture NHP, Aztec Ruins National Monument, and the BLM managed Chaco outlier sites of Casamero, Halfway House, Kin Nizhoni, Pierre's Site, and Twin Angels and were named as United National Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Sites on December 8, 1987. The World Heritage listing includes the 34,000 acres in Chaco Canyon NHP, 318 acres in Aztec Ruins National Monument, and 518 acres within the five sites managed by the BLM.

The following description is largely summarized from The World Heritage nomination (USA 1987).

The inclusion of Aztec Ruins and the BLM managed sites was done to recognize that the Chacoan culture and its remains were not confined to Chaco Canyon proper and they illustrate the vast extent of the Chaco World in the 10th through the 12th centuries. A complex landscape of emblematic monumental architecture is interconnected by a network of constructed road alignments, portions of which are protected within the five BLM Chaco communities. Chaco Culture NHP has been identified as the center of a complex prehistoric culture that administered a socioeconomic and religious network of widespread outlying communities.

Chacoans are distinguished as a sub group within the prehistoric Anasazi culture. Distinctions of subgroups within a culture rely on slight variations in life style, material culture and technology. However, slight variations are not what characterize the Chaco Anasazi. Their deviations are of considerable scope and magnitude.

The structures in Chaco Culture are the most outstanding examples of the communities that were built during the 10th through the 12th centuries. Chaco Canyon with 2,800 archaeological sites including 795 prehistoric structures represents the nucleus of the Chaco culture. The structure of the prehistoric Chaco Canyon society is not exactly known. However there is evidence to indicate that it supported positions of high social status and that the economy involved the redistribution of resources among outlying communities, as well as possible pilgrimages of large numbers of people to the central canyon area.

The development of the Chaco phenomenon in the canyon began as early as AD 900 with the construction of large masonry structures. Eventually the system comprised scores of outlying communities, encompassing most of northwestern New Mexico and extending across the Colorado Plateau into Arizona, southeast Utah and southwest Colorado. After the basic network became formalized, the people enjoyed approximately 150 years of the system's success before it collapsed, resulting in the ultimate extinction of the Chacoan adaptation soon after AD 1150.

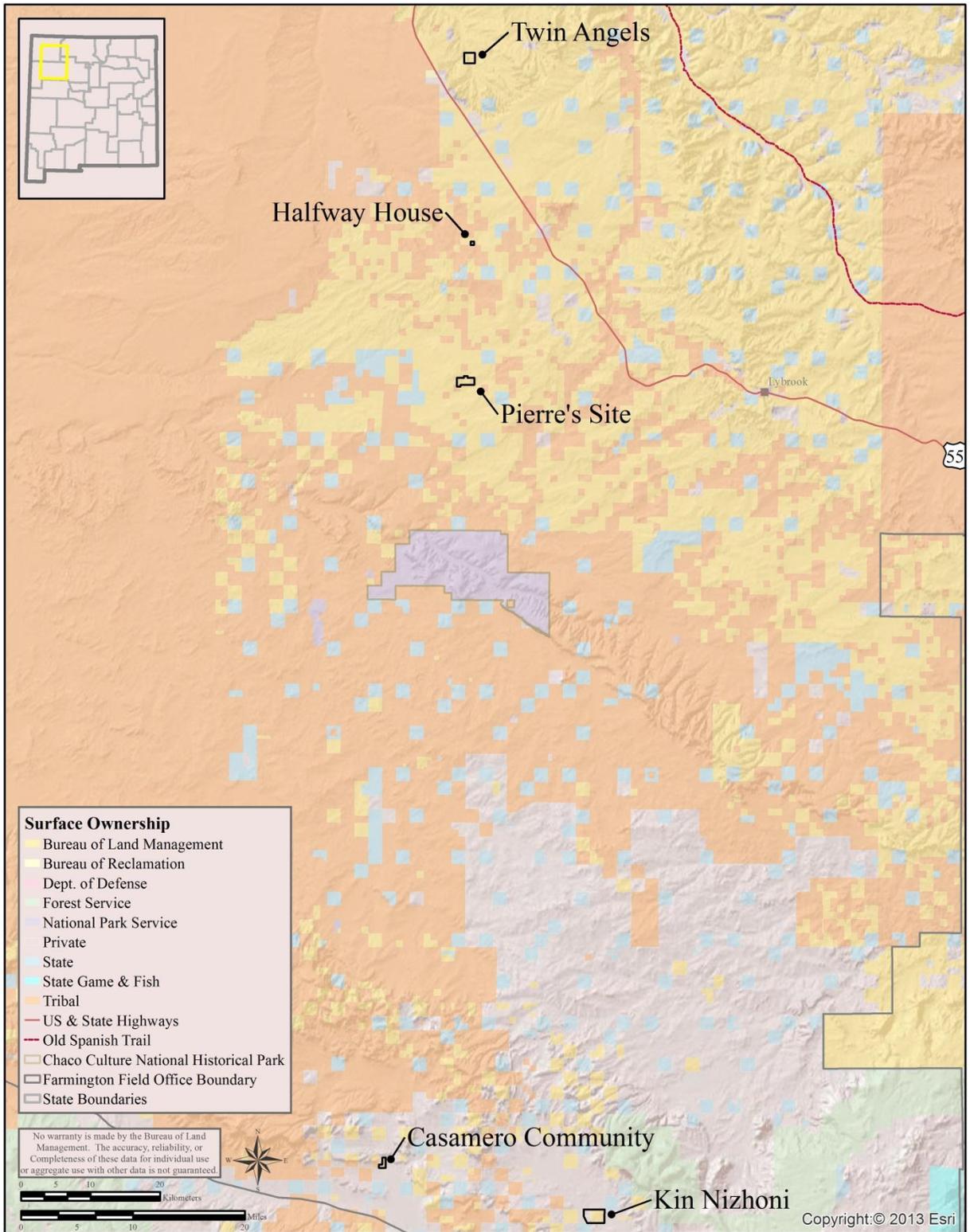
The scale of effort depicted in almost all Chacoan features surpasses anything achieved by their contemporary neighbors. At the very least, Chaco is a remarkable example of early massive pueblo architecture. The scale and planning of these buildings, which is most evident in the geometry and symmetry of their plan or layout, and labor investment, is unique in the Southwest. The buildings preserved at Chaco Canyon are by far the earliest examples of the modern Pueblo Indian building tradition: terraced room blocks massed around plazas, with central kivas. This concept continues over 1,000 years later in the modern pueblos.

The Chaco road system is specifically named in the World Heritage statement of significance as a vital aspect of its universal value, Portions of the roads are within the boundaries of Chaco Culture NHP, including sections of the North Road at Pierre's Site and Halfway House. Most of the North Road and other road alignments are outside the World Heritage boundaries but those roads contribute to the outstanding universal value of The World Heritage sites.

What was derived from Chaco was the ability to organize and manage highly dispersed resources and to control the cultural values of others. Chaco was not merely an influence over a span of time; it dominated and altered the traditional social, economic, and religious practices over a large area in a marginal environment.

The BLM-managed World Heritage Sites were designated as ACECs in the 2003 Farmington RMP (Figure 9). According to BLM Manual 1613, Areas of Critical Environmental Concern (BLM 1988), "ACEC designations highlight areas where special management attention is needed to protect, and prevent irreparable damage to, important historic, cultural, and scenic values... The ACEC designation indicates to the public that the BLM recognizes that an area has significant values and has established special management measures to protect those values" (.02). Boundaries are drawn to include all areas necessary to protect the relevant and important values of the ACEC. For example, the boundary of the ACEC would be drawn large enough to encompass the area that required special management for the setting of the cultural values present.

Figure 9. BLM-Managed World Heritage Sites



3.2. Oil and Gas Development

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 coal-bed methane (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 16,500 active Federal wells in the New Mexico portion of the San Juan Basin. 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).

3.3. 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.

3.3.1. Recreation Areas

The 2003 Farmington RMP identified areas to be managed for the benefit of recreation. These areas are often referred to as Special Recreation Management Areas (SRMAs). SRMAs are areas that have a significant identifiable customer demand for structured recreation. The rationale for identifying an SRMA is that the area has to have an identifiable recreation-tourism market demand requiring structured (i.e., planned) recreation management that targets a particular activity to produce specific recreation experiences and desired outcomes. The use of the term significant implies that a specific type of outcome is being sought, including desired experiences and benefits and excluding undesired negative outcomes that are associated with specific recreation. The use of the term structured implies that the BLM and partners intend to produce this predetermined specific set of recreation opportunity outcomes.

SRMAs are identified when the BLM and partners are able to:

- Identify recreation-tourism markets (market niche),
- Identify activities, experiences, and outcome opportunities,
- Maintain or improve the natural resource recreation setting character (i.e., physical, social, and operational),
- Perform necessary implementation actions.

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

3.3.2. Undesignated Areas

Areas not managed for recreation are those that have intrinsic recreational value (i.e., open space), but have no specific recreation management needs or future desired outcomes. These are also areas, where recreational use may be incompatible with other land uses, such as industrialized oil fields. The management associated with these areas is restricted to custodial actions. Management for these areas uses the minimum implementation actions necessary to proactively respond to stewardship needs associated with recreation-tourism activities. Unless specifically prohibited, recreation activities can and do occur in areas that are not specifically managed for recreation.

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, all-terrain vehicles (ATVs), utility-terrain vehicles (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.

The areas surrounding Chaco Canyon National Historic Park are managed as undesignated areas within the FFO. The majority of visitors enjoy dispersed recreation opportunities such as camping, hiking and sightseeing to explore the outlying NPS great houses of Pueblo Pintado, Kin Bineola, and Kin Ya'a, and BLM-managed great houses such as Twin Angels, Pierre's Ruin, and Casamero. Recreation opportunity is transitional in nature with most visitors staying less than two days in the 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 WSA under review for wilderness designation. Both of these areas provide unconfined, non-motorized recreation experiences.

3.3.3. Chaco Culture NHP

Chaco Culture NHP receives approximately 40,000 visitors a year. Recreational activities within Chaco Culture NHP include viewing prehistoric ruins, visiting a museum, camping, hiking, and star gazing. The interpretive program of the NHP consists of ranger- and self-guided tours of some of the major ruins, a wayside exhibit, and daily availability of a park interpreter (USA 1987). Four backcountry hiking trails lead visitors to remote Chacoan sites, passing ancient roads, petroglyphs, stairways, and spectacular overlooks of the valley (NPS 2013b).

Of the approximately 4,000 archaeological sites identified within the Chaco Culture NHP boundaries, 37 are open to visitors. These are located on the loop road and on some of the 19 miles of backcountry trails. Trails in the backcountry area and the mesa tops are rough and not easily discerned (de la Torre, et al., 2003).

Chaco Culture NHP strives to provide visitors with a quality experience. The 1995 Chaco Culture NHP Resource Management Plan and the 2002 draft Resource Management Plan identify a quality visitor experience as:

- Sweeping, unimpaired views
- An uncrowded park
- Appreciation of ancient sites with minimal distractions
- Clear air
- No intrusions of man-made noise or light (at night)
- Clean water and adequate facilities
- Access to a ranger for personal interpretation (de la Torre, 2002).

The University of Montana conducted a visitor survey for Chaco Culture NHP in 2009. Important findings from that survey include:

- Ninety percent of visitors surveyed were from the U.S.

- Seventy-five percent of visitors were day visitors with the average visit lasting five hours. The average length of stay for the 25% of visitors that stayed more than one day was 2.2 days.
- On average, park visitors stop at six sites, including the Visitor’s Center, while in CCNHP. Nearly all visitors stopped at the Visitor’s Center and Pueblo Bonito (97% and 98%, respectively). The next most popular sites were Chetro Ketl (69%), Hungo Pavi (52%), Una Vida (42%), and Casa Rinconada (41%) (Freimund and Dalenberg, 2010).

The visitor survey identified a variety of reasons that people visited Chaco Culture NHP.

A desire to learn and curiosity about the park were the most highly ranked reasons for visiting the park and were important to almost all visitors. A majority of visitors felt that “getting away”, “being with family” and “get away from crowds” were of neutral importance but these reasons for visiting the park were extremely important to some visitors and not important to some visitors. Being alone, developing spirituality and experiencing night skies were important to a smaller group of visitors and unimportant to many (Freimund and Dalenberg, 2010).

Visitors also identified what they believed to be the purpose of Chaco Culture NHP. “Results suggest that visitors view preserving the cultural and historic resources as the most important values of the park (Table 19). Values associated with escape from society, tourism, recreation and socialization were seen as least important in what makes Chaco National Historical Park a valuable place” (Freimund and Dalenberg, 2010).

Visitors identified aspects that added to or detracted from their experience at Chaco Culture NHP. Chaco Culture NHP’s remoteness and ability to explore the features of the park added to their experience. Encountering large groups or disruptive visitor behavior, especially noise, and access restrictions detracted from the experience (Freimund and Dalenberg, 2010).

In 2011, Chaco Culture NHP identified several key observation points (KOPs) from which visitors could overlook BLM-managed lands (Figure 10). Table 6 displays registered trail user counts from three of the backcountry trails that contained KOPs.

Table 6. Trail User Counts for KOPs in Chaco Culture NHP

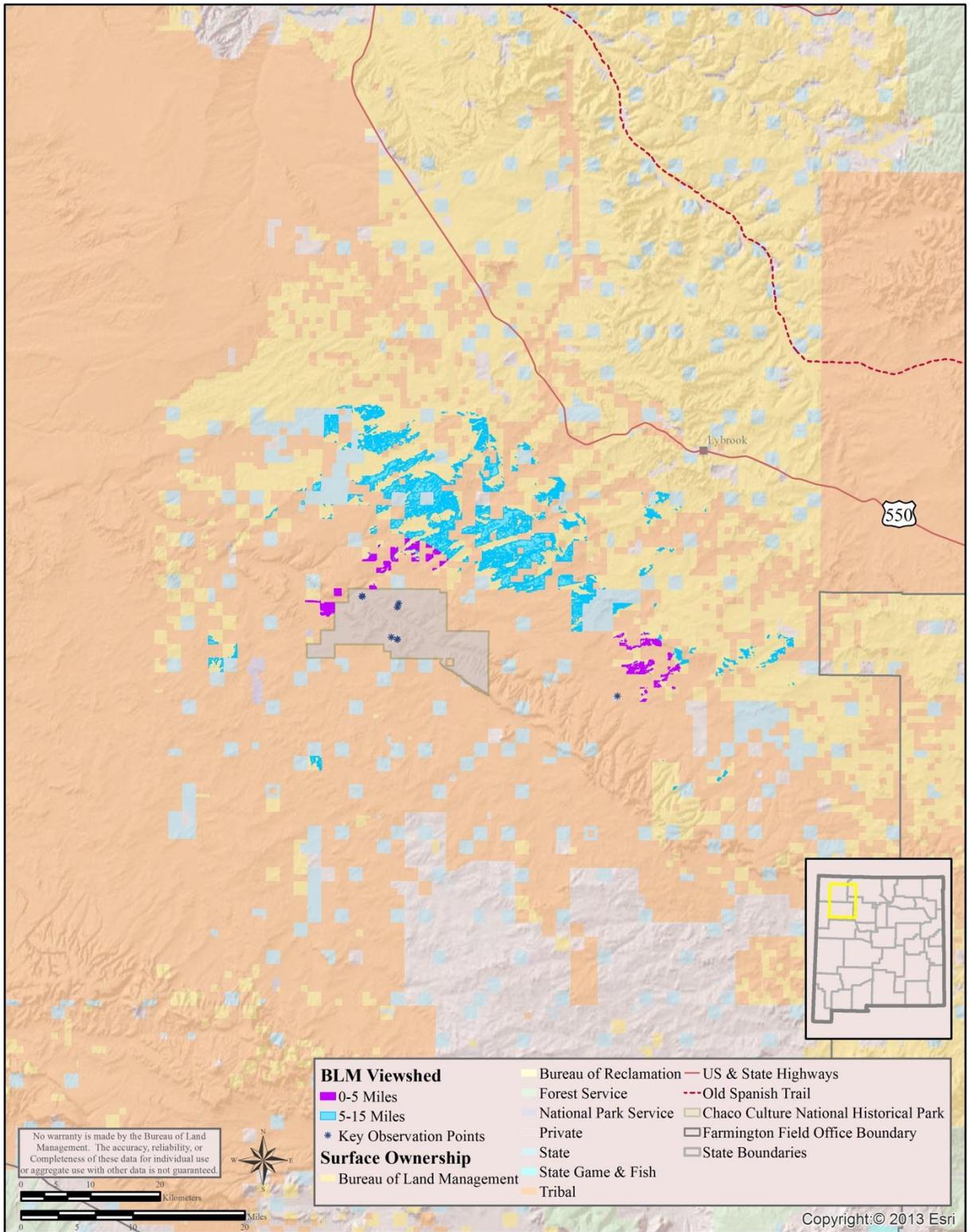
Trail	KOP	2011	2012
Penasco Blanco	Penasco Blanco	2,497	2,822
Pueblo Alto	Pueblo Alto	8,315	7,989
South Mesa Trail	Tsin Kletsin	1,468	1,565
Total		12,280	12,376

Source: Von Haden, 2013

A 1994 visitor survey ranked the values of the park as education, scenery, solitude, natural setting, and calm atmosphere as the most appreciated values (de la Torre, 2002). According to a case study for CCHNP:

Some of the items in the list above have importance beyond the aesthetic experience. For example, sweeping, unimpacted vistas are inextricably tied to ancient Chacoan roads in lands outside the Park and to the traditional Native American views from the top of mesas that encompass the four sacred mountains of the Navajos. The loss of these vistas (whether from development or pollution) would impinge not only on Chaco’s aesthetic value but also on the spiritual value of the site for some stakeholders, as well as on the educational value of the CCNHS to provide visual evidence of the Chaco Phenomenon (de la Torre, 2002).

Figure 10. Viewsheds from KOPs in Chaco Culture NHP



3.4. Land Use Authorizations

A variety of land use authorizations have been authorized in the FFO (Table 7). 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 7. 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.

3.5. National Historic Trails

The National Trails System Act of 1968 provided the means for instituting a nationwide recreational, scenic, and historic trails system that “follow[s] as closely as possible and practicable the original trails or routes of travel of national historic significance.” Under this act, the BLM is tasked with managing national historic trail segments on BLM-administered land. The identification and documentation of these trail segments is a BLM management and preservation obligation. In order to collect the data necessary for responsible administration, the NHT Inventory project was developed.

The Old Spanish Trail NHT is one of the historical-period transportation routes included in the NHT Inventory project. Several sections of the OSNHT and New Mexico were selected for inventory, because they had a high potential to convey the trail’s nineteenth-century historical setting and qualities. Three high-potential route segments, called Largo Canyon, El Vado South, and Taos Overlook, were identified in northern New Mexico (Provenzali 2011). The Largo section is located within the BLM FFO.

On November 6, 1829, Santa Fe merchant Antonio Armijo led 30-60 men and pack mules on an 86 day journey from Abiquiu to San Gabriel Mission. He left San Gabriel Mission on March 1, 1830 arriving home on April 25, 1830, having completed the first round trip trade caravan between New Mexico and California (Hafen and Armijo 1947). Armijo apparently used this route only once, and subsequently routes farther to the north took precedence. The Old Spanish Trail is a term used largely after the period of significant use (1829-1847) and the name is attributed to John C. Fremont in the 1840s. During the period of significance the trail went by the name *El Camino de California* and *El Camino de Nuevo Mexico* (NPS 2001). After the last recorded Mexican pack train passed between New Mexico and California in 1848, western portions of the Old Spanish Trail were incorporated into local transportation routes and into the Mormon Road between Salt Lake City and southern California (Hafen and Hafen 1993). Mormon freighters who used the Old Spanish Trail after 1848 continued to improve on the original route, creating a number of alternative routes that used a general corridor. Some of the current paved and unpaved roads may have been improvements on the original Old Spanish Trail route. The Old Spanish Trail was designated in 2002 as a National Historic Trail.

The Largo Canyon segment is the longest of the high-potential route segments of the Old Spanish Trail NHT identified in New Mexico. The segment extends 31.2 miles along Cañon Largo from the San Juan River east of Blanco to the convergence of the canyon with the Cañada Larga ravine. From this point, the trail turns west, following the Cañada Larga streambed for approximately 2.5 miles before entering the Jicarilla Apache Indian Reservation. The 1895 USGS New Mexico Largo quadrangle topographic map depicts several routes branching off from the main trail along Largo Canyon.

The Largo Canyon segment of the trail was originally a pack trail and not a wagon road, so the possibility of finding unaltered mule-pack trail segments was remote. The route's location is in an area with a long history of activities such as ranching and energy development thus the trail segments inventoried in this area are characterized by extensive cultural modifications. The terrain characteristics of the Largo Canyon analysis unit were also found not to be favorable for the preservation of evidence of the historical trail. The regional topography is composed of sandstone-capped mesas dissected by deep, narrow canyons and arroyos. Weathering of shale and sandstone has resulted in a highly erodible landscape and an abundant sediment supply (Matherne 2006). Regular weathering processes and human activities have subjected the canyon's alluvial channels to constant changes of location and direction, razing many indications of original trail elements and characteristics.

Armijo's journal (Hafen and Armijo 1947) indicates he entered Largo Canyon on November 12 and reached the San Juan River, presumably at the mouth of Largo Canyon on November 15. Nineteen trail segments in Largo Canyon were recorded (Provenzali 2011). These segments all seem to be manifestations of roads depicted on various late 19th-early 20th century General Land Office maps as "Wagon Trail," "Santa Fe and Rio San Juan Road," "Wagon Road from Santa Fe to San Juan River," and "Cañon Largo Road." These trail segments are without doubt part of the historical-period network of trails linking the San Juan River with Abiquiú and Santa Fe. No artifacts, trail traces, or other historical-period features definitively representing Old Spanish Trail segments dating to the period of significance or contemporaneous manifestations of cultural activity were observed near these segments. The only historical-period site located during the survey of the Largo Canyon segment was LA 133012 (Old Rock Ranch), also known as the Nestor Martin Homestead. The 1882 General Land Office maps show the ranch located on the main Largo Canyon road. The site is eligible for listing in the National Register of Historic Places (NRHP).

The pedestrian survey conducted along the Congressional alignment in the Largo Canyon area recorded 19 probable trail segments varying between conditions NHT III (location verified with little remaining evidence), NHT IV (location verified and permanently altered), and NHT V (location approximate or not verified). Trace Trail Segments 40086, 40088, and 40095 were verified by evaluating their current location and condition in comparison to the historical-period alignments and were classified as condition NHT III, as the trail traces are insignificant. Trace Trail Segments 40080, 40081, 40098, and 40101 were verified by evaluating their current location and condition in comparison to the known historical-period alignments. They were classified as condition NHT IV, as no associated archaeological evidence was found, and modern activity (e.g., construction, grading, paving) has permanently altered the trail's historical appearance.

Trace Trail Segments 40104, 40107, 40110, 40113, 40117, 40120, 40123, 40126, 40129, 40133, 40135, and 40210 were evaluated for their current location and condition in comparison to the historical-period alignments and were classified as condition NHT V. The location of these trail traces is unverifiable; historical accounts place the trail within the canyon walls, but highways, structures, ranching activities, and utility corridors have destroyed any evidence of the original trail. Therefore, only an approximation of the route location can be identified. The high number of identified trail traces is to some extent misleading, as it occurred because of the pre-established recording methodology (AECOM 2010). Only trail traces on BLM-administered land were recorded, so continuous segments that traversed BLM- and non-BLM-administered lands were recorded as multiple trail traces.

The Comprehensive Management Plan for the trail is still being developed by NPS and BLM and is currently unavailable.

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 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) than 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 designating 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 reclaims or restores a visually altered landscape back to its natural character by improving vegetation, or removing structures, or other means.

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 36,000 acres, scenic quality rating B was given to 406,000 acres, and scenic quality rating C was given to 934,000 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 176,000 acres, a medium sensitivity rating was given to 695,000 acres, and a low sensitivity rating was given to 550,000 acres on BLM-managed lands.

Finally, if an area was inventoried at VRI Class I, but the proposed management is VRM Class II, the potential for a decrease in the visual quality, and thus VRI Class, exists. The 2009 VRI for the planning area, as updated in 2013, identified 45,000 acres as VRI Class I, 103,000 acres as VRI Class II, 323,000 acres as VRI Class III, and 949,000 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.

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, this data cannot serve as a basis from which to evaluate how visual resources have changed at the landscape-level due to past actions.

Because all actions on BLM-managed lands will comply with the designated VRM Class, other present and reasonably foreseeable actions for the planning area involve those actions that occur on non-BLM managed or owned lands. The 2009 VRI, as updated in 2013, took into account the visual resources on non-BLM managed and owned lands, with the exception of tribal lands and Chaco Culture NHP. Table 10 identifies the scenic quality ratings for lands in the planning area. Table 9 identifies sensitivity ratings for lands in the planning area. Table 10 identifies VRI Classes for lands in the planning area.

Table 8. Scenic Quality Ratings for Lands in the Planning Area in 2009

Land Status	Scenic Quality Rating		
	A	B	C
BLM-Managed Lands ¹	36,000	406,000	934,000
Non-BLM Managed Lands ²	20,000	1,154,000	1,516,000
Total	56,000	1,560,000	2,450,000

¹ Scenic Quality Ratings were not conducted for the Bisti/De-Na-Zin Wilderness (45,000 acres) or Ah-shi-sle-pah WSA (7,000 acres)
² Excluding tribal lands and Chaco Culture NHP.

Table 9. Sensitivity Ratings for Lands in the Planning Area in 2013

Land Status	Sensitivity Rating		
	High	Medium	Low
BLM-Managed Lands	176,000	695,000	550,000
Non-BLM Managed Lands ¹	235,000	1,289,000	1,172,000
Total	411,000	1,984,000	1,722,000

¹ Excluding tribal lands and Chaco Culture NHP.

Table 10. VRI Classes for Lands in the Planning Area in 2013

Land Status	VRI I	VRI II	VRI III	VRI IV
BLM-Managed Lands	45,000	103,000	323,000	949,000
Non-BLM Managed Lands ¹	7,000	151,000	1,025,000	1,514,000
Total	52,000	254,000	1,348,000	2,463,000

¹ Excluding tribal lands and Chaco Culture NHP.

For the analysis of cumulative impacts on visual resources, it was assumed that non-BLM managed lands would be managed by the landowner for use; this management would be similar to VRM Class IV. Tribal

lands and Chaco Culture NHP were excluded from the analysis because these lands were not included in the VRI. The analysis displays in the increase in the number of acres of lands managed as VRM Class IV once non-BLM managed lands are included, and discusses the percentage of lands managed by BLM versus those managed by other land managers to display which management is having the greatest impact.

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 11; Figure 11).

Table 11. 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	222,000	32,000
VRM Class II/III	0	10,000	34,000
VRM Class III	0	36,000	71,000
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
Total	42,000	626,000	956,000

Under the No Action Alternative, 28% 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; 12% of these lands would be managed in VRM Class II, allowing a low level of change (Table 12; Figure 12). The remainder of the lands with a high level of public concern for scenic quality (60%) would be managed in a VRM Class that would allow for a moderate to high level of change.

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

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	53,000	2,000	600
VRM Class II	23,000	25,000	11,000
VRM Class II/III	10,000	27,000	7,000
VRM Class III	6,000	32,000	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	60,000	583,000	430,000
VRM Class IV	10,000	10,000	21,000
Total	192,000	710,000	566,600

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 13; Figure 16). With regard to VRI Class II lands, 3% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 19% 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, 25%

Figure 11. VRM Classes for Lands with a Scenic Quality Rating A in the No Action Alternative

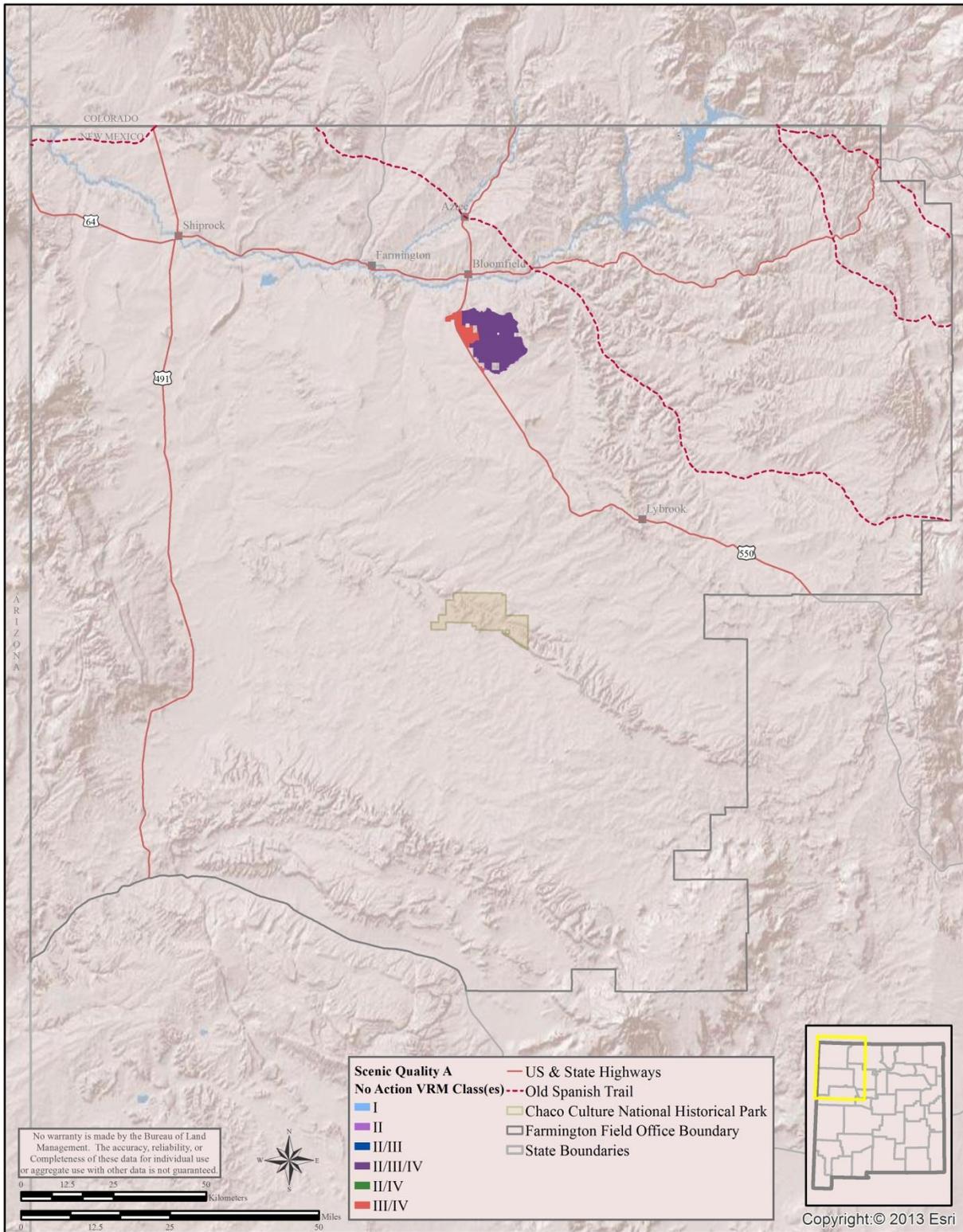


Figure 12. VRM Classes for Lands with a High Sensitivity Rating in the No Action Alternative

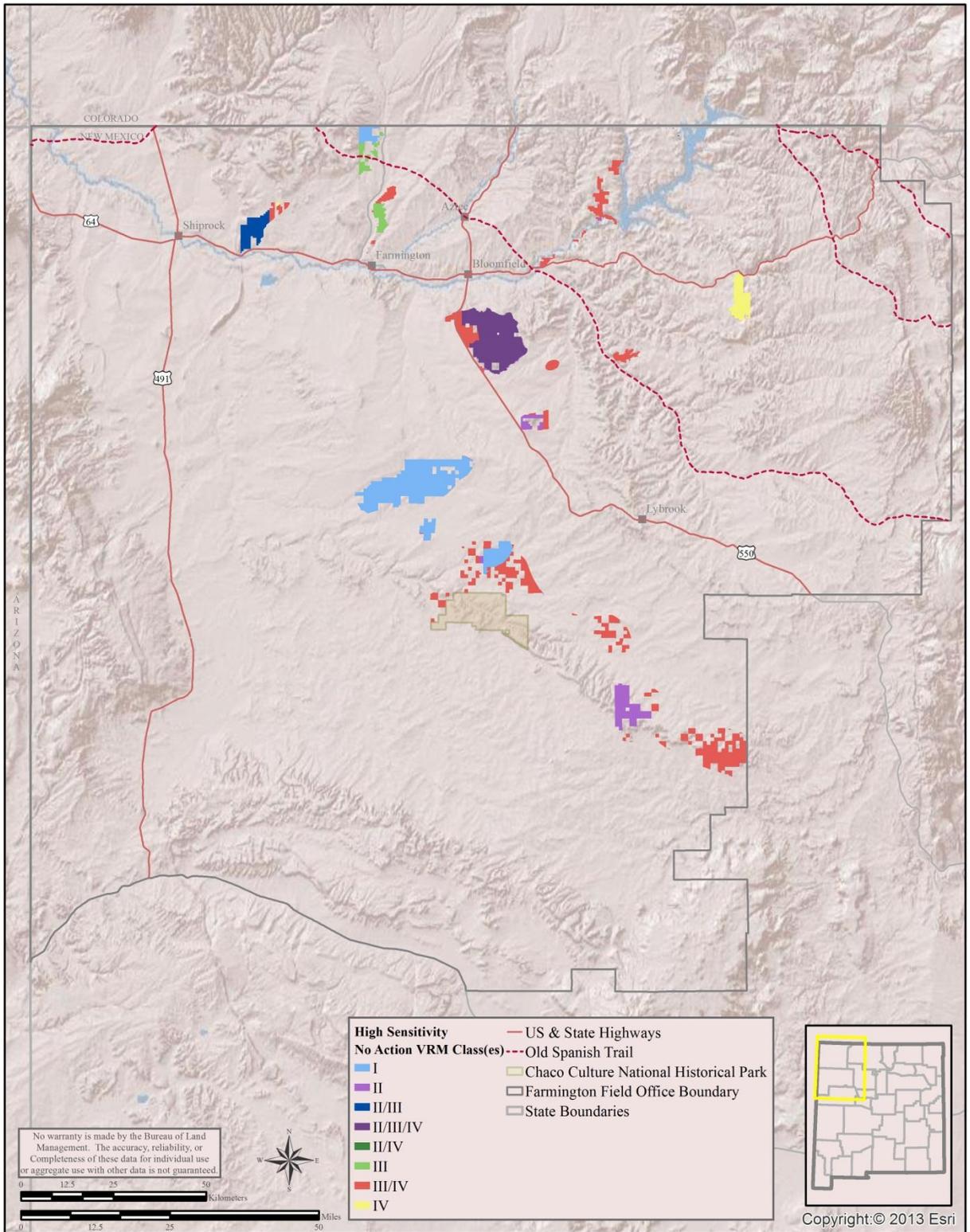
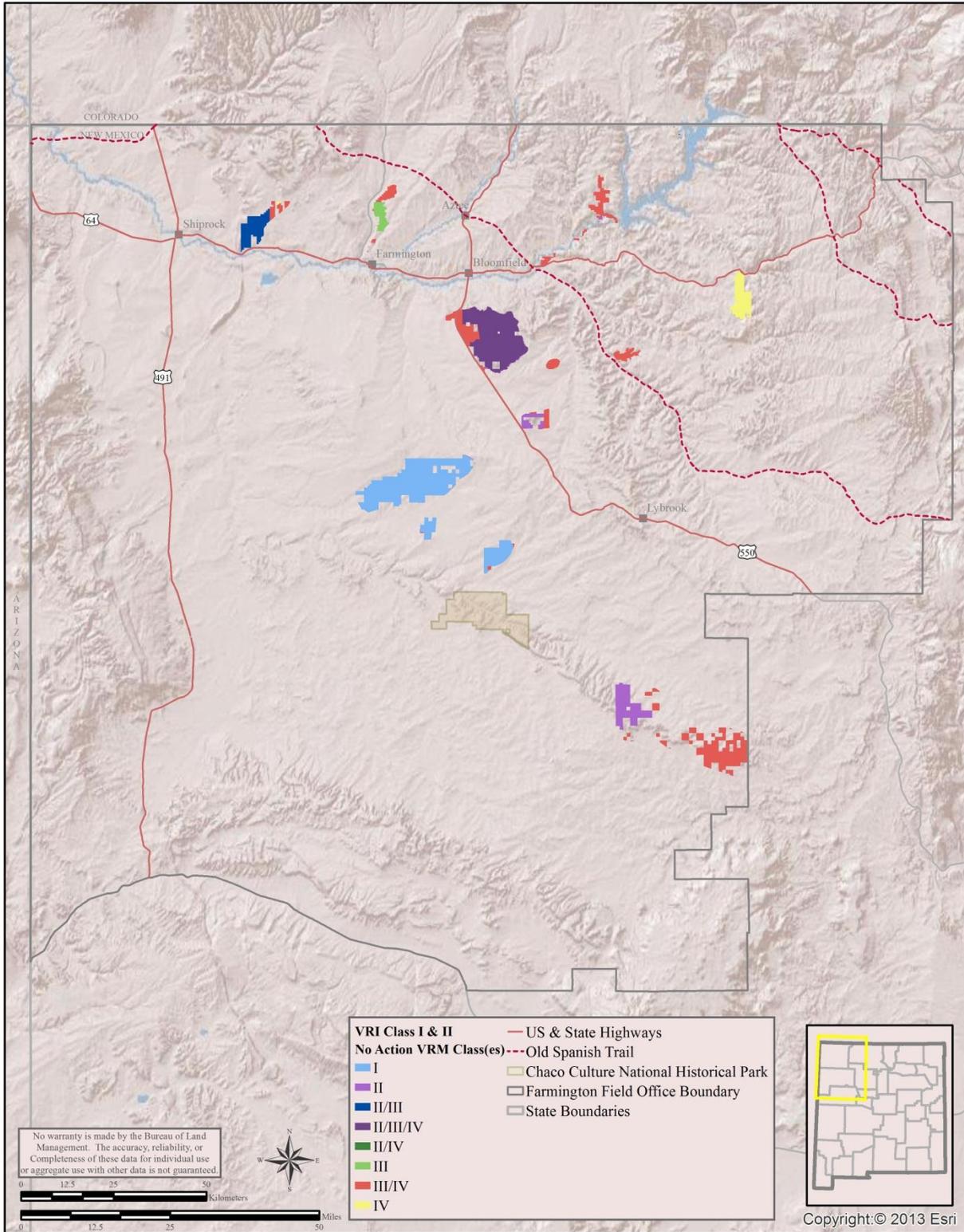


Figure 13. VRM Classes for VRI Class I and II Lands in the No Action Alternative



would be in Class II/III/IV resulting in low to high level of change, 3% would be in VRM Class III potentially resulting in only partially retaining the character of those lands, 33% would be in VRM Class III/IV, potentially resulting in partially retaining up to a high level of change to those acres, and 8% would be in VRM Class IV potentially resulting in a high level of change to those acres.

Table 13. 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	6,000	1,000
VRM Class II	0	23,000	6,000	31,000
VRM Class II/III	0	10,000	0	34,000
VRM Class III	0	3,000	26,000	77,000
VRM Class II/IV	0	0	0	41,000
VRM Class II/III/IV	0	30,000	4,000	13,000
VRM Class III/IV	0	39,000	284,000	750,000
VRM Class IV	0	10,000	10,000	21,000
Total	45,000	118,000	336,000	968,000

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

Direct and Indirect Impacts

Under Alternative A, 17% 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; 83% 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 14; Figure 14).

Table 14. VRM Classes by Scenic Quality Rating in Alternative A (acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	4,000	1,000
VRM Class II	6,000	31,000	46,000
VRM Class III	24,000	90,000	295,000
VRM Class IV	6,000	280,000	591,000
Total	36,000	405,000	933,000

Under Alternative A, 27% 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; 25% of these lands would be managed in VRM Class II, allowing a low level of change (Table 15; Figure 15). 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.

Figure 14. VRM Classes for Lands with a Scenic Quality Rating A in Alternative A

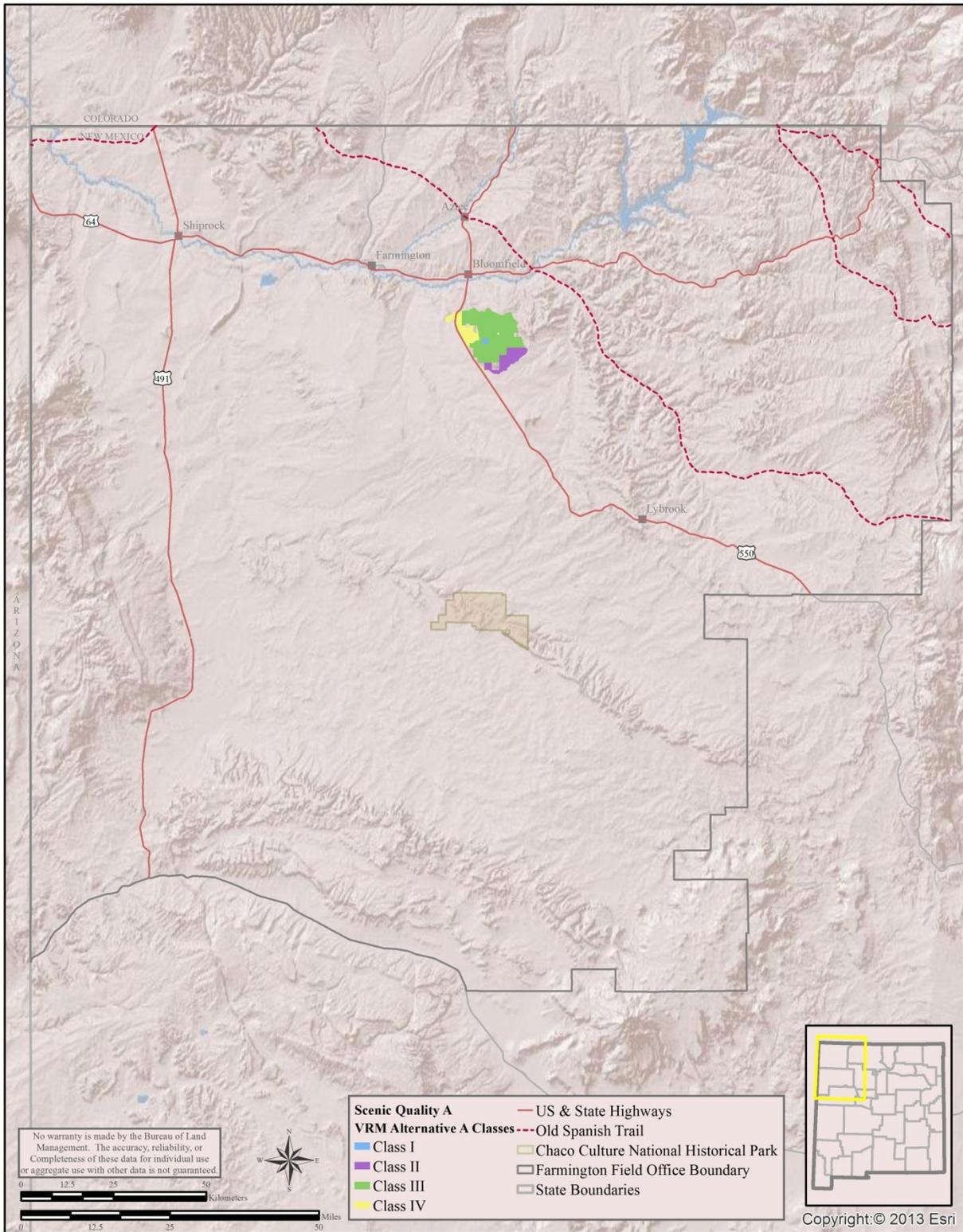


Figure 15. VRM Classes for Lands with a High Sensitivity Rating in Alternative A

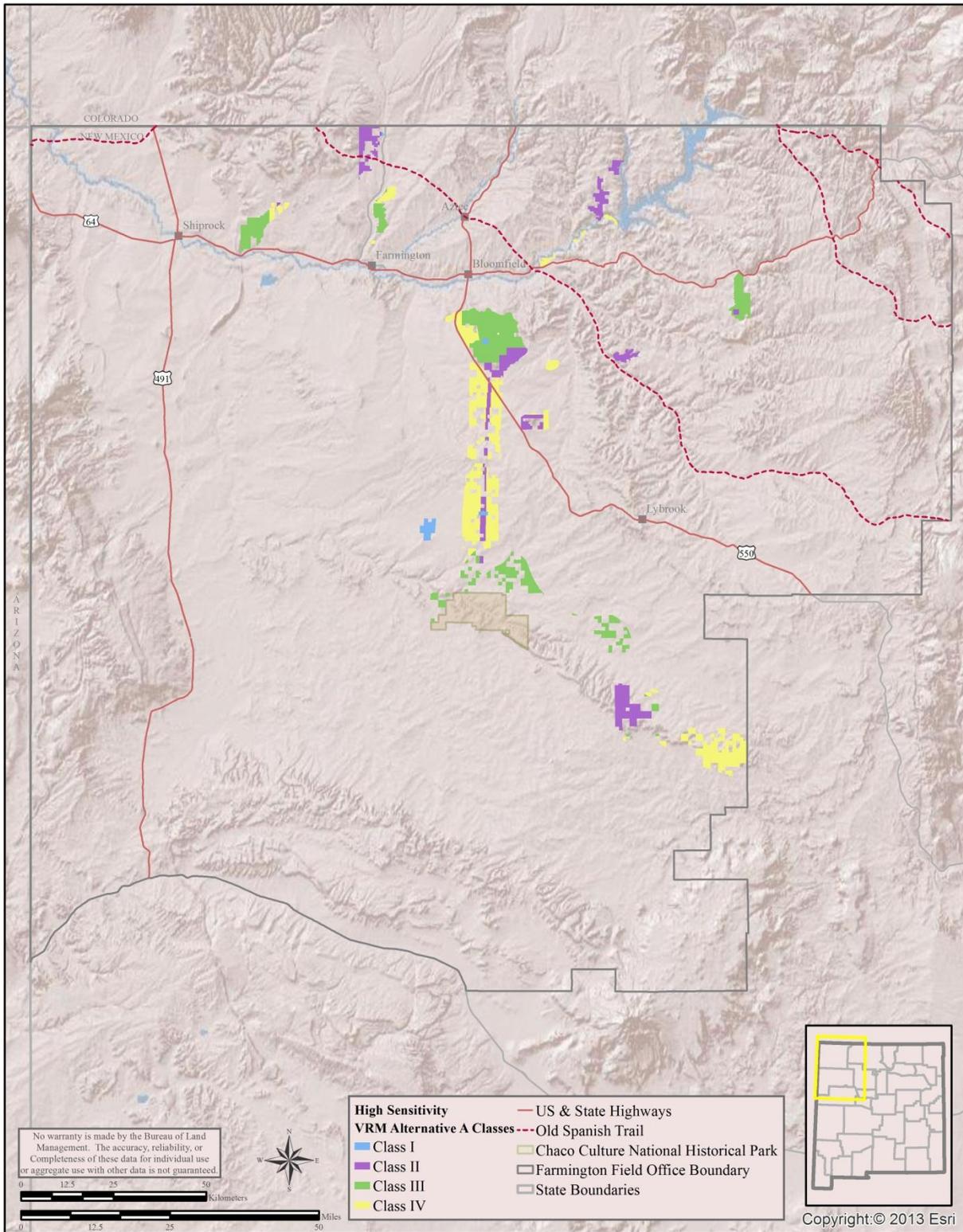


Table 15. VRM Classes by Sensitivity Rating in Alternative A (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	48,000	2,000	1,000
VRM Class II	32,000	21,000	28,000
VRM Class III	61,000	157,000	192,000
VRM Class IV	34,000	515,000	328,000
Total	176,000	695,000	549,000

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 16; Figure 16). With regard to VRI Class II lands, 3% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 24% would be in VRM Class II, allowing a low level of change; 42% would be in VRM Class III, potentially resulting in only partially retaining the character of those lands; and 31% would be in VRM Class IV, potentially resulting in a high level of change to those acres.

Table 16. VRM Classes by VRI Classes in Alternative A (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	24,000	20,000	38,000
VRM Class III	0	43,000	87,000	280,000
VRM Class IV	0	32,000	215,000	629,000
Total	45,000	102,000	324,000	948,000

Cumulative Impacts

Under Alternative A, all of the lands with a scenic quality rating of A that are managed in VRM Classes I, II, and III are managed by the BLM. Twenty-three percent of lands with a scenic quality rating of A managed as VRM Class IV are managed by BLM, while 77% are not managed by the BLM (Table 17). With regard to those lands, management on non-BLM managed lands has more impact to visual resources than management on BLM-managed lands.

Table 17. VRM Classes by Scenic Quality Rating for All Inventoried Lands in the Planning Area in Alternative A (acres)

VRM Class	Land Status	Scenic Quality Rating		
		A	B	C
VRM Class I	BLM-Managed Lands	0	4,000	1,000
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	6,000	31,000	46,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	24,000	90,000	295,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	6,000	280,000	591,000
	Non-BLM Managed Lands	20,000	1,154,000	1,516,000
Total		56,000	1,559,000	2,450,000

With regard to sensitivity, 13% of lands with a high level of public concern for scenic quality managed as VRM Class IV are managed by BLM (Table 18). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Figure 16. VRM Classes for VRI Class I and II Lands in Alternative A

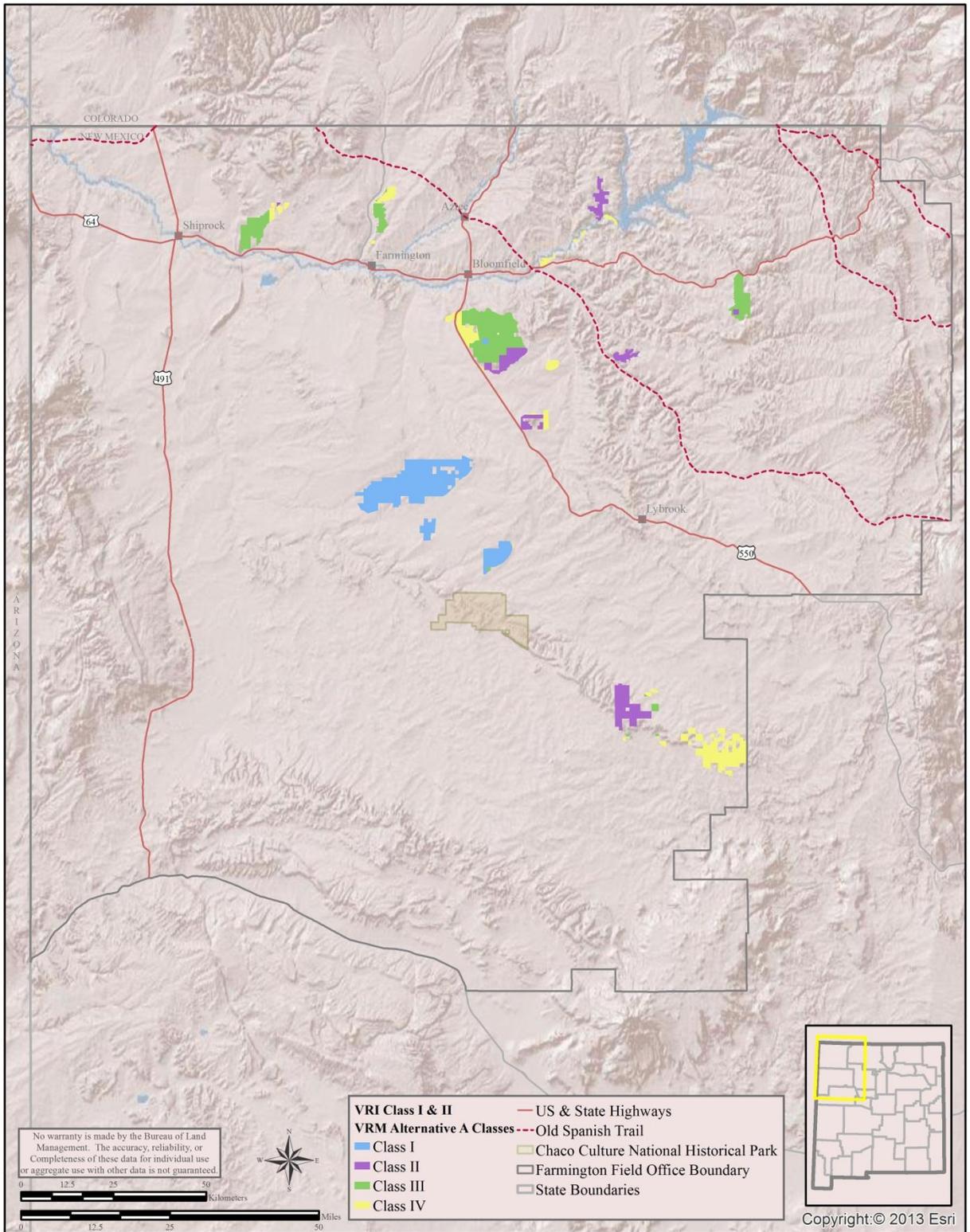


Table 18. VRM Classes by Sensitivity Rating in Alternative A (acres)

VRM Class	Land Status	Sensitivity Rating		
		High	Medium	Low
VRM Class I	BLM-Managed Lands	48,000	2,000	1,000
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	32,000	21,000	28,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	61,000	157,000	192,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	34,000	515,000	328,000
	Non-BLM Managed Lands	235,000	1,289,000	1,172,000
Total		410,000	1,984,000	1,721,000

Under Alternative A, all of the VRI Class I lands managed by the BLM (87% of VRI Class I lands) are managed as VRM Class I (Table 19). For VRI Class I lands, none of the lands managed in VRM Class IV (13% of VRI Class I lands) are managed by the BLM. For VRI Class II lands, 13% of those managed in VRM Class IV are managed by the BLM; 87% 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 19. VRM Classes by VRI Classes for All Inventoried Lands in the Planning Area in Alternative A (acres)

VRM Class	Land Status	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	BLM-Managed Lands	45,000	3,000	2,000	1,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class II	BLM-Managed Lands	0	24,000	20,000	38,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class III	BLM-Managed Lands	0	43,000	87,000	280,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class IV	BLM-Managed Lands	0	32,000	215,000	629,000
	Non-BLM Managed Lands	7,000	151,000	1025,000	1,514,000
Total		52,000	253,000	1,349,000	2,462,000

4.2.2. Impacts from Alternative B

Direct and Indirect Impacts

Under Alternative B, 16% 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; 83% of these areas would be managed in VRM Class III, potentially allowing for a moderate to high degree of change to the scenic quality (Table 20; Figure 17).

Table 20. 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	116,000	222,000
VRM Class III	30,000	285,000	710,000
VRM Class IV	0	0	0
Total	36,000	405,000	933,000

Under Alternative B, 27% 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; 38% of these lands would be managed in VRM Class II, allowing a low level of change (Table 21; Figure 18). The

Figure 17. VRM Classes for Lands with a Scenic Quality Rating of A in Alternative B

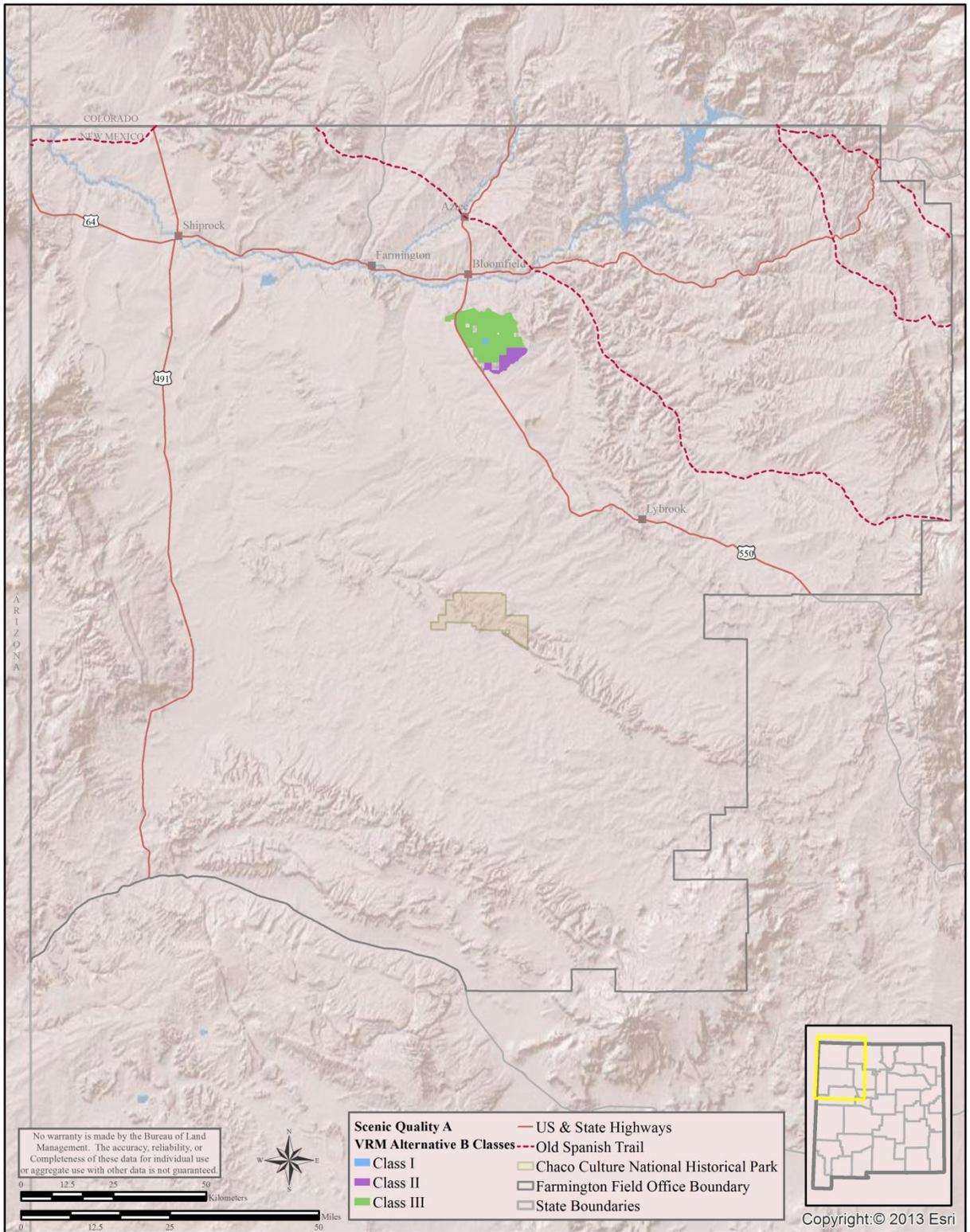
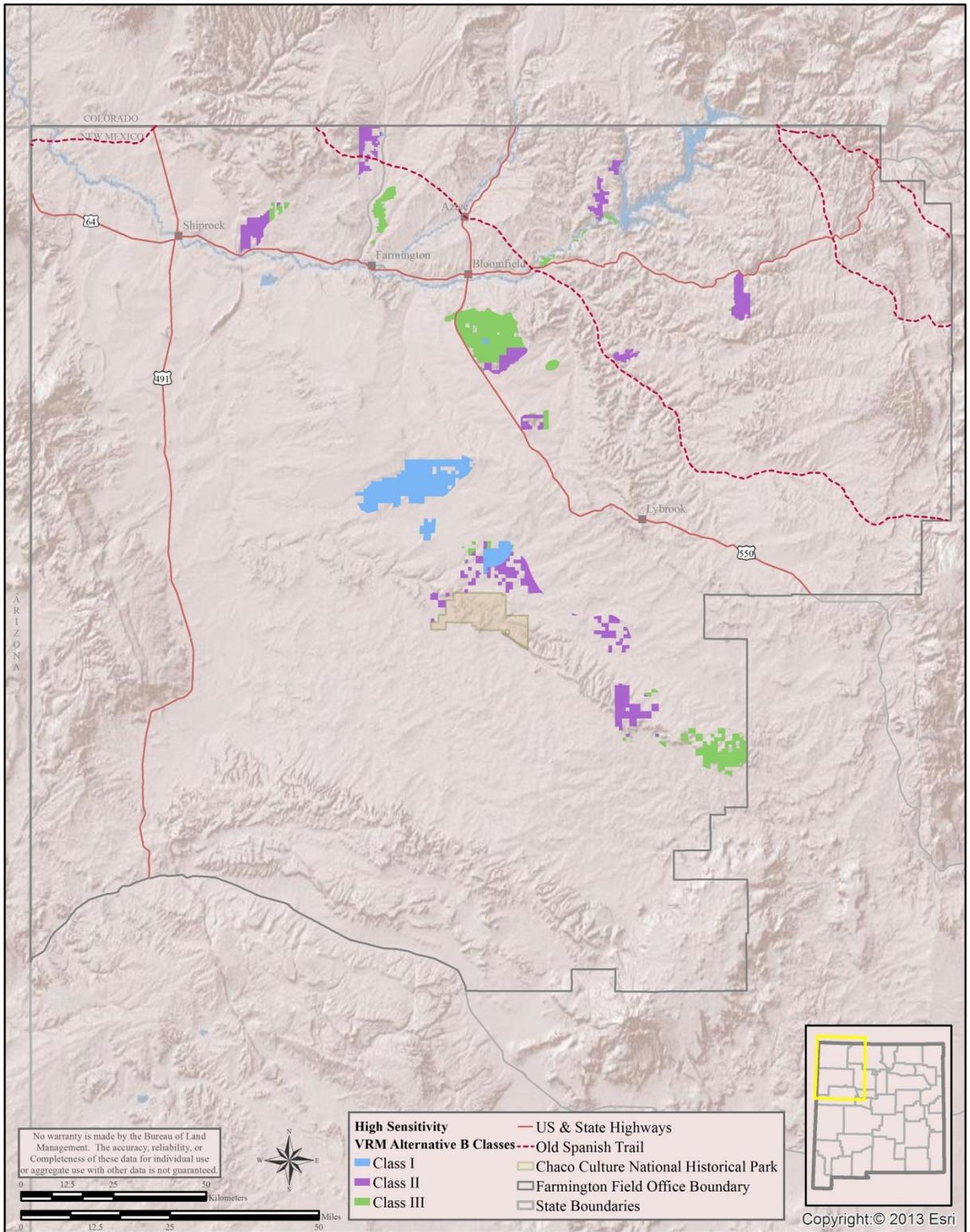


Figure 18. VRM Classes for Lands with a High Sensitivity Rating in Alternative B



remainder of the lands with a high level of public concern for scenic quality (35%) would be managed in a VRM Class that would allow for a moderate level of change.

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

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	48,000	2,000	1,000
VRM Class II	66,000	132,000	146,000
VRM Class III	61,000	561,000	402,000
VRM Class IV	0	0	0
Total	176,000	695,000	549,000

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 22; Figure 19). With regard to VRI Class II lands, 3% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 39% would be in VRM Class II, allowing a low level of change; 58% would be in VRM Class III, potentially resulting in only partially retaining the character of those lands.

Table 22. 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	40,000	98,000	198,000
VRM Class III	0	60,000	224,000	749,000
VRM Class IV	0	0	0	0
Total	45,000	103,000	324,000	949,000

Cumulative Impacts

Under Alternative B, all of the lands with a scenic quality rating of A that are managed in VRM Classes II and III are managed by the BLM. All of the lands with a scenic quality rating of A managed in a VRM Class IV are managed by entities other than BLM (Table 23). With regard lands with a scenic quality rating of A, management on non-BLM managed lands has more impact to visual resources than management on BLM-managed lands.

Table 23. VRM Classes by Scenic Quality Rating for All Inventoried Lands in the Planning Area in Alternative B (acres)

VRM Class	Land Status	Scenic Quality Rating		
		A	B	C
VRM Class I	BLM-Managed Lands	0	4,000	1,000
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	6,000	116,000	222,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	30,000	285,000	710,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	0	0	0
	Non-BLM Managed Lands	20,000	1,154,000	1,516,000
Total		56,000	1,559,000	2,449,000

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 24). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Figure 19. VRM Classes for VRI I and II Lands in Alternative B

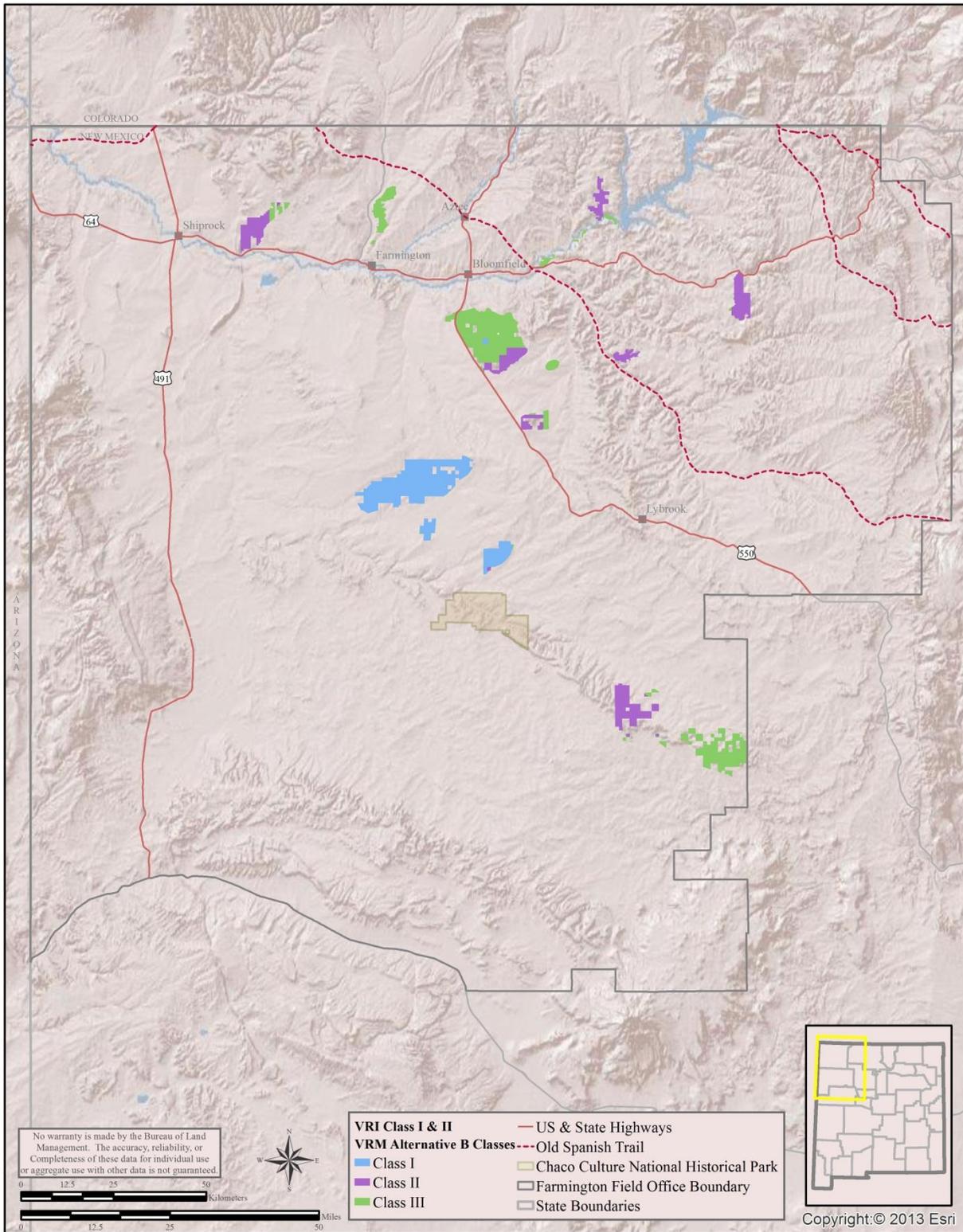


Table 24. VRM Classes by Sensitivity Rating on All Inventoried Lands in the Planning Area in Alternative B (acres)

VRM Class	Land Status	Sensitivity Rating		
		High	Medium	Low
VRM Class I	BLM-Managed Lands	48,000	2,000	1,000
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	66,000	132,000	146,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	61,000	561,000	402,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	0	0	0
	Non-BLM Managed Lands	235,000	1,289,000	1,172,000
Total		410,000	1,984,000	1,721,000

Under Alternative B, all of the VRI Class I lands managed by the BLM (87% of VRI Class I lands) are managed as VRM Class I (Table 19). For VRI Class I lands, none of the lands managed in VRM Class IV (13% of VRI Class I lands) are managed by the BLM. For VRI Class II lands, none of those 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 25. VRM Classes by VRI Classes for All Inventoried Lands in the Planning Area in Alternative B (acres)

VRM Class	Land Status	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	BLM-Managed Lands	45,000	3,000	2,000	1,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class II	BLM-Managed Lands	0	40,000	98,000	198,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class III	BLM-Managed Lands	0	60,000	224,000	749,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class IV	BLM-Managed Lands	0	0	0	0
	Non-BLM Managed Lands	7,000	151,000	1,025,000	1,514,000
Total		52,000	254,000	1,349,000	2,462,000

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 26; Figure 20).

Table 26. 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	97,000	164,000
VRM Class IV	30,000	304,000	768,000
Total	36,000	405,000	933,000

Under Alternative C, 27% 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 27; Figure 21). The remainder of the lands with a high level of public concern for scenic quality (73%) would be managed in a VRM Class that would allow for a moderate to high level of change.

Figure 20. VRM Classes for Lands with a Scenic Quality Rating of A in Alternative C

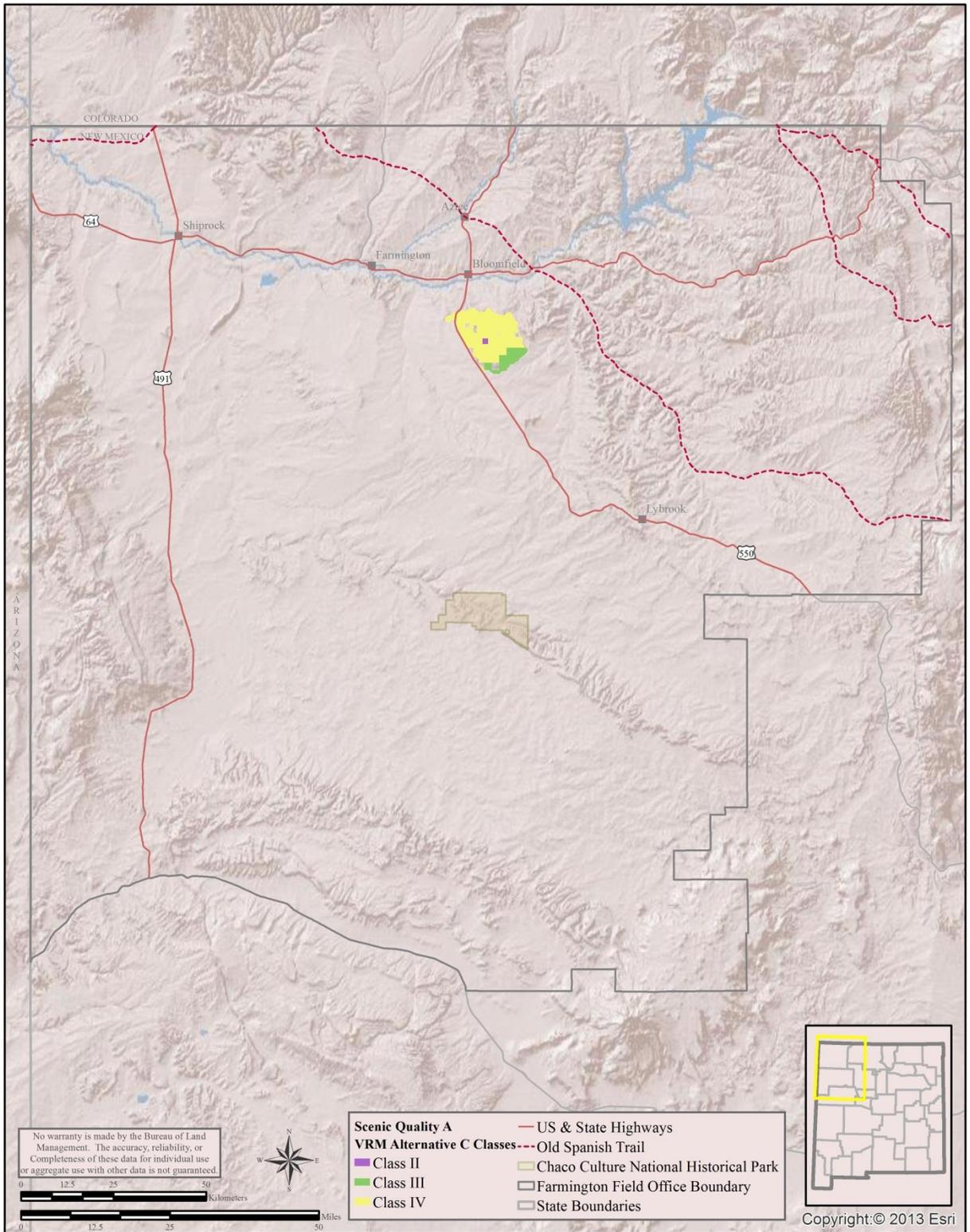


Figure 21. VRM Classes for Lands with a High Sensitivity Rating in Alternative C

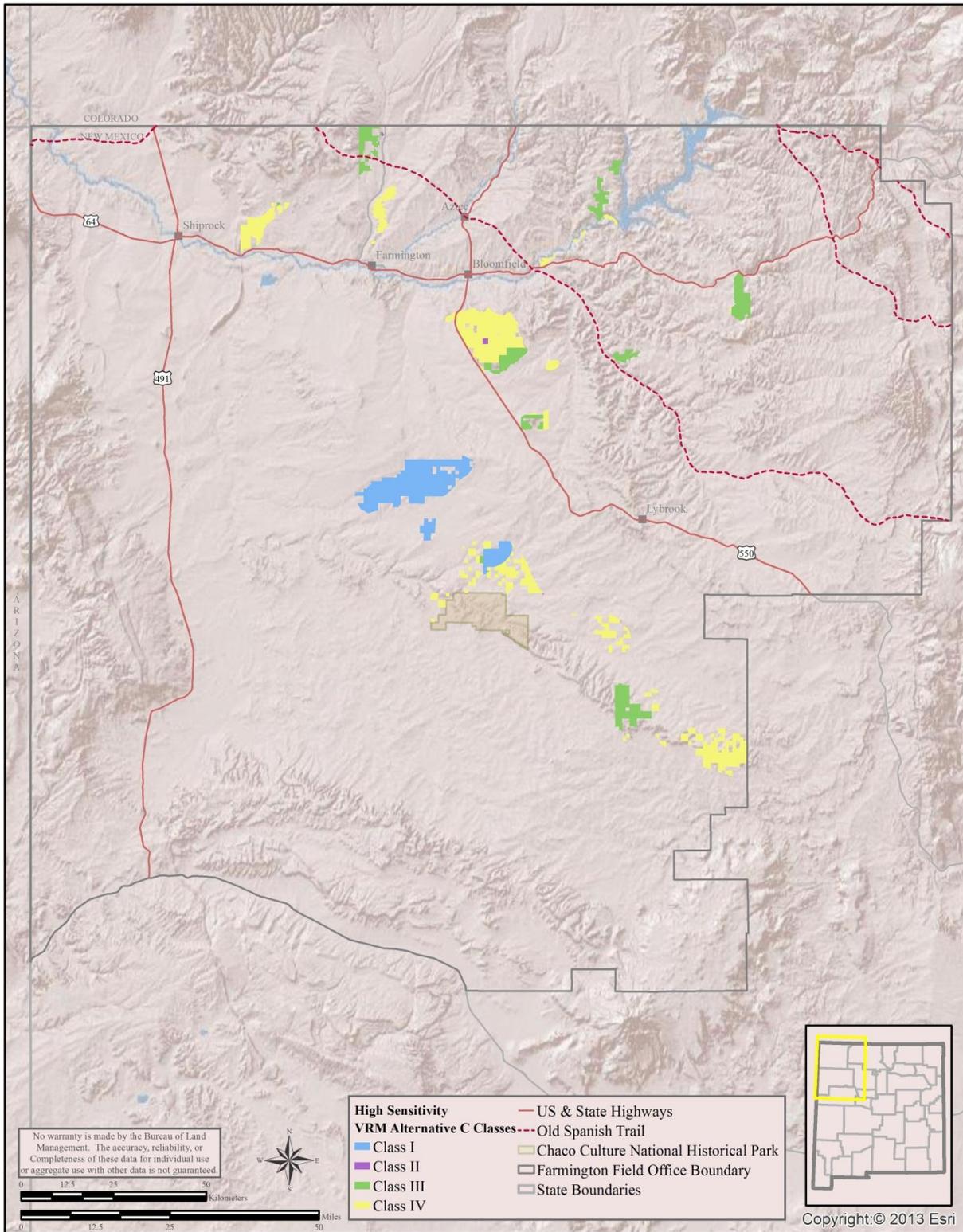


Table 27. VRM Classes by Sensitivity Rating in Alternative C (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	48,000	0	0
VRM Class II	0	2,000	1,000
VRM Class III	39,000	89,000	138,000
VRM Class IV	88,000	604,000	410,000
Total	175,000	695,000	549,000

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 28; Figure 22). With regard to VRI Class II lands, 3% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 30% would be in VRM Class III, potentially resulting in only partially retaining the character of those lands; and 67% would be in VRM Class IV, potentially resulting in a high level of change to those acres.

Table 28. 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	31,000	77,000	158,000
VRM Class IV	0	68,000	245,000	789,000
Total	45,000	102,000	324,000	948,000

Cumulative Impacts

Under Alternative C, 60% of the lands with a scenic quality rating of A managed in a VRM Class IV are managed by BLM; 40% of those lands are managed by entities other than BLM (Table 29). With regard lands with a scenic quality rating of A, management on BLM-managed lands has more impact to visual resources than management on BLM-managed lands.

Table 29. VRM Classes by Scenic Quality Rating for All Inventoried Lands in the Planning Area in Alternative C (acres)

VRM Class	Land Status	Scenic Quality Rating		
		A	B	C
VRM Class I	BLM-Managed Lands	0	3,000	0
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	0	1,000	1,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	6,000	97,000	164,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	30,000	304,000	768,000
	Non-BLM Managed Lands	20,000	1,154,000	1,516,000
Total		56,000	1,559,000	2,449,000

With regard to sensitivity, 26% of lands with a high level of public concern for scenic quality managed as VRM Class IV are managed by BLM (Table 30). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Figure 22. VRM Classes for VRI Class I and II Lands in Alternative C

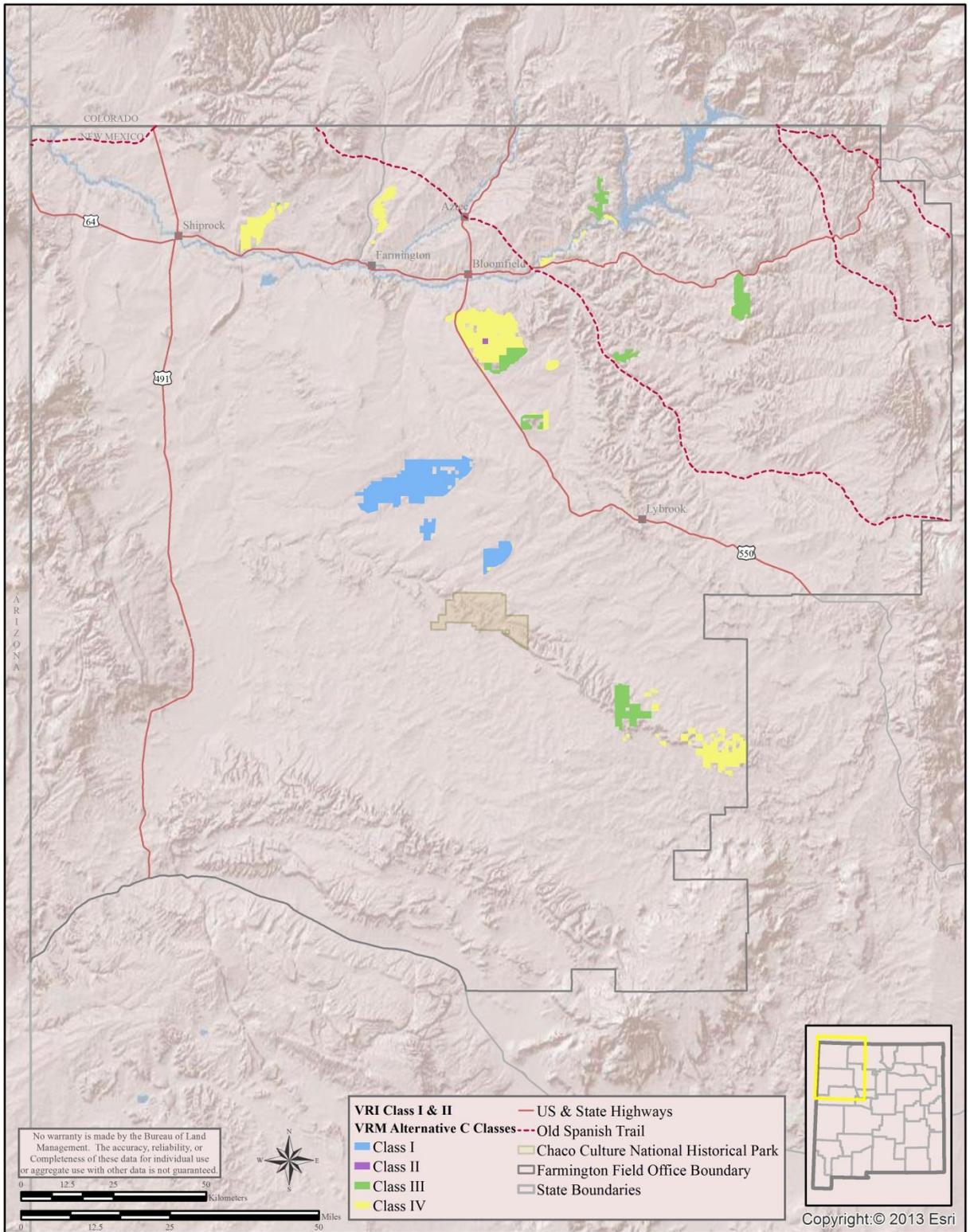


Table 30. VRM Classes by Sensitivity Rating on All Inventoried Lands in the Planning Area in Alternative C (acres)

VRM Class	Land Status	Sensitivity Rating		
		High	Medium	Low
VRM Class I	BLM-Managed Lands	48,000	0	0
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	0	2,000	1,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	39,000	89,000	138,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	88,000	604,000	410,000
	Non-BLM Managed Lands	235,000	1,289,000	1,172,000
Total		410,000	1,984,000	1,721,000

Under Alternative C, all of the VRI Class I lands managed by the BLM (87% of VRI Class I lands) are managed as VRM Class I (Table 31). For VRI Class I lands, none of the lands managed in VRM Class IV (13% of VRI Class I lands) are managed by the BLM. For VRI Class II lands, none of those 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 31. VRM Classes by VRI Classes for All Inventoried Lands in the Planning Area in Alternative C (acres)

VRM Class	Land Status	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	BLM-Managed Lands	45,000	3,000	0	0
	Non-BLM Managed Lands	0	0	0	0
VRM Class II	BLM-Managed Lands	0	0	2,000	1,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class III	BLM-Managed Lands	0	31,000	77,000	158,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class IV	BLM-Managed Lands	0	68,000	245,000	789,000
	Non-BLM Managed Lands	7,000	151,000	1,025,000	1,514,000
Total		52,000	253,000	1,349,000	2,462,000

4.2.4. Impacts from Alternative D

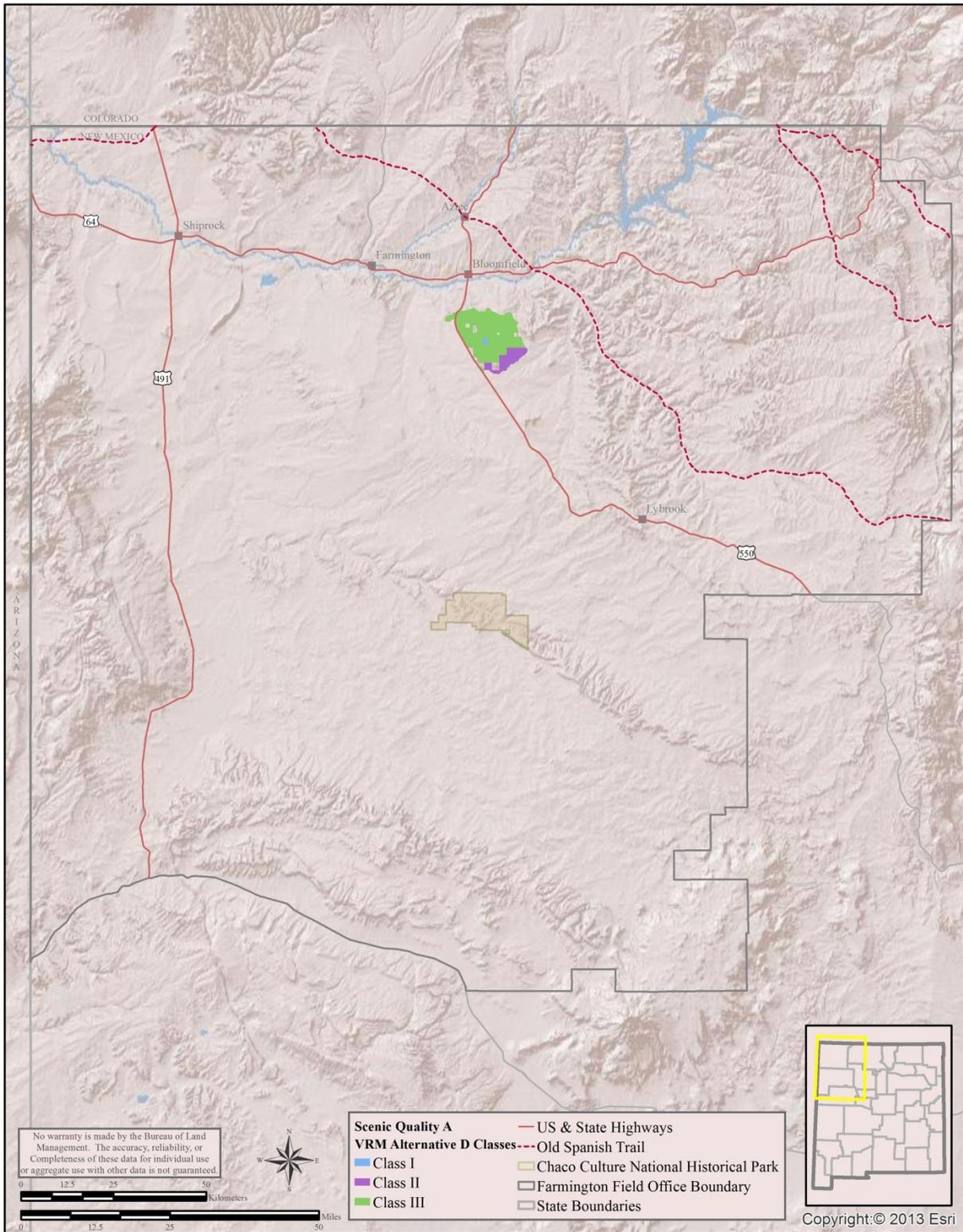
Direct and Indirect Impacts

Under Alternative D, 17% 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; 83% of these areas would be managed in VRM Class III, potentially allowing for a moderate degree of change to the scenic quality (Table 32; Figure 23).

Table 32. VRM Classes by Scenic Quality Rating in Alternative D (acres)

VRM Class	Scenic Quality Rating		
	A	B	C
VRM Class I	0	15,000	20,000
VRM Class II	6,000	91,000	197,000
VRM Class III	30,000	299,000	717,000
VRM Class IV	0	0	0
Total	36,000	405,000	934,000

Figure 23. VRM Classes for Lands with a Scenic Quality Rating of A in Alternative D



Under Alternative D, 44% 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; 23% of these lands would be managed in VRM Class II, allowing a low level of change (Table 33; Figure 24). The remainder of the lands with a high level of public concern for scenic quality (33%) would be managed in VRM Class III, which would allow for a moderate level of change.

Table 33. VRM Classes by Sensitivity Rating in Alternative D (acres)

VRM Class	Sensitivity Rating		
	High	Medium	Low
VRM Class I	78,000	2,000	1,000
VRM Class II	40,000	111,000	161,000
VRM Class III	58,000	582,000	387,000
VRM Class IV	0	0	0
Total	176,000	695,000	549,000

Under Alternative D, all VRI Class I acres would be in VRM Class I, resulting in preservation of the existing visual character of those lands (Table 34; Figure 25). With regard to VRI Class II lands, 14% would be in VRM Class I, resulting in preservation of the existing visual character of those lands. Additionally, 31% would be in VRM Class II, allowing a low level of change; 55% would be in VRM Class III, potentially resulting in only partially retaining the character of those lands.

Table 34. VRM Classes by VRI Classes in Alternative D (acres)

VRM Class	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	45,000	14,000	20,000	1,000
VRM Class II	0	32,000	73,000	207,000
VRM Class III	0	57,000	230,000	741,000
VRM Class IV	0	0	0	0
Total	45,000	103,000	323,000	949,000

Cumulative Impacts

Under Alternative D, all of the lands with a scenic quality rating of A that are managed in VRM Classes II and III are managed by the BLM. All of the lands with a scenic quality rating of A managed in a VRM Class IV are managed by entities other than BLM (Table 35). With regard lands with a scenic quality rating of A, management on non-BLM managed lands has more impact to visual resources than management on BLM-managed lands.

Table 35. VRM Classes by Scenic Quality Rating for All Inventoried Lands in the Planning Area in Alternative D (acres)

VRM Class	Land Status	Scenic Quality Rating		
		A	B	C
VRM Class I	BLM-Managed Lands	0	15,000	20,000
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	6,000	91,000	197,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	30,000	299,000	717,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	0	0	0
	Non-BLM Managed Lands	20,000	1,154,000	1,516,000
Total		56,000	1,599,000	2,450,000

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 36). With regard to scenic quality, management on non-BLM lands has more impact to visual resources than management on BLM-managed lands.

Figure 24. VRM Classes for Lands with a High Sensitivity Rating in Alternative D

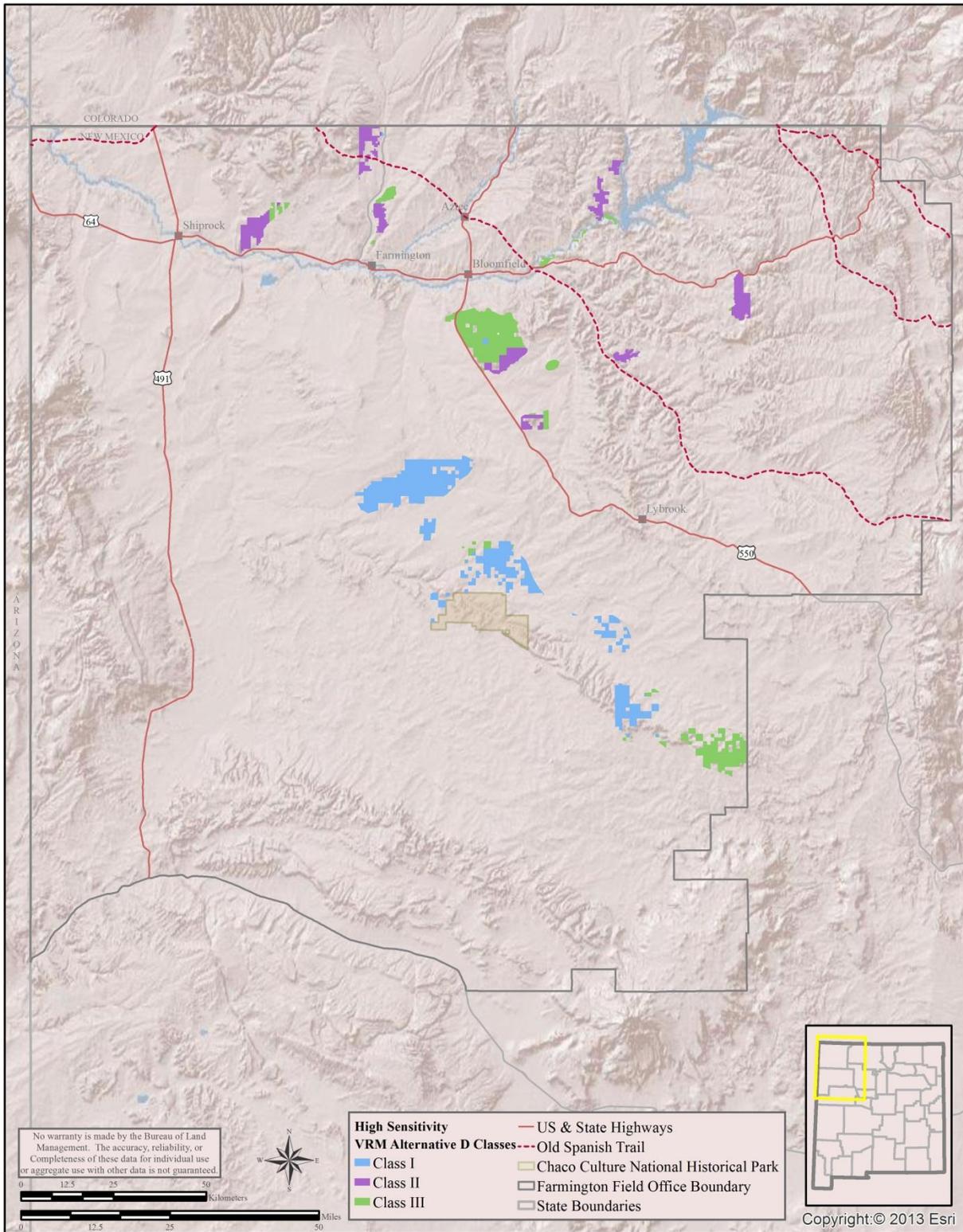


Figure 25. VRM Classes for VRI Class I and II Lands in Alternative D

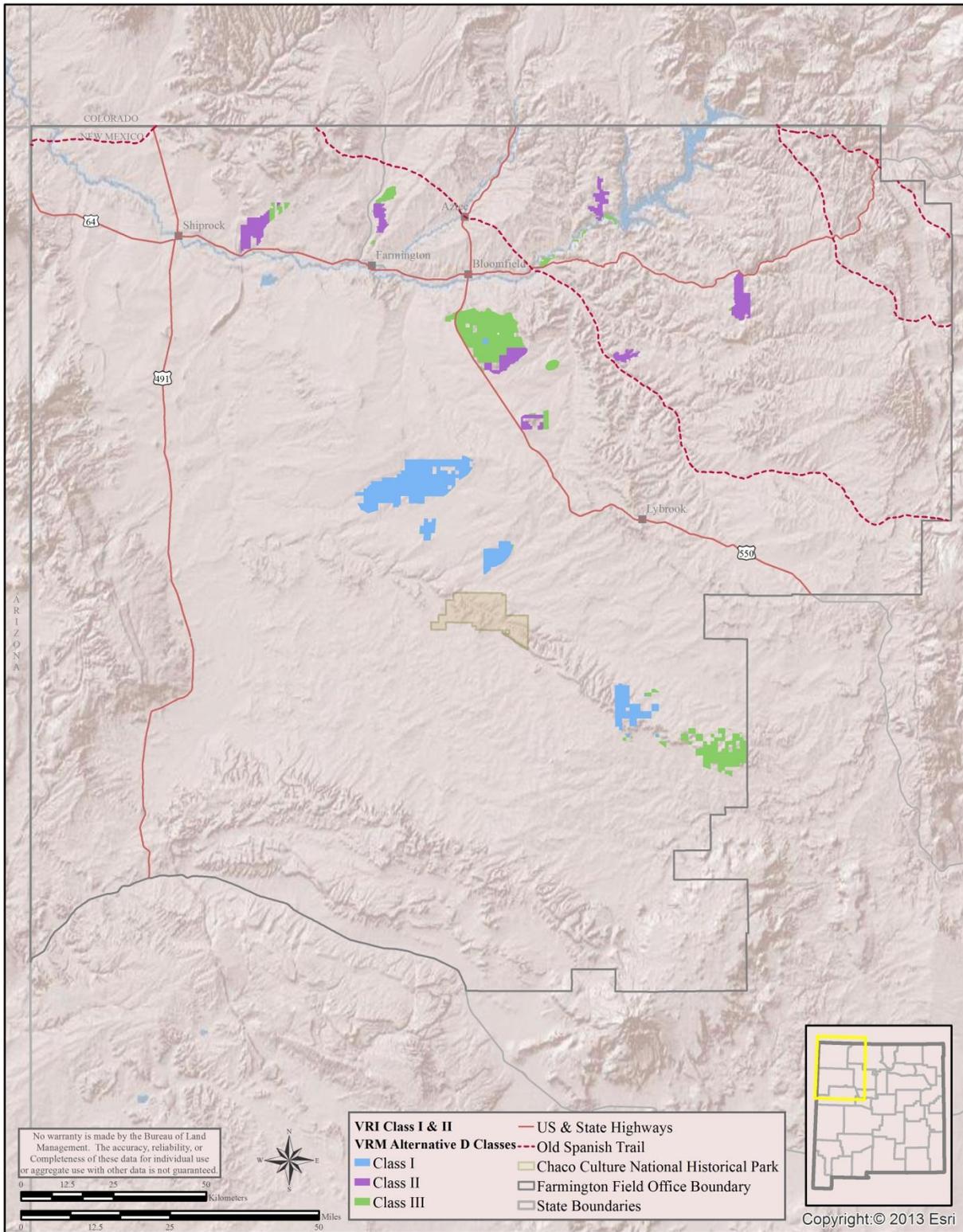


Table 36. VRM Classes by Sensitivity Rating on All Inventoried Lands in the Planning Area in Alternative D (acres)

VRM Class	Land Status	Sensitivity Rating		
		High	Medium	Low
VRM Class I	BLM-Managed Lands	78,000	2,000	1,000
	Non-BLM Managed Lands	0	0	0
VRM Class II	BLM-Managed Lands	40,000	111,000	161,000
	Non-BLM Managed Lands	0	0	0
VRM Class III	BLM-Managed Lands	58,000	582,000	387,000
	Non-BLM Managed Lands	0	0	0
VRM Class IV	BLM-Managed Lands	0	0	0
	Non-BLM Managed Lands	235,000	1,289,000	1,172,000
Total		411,000	1,984,000	1,721,000

The analysis of cumulative impacts for Alternative D identifies an increase in the number of acres in VRM Class IV (Table 37). 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 37. VRM Classes by VRI Classes for All Inventoried Lands in the Planning Area in Alternative D (acres)

VRM Class	Land Status	VRI Class I	VRI Class II	VRI Class III	VRI Class IV
VRM Class I	BLM-Managed Lands	45,000	14,000	20,000	1,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class II	BLM-Managed Lands	0	32,000	73,000	207,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class III	BLM-Managed Lands	0	57,000	230,000	741,000
	Non-BLM Managed Lands	0	0	0	0
VRM Class IV	BLM-Managed Lands	0	0	0	0
	Non-BLM Managed Lands	7,000	151,000	1,025,000	1,514,000
Total		52,000	254,000	1,348,000	2,463,000

4.2.5. Summary of Impacts

Under Alternative C, all of the VRI Class I lands managed by the BLM (87% of VRI Class I lands) are managed as VRM Class I (Table 38). For VRI Class I lands, none of the lands managed in VRM Class IV (13% of VRI Class I lands) are managed by the BLM. For VRI Class II lands, none of those 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 38. Impacts to Lands with a Scenic Quality Rating of A by Alternative (acres)

VRM Class	Alternative				
	No Action	A	B	C	D
VRM Class I	0	0	0	0	0
VRM Class II	6,000	6,000	0	0	6,000
VRM Class II/III	0				
VRM Class III	0	24,000	6,000	6,000	30,000
VRM Class II/IV	0				
VRM Class II/III/IV	30,000				
VRM Class III/IV	6,000				
VRM Class IV	0	6,000	30,000	30,000	0
Total	42,000	36,000	36,000	36,000	36,000

The No Action Alternative and Alternative D manage the most lands with high visual sensitivity in VRM Class I or II, which would allow for the preservation or retention of the existing character of the landscape (Table 39). Alternative C would managed the most land with high visual sensitivity VRM Class IV, allowing for a high level of change to the visual character.

Table 39. Impacts to Lands with High Visual Sensitivity by Alternative (acres)

VRM Class	Alternative				
	No Action	A	B	C	D
VRM Class I	53,000	48,000	48,000	48,000	78,000
VRM Class II	23,000	32,000	66,000	0	40,000
VRM Class II/III	10,000				
VRM Class III	6,000	61,000	61,000	39,000	58,000
VRM Class II/IV	0				
VRM Class II/III/IV	30,000				
VRM Class III/IV	60,000				
VRM Class IV	10,000	34,000	0	88,000	0
Total	192,000	175,000	175,000	175,000	176,000

All acres rated as VRI Class I would be managed as VRM Class I in all alternatives.

Table 40 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 D 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 40. Impacts to VRI Class II Lands by Alternative (acres)

VRM Class	Alternative				
	No Action	A	B	C	D
VRM Class I	3,000	3,000	3,000	3,000	14,000
VRM Class II	23,000	24,000	40,000	0	32,000
VRM Class II/III	10,000				
VRM Class III	10,000	43,000	60,000	31,000	57,000
VRM Class II/III/IV	30,000				
VRM Class III/IV	39,000				
VRM Class IV	10,000	32,000	0	68,000	0
Total	125,000	102,000	103,000	102,000	103,000

4.3. Cultural Resources

4.3.1. Analysis Methods

Direct and Indirect Impacts

Cultural Resources

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 the analysis, the acres in each VRM Class for each alternative are identified for Cultural ACECs per current GIS data layer information.

Cultural Landscapes

The analysis of cultural landscapes presents some challenges due to the absence of any formal identification of specific landscapes (e.g., the use of the methodologies identified in Section 3.1.2). That does not mean that cultural landscapes do not occur in the planning area and much debate has occurred regarding how to approach the discussion of cultural landscapes and what the boundaries of those landscapes might be. Discussion has varied from landscapes that include the entire San Juan Basin, to landscapes that surround Chaco Culture NHP, to landscapes for smaller culture sites such as ACECs. Due to the lack of formal landscapes, the discussion of impacts to landscapes will not appear under a Cultural Landscape heading in this document. Instead it is captured throughout the document. For example, a discussion of impacts to the visual character of a cultural landscape that includes the entire field office is included in the analysis of impacts to visual resources (Section 4.2). A discussion of impacts to the visual character of landscapes surrounding Chaco Culture NHP occurs in this section under that heading. A discussion of impacts to numerous landscapes involving BLM Cultural ACECs occurs in this section under the heading "Cultural Resources." It is important to note that although comments regarding cultural landscapes were received during scoping and on the draft version of the document and during various meetings regarding the development of this document, no proposals for cultural landscapes that would facilitate a specific discussion regarding impacts were provided.

Chaco Culture NHP

Historic resources have intrinsic values that could be affected by impacts to the viewshed of the resources. The landscape surrounding sites can be just as significant as the sites though the scenic values may not be distinctive or have special visual appeal. The level of potential change would influence the integrity of the visual setting and affect the National Register significance and eligibility of Chaco Culture NHP and other cultural sites in addition to Chaco Culture NHP's World Heritage values of sweeping, unimpaired views, clean air, and no intrusions of man-made noise or light. The analysis area includes areas visible in the foreground, middleground, and background of KOPs within Chaco Culture NHP. A VRM Class I or II was assumed to preserve or maintain the setting integrity, while a VRM Class III or IV could result in moderate to high changes to the setting integrity. However, impacts to lands in the foreground/middleground (3 to 5 miles) would be more visible than impacts to lands in the background (5 to 15 miles).

World Heritage Sites

Managing public lands according to VRM Class objectives would affect the visual character of BLM-managed World Heritage Sites 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 VRM Classes for each BLM-managed World Heritage Site are identified.

Cumulative Impacts

Cultural Resources

The two most common types of development in the FFO are leasable mineral development and ROWs. Under the 2003 Farmington RMP, Cultural Resource ACECs and World Heritage Sites are managed under No Surface Occupancy (NSO) or Controlled Surface Use (CSU) 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 Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS). In addition, proposed ground-disturbing projects will be subject to site-specific National Environmental Policy Act of 1969 (NEPA) analysis.

Chaco Culture NHP

There are no reasonably foreseeable actions that would result in similar impacts to Chaco Culture NHP. Cumulative impacts are not analyzed further.

World Heritage Sites

There are no reasonably foreseeable actions that would result in similar impacts to World Heritage Sites. Cumulative impacts are not analyzed further.

4.3.2. Impacts from the No Action Alternative

Direct and Indirect Impacts

Cultural Resources

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 41). 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 41. 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 II/III/IV	0
VRM Class III/IV	0
VRM Class IV	0
Total	59,000

Chaco Culture NHP

Under the No Action Alternative, 4% of the lands visible in the foreground/middleground from KOPs in Chaco Culture NHP would be managed under VRM Class I; 96% of those lands would be managed as VRM Class III or IV (Table 42). Thirteen percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 87% would be managed in a VRM Class that would allow for a moderate to high level of change to the visual setting (VRM Class III or IV). Overall, moderate to high levels of change to the visual setting of Chaco Culture NHP in both the foreground/middleground and background would be possible.

Table 42. VRM Classes for Acres in the Foreground/Middleground and Background of Chaco Culture NHP in the No Action Alternative

VRM Class	Foreground/Middleground	Background
VRM Class I	100	2,600
VRM Class II	0	700
VRM Class II/III	0	0
VRM Class III	0	500

VRM Class II/III/IV	0	0
VRM Class III/IV	2,300	22,300
VRM Class IV	0	0
Total	2,400	26,100

World Heritage Sites

Under the No Action Alternative, the BLM-managed World Heritage Sites of Casamero Community, Halfway House, Kin Nizhoni, Pierre’s Site, and Twin Angels ACECs would be managed as VRM Class I. This would allow for the preservation of the visual character of the landscape.

4.3.3. Impacts from the Alternative A

Direct and Indirect Impacts

Cultural Resources

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 43). 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 43. VRM Classes for Cultural Resource ACECs in Alternative A

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
Total	58,000

Chaco Culture NHP

Under Alternative A, 4% of the lands visible in the foreground/midground from KOPs in Chaco Culture NHP would be managed under VRM Class I; 96% of those lands would be managed as VRM Class III or IV setting (Table 44). Thirteen percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 87% would be managed in a VRM Class that would allow for a moderate to high level of change to the visual setting (VRM Class III or IV). Overall, moderate to high levels of change to the visual setting of Chaco Culture NHP in both the foreground/midground and background would be possible.

Table 44. VRM Classes for Acres in the Foreground/Middleground and Background of Chaco Culture NHP in Alternative A (acres)

VRM Class	Foreground/Middleground	Background
VRM Class I	100	2,600
VRM Class II	0	700
VRM Class III	0	500
VRM Class IV	2,300	22,300
Total	2,400	26,100

World Heritage Sites

Under Alternative A, the BLM-managed World Heritage Sites of Casamero Community, Halfway House, Kin Nizhoni, Pierre's Site, and Twin Angels ACECs would be managed as VRM Class I. This would allow for the preservation of the visual character of the landscape.

4.3.4. Impacts from Alternative B

Direct and Indirect Impacts

Cultural Resources

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 45).

Table 45. 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
Total	58,000

Chaco Culture NHP

Under Alternative B, all of the lands visible in the foreground/middleground from KOPs in Chaco Culture NHP would be managed under VRM Class I or II, resulting in the preservation or retention of the visual setting of those lands (Table 46). Twenty-nine percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 71% would be managed in a VRM Class that would allow for a moderate to high level of change to the visual setting (VRM Class III or IV). Overall, lands in the foreground/middleground would be managed to preserve or retain the visual setting of Chaco Culture NHP. While more than two-thirds of lands in the background could experience a moderate level of change to visual setting, these impacts would be less visible due to their distance from Chaco Culture NHP.

Table 46. VRM Classes for Acres in the Foreground/Middleground of Chaco Culture NHP in Alternative B

VRM Class	Foreground/Middleground	Background
VRM Class I	100	2,600
VRM Class II	2,300	4,900
VRM Class III	0	18,500
VRM Class IV	0	0
Total	2,400	26,000

World Heritage Sites

Under Alternative B, the BLM-managed World Heritage Sites of Casamero Community, Halfway House, Kin Nizhoni, Pierre's Site, and Twin Angels ACECs would be managed as VRM Class I. This would allow for the preservation of the visual character of the landscape.

4.3.5. Impacts from Alternative C

Direct and Indirect Impacts

Cultural Resources

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 II; Table 47). The visual setting of the remaining 55,000 acres would have more potential to change, as they would be in VRM Class III.

Table 47. 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
Total	58,000

Chaco Culture NHP

Under Alternative C, 4% of the lands visible in the foreground/midground from KOPs in Chaco Culture NHP would be managed under VRM Class I; 96% of those lands would be managed as VRM Class IV (Table 48). Ten percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 90% would be managed in a VRM Class that would allow for a moderate to high level of change (VRM Class III or IV). Overall, moderate to high levels of change to the visual setting of Chaco Culture NHP in both the foreground/midground and background would be possible.

Table 48. VRM Classes for Acres in the Foreground/Midground of Chaco Culture NHP in Alternative C

VRM Class	Foreground/Midground	Background
VRM Class I	100	2,400
VRM Class II	0	200
VRM Class III	0	700
VRM Class IV	2,300	22,800
Total	2,400	26,100

World Heritage Sites

Under Alternative C, the BLM-managed World Heritage Sites of Casamero Community, Halfway House, Kin Nizhoni, Pierre's Site, and Twin Angels ACECs would be managed as VRM Class II. This would allow for the retention of the visual character of the landscape.

4.3.6. Impacts from Alternative D

Direct and Indirect Impacts

Cultural Resources

Under Alternative D, all Cultural Resource ACECs (58,000 acres) would be managed to preserve or retain their existing visual character, resulting in the preservation of the existing visual setting (VRM Class I and II; Table 49).

Table 49. VRM Classes for Cultural Resource ACECs in Alternative D

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
Total	58,000

Chaco Culture NHP

Under Alternative D, all of the lands visible in the foreground/midground from KOPs in Chaco Culture NHP would be managed under VRM Class II (Table 50). Twenty-seven percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 73% would be managed in a VRM Class that would allow for a moderate to high level of change (VRM Class III or IV). Overall, lands in the foreground/midground would be managed to preserve or retain the visual setting of Chaco Culture NHP. While approximately a quarter of lands in the background could experience a moderate level of change to visual setting, these impacts would be less visible due to their distance from Chaco Culture NHP.

Table 50. VRM Classes for Acres in the Foreground/Midground of Chaco Culture NHP in Alternative D

VRM Class	Foreground/Midground	Background
VRM Class I	2,400	6,400
VRM Class II	0	600
VRM Class III	0	19,000
VRM Class IV	0	0
Total	2,400	26,000

World Heritage Sites

Under Alternative D, the BLM-managed World Heritage Sites of Casamero Community, Halfway House, Kin Nizhoni, Pierre's Site, and Twin Angels ACECs would be managed as VRM Class I. This would allow for the preservation of the visual character of the landscape.

4.3.7. Summary of Impacts

Cultural Resources

Alternatives B and D would manage all lands in Cultural ACECs to maintain their visual setting (Table 51). 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 51. Summary of Impacts to Cultural ACECs by Alternative (acres)

VRM Class	Alternative				
	No Action	A	B	C	D
VRM Class I	3,000	3,000	3,000	0	3,000
VRM Class II	35,000	52,000	55,000	3,000	55,000
VRM Class II/III	7,000				
VRM Class III	14,000	3,000	0	55,000	0
VRM Class IV	0	0	0	0	0
Total	59,000	58,000	58,000	58,000	58,000

Chaco Culture NHP

Alternative D would manage the most acres visible within the foreground/midground of KOPs in Chaco Culture NHP as VRM Class I; however, Alternative B would manage the same number of acres as VRM Class I or II, still allowing for the preservation or retention of the visual character of the landscape (Table 52). Alternative D would managed the most acres visible within the background of KOPs in Chaco Culture NHP in VRM Class I; however Alternative B would manage more acres in VRM Class I or II.

Table 52. Summary of Impacts to Chaco Culture NHP by Alternative (acres)

VRM Class	Alternative				
	No Action	A	B	C	D
Foreground/Midground					
VRM Class I	100	100	100	100	2,400
VRM Class II	0	0	2,300	0	0
VRM Class II/III	0				
VRM Class III	0	0	0	0	0
VRM Class II/III/IV	0				
VRM Class III/IV	2,300				
VRM Class IV	0	2,300	0	2,300	0
Total	2,400	2,400	2,400	2,400	2,400
Background					
VRM Class I	2,600	2,600	2,600	2,400	6,400
VRM Class II	700	700	4,900	200	600
VRM Class II/III	0				
VRM Class III	500	500	18,500	700	19,000
VRM Class II/III/IV	0				
VRM Class III/IV	22,300				
VRM Class IV	0	22,300	0	22,800	0
Total	26,100	26,100	26,000	26,100	26,000

World Heritage Sites

BLM-managed World Heritage Sites would be managed as VRM Class I in the No Action Alternative and Alternatives A, B, and D, providing for the preservation of the visual character of the sites. These sites would be managed as VRM Class II in Alternative C, which would still allow for the retention of the visual character.

4.4. Oil and Gas Development

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 lease stipulations beyond those identified when the lease was offered for sale, but additional site-specific mitigation measures for mineral extraction or other program activities may be developed and implemented as necessary.

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 53). Management for existing leases would be subject to valid and existing rights.

Table 53. 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
Total	58,000	419,000	26,000	876,000	90,000

4.4.3. Impacts from the Alternative A

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 54). 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 54. VRM Classes by Areas Open and Closed to Leaseable Mineral Development in Alternative A

VRM Class	Acres Open to Leaseable Mineral Development				Acres Closed to Leaseable 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	26,000	17,000	16,000	0	23,000
VRM Class III	1,000	362,000	4,000	19,000	25,000
VRM Class IV	0	12,000	0	864,000	0
Total	30,000	391,000	20,000	883,000	96,000

4.4.4. Impacts from the Alternative B

Direct and Indirect Impacts

Under Alternative B, all acres managed under VRM Class I are managed under NSO stipulations or closed to leaseable mineral development under the 2003 Farmington RMP (Table 55). While 91% of acres managed under VRM Class II are managed under NSO or CSU stipulations or closed to leaseable mineral development, 9% of acres managed under VRM Class II are open for leaseable mineral development under standard terms and conditions. The application of a VRM Class II on these acres could create additional constraints on leaseable mineral development beyond those identified in the 2003 Farmington RMP. Management for existing leases would be subject to valid and existing rights.

Table 55. VRM Classes by Areas Open and Closed to Leaseable Mineral Development in Alternative B

VRM Class	Acres Open to Leaseable Mineral Development				Acres Closed to Leaseable 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	224,000	21,000	32,000	42,000
VRM Class III	1,000	167,000	0	851,000	5,000
VRM Class IV	0	0	0	0	0
Total	29,000	391,000	21,000	883,000	95,000

4.4.5. 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 leaseable mineral development under the 2003 Farmington RMP (Table 56). 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 56. VRM Classes by Areas Open and Closed to Leasable Mineral Development in Alternative C

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	0	0	0	0	48,000
VRM Class II	3,000	0	0	0	0
VRM Class III	26,000	187,000	21,000	0	33,000
VRM Class IV	1,000	204,000	0	883,000	14,000
Total	30,000	391,000	21,000	883,000	95,000

4.4.6. Impacts from Alternative D

Direct and Indirect Impacts

Under Alternative B, 72% acres managed under VRM Class I and all of the acres managed as VRM Class II are managed under NSO stipulations or closed to leasable mineral development under the 2003 Farmington RMP (Table 57). The remaining 28% of acres managed under VRM Class I are open for leasable mineral development under standard terms and conditions. The application of a VRM Class I on these acres could create additional constraints on leasable mineral development beyond those identified in the 2003 Farmington RMP. Management for existing leases would be subject to valid and existing rights.

Table 57. VRM Classes by Areas Open and Closed to Leasable Mineral Development in Alternative D

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	20,000	48,000
VRM Class II	25,000	233,000	21,000	0	42,000
VRM Class III	0	158,000	0	864,000	5,000
VRM Class IV	0	0	0	0	0
Total	28,000	391,000	21,000	884,000	95,000

4.4.7. Summary of Impacts

Under Alternative D, 20,000 acres of lands open to leasable mineral development under standard terms and conditions would be managed as VRM Class I (Table 58). This would result in constraints on development in those areas. Twenty-six thousand acres of lands open to leasable mineral development under standard terms and conditions would be managed as VRM Class II under Alternative B. This would also result in additional constraints, but not to the degree as in Alternative D.

Table 58. VRM Classes by Acres Open to Leasable Mineral Development Under Standard Terms and Conditions by Alternative

VRM Class	Alternative				
	No Action	A	B	C	D
VRM Class I	0	0	0	0	20,000
VRM Class II	0	0	32,000	0	
VRM Class III	0	19,000	851,000	0	864,000
VRM Class III/IV	876,000				
VRM Class IV	0	864,000	0	883,000	
Total	876,000	883,000	883,000	883,000	884,000

4.5. Recreation

4.5.1. Analysis Methods

Direct and Indirect Impacts

Recreation Areas

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; however, some recreational experiences are not dependent on visual character and so this will not always be the case. In order to assess the impacts of VRM on identified recreational experiences, the VRM Class in each alternative was identified for areas managed for recreational experiences. As a general rule, a VRM Class of I or II would maintain the existing visual character, while a VRM III or IV could result in moderate to high changes to that visual character.

Undesignated Areas

Recreation activities occur in areas outside designated recreation areas. VRM Classes in each alternative were identified for lands not managed as recreation area; however, because desired recreational experiences have not been identified for these areas, it is difficult to determine whether or not VRM would impact the dispersed recreation occurring in these areas.

Chaco Culture NHP

Activities on lands outside of the boundary of Chaco Culture NHP have the potential to impact recreation activities from KOPs within the park. Passive recreation, particularly that of viewing scenery and the surrounding landscape could be potentially impacted. KOPs were identified from which visitors to Chaco Culture NHP could overlook BLM-managed lands. The analysis area includes areas visible in the foreground, middleground, and background of KOPs within Chaco Culture NHP. A VRM Class I or II was assumed to preserve or maintain the setting integrity, while a VRM Class III or IV could result in moderate to high changes to the setting integrity. However, impacts to lands in the foreground/middleground (3 to 5 miles) would be more visible than impacts to lands in the background (5 to 15 miles). Because the analysis used the same data as the analysis for impacts to cultural resources in Chaco Culture NHP and in order to avoid duplication, the analysis relies on tables contained in Section 4.3.

Cumulative Impacts

Recreation Areas and Undesignated Areas

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.

Chaco Culture NHP

There are no reasonably foreseeable actions that would result similar impacts to Chaco Culture NHP. Cumulative impacts are not analyzed further.

4.5.2. Impacts from the No Action

Direct and Indirect Impacts

Recreation Areas

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 59). 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 59. 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
Total	76,000

Undesignated Areas

Under the No Action Alternative, 6% of areas undesignated for recreation would be managed to preserve or retain their existing visual character (VRM Class I or II; Table 60). The remaining 94% of areas undesignated for recreation could experience moderate to high change to the visual character. Because desired recreational experiences have not been identified for these areas, it is difficult to determine whether or not this would be an impact to dispersed recreation occurring in these areas.

Table 60. VRM Classes for Undesignated Areas in the No Action Alternative

VRM Class	Acres Managed as Undesignated Areas
VRM Class I	51,000
VRM Class II	39,000
VRM Class II/III	44,000
VRM Class III	58,000
VRM Class II/IV	41,000
VRM Class II/III/IV	47,000
VRM Class III/IV	1,073,000
VRM Class IV	41,000
Total	1,394,000

Chaco Culture NHP

Table 42 in Section 4.3.2 identifies the VRM Classes for acres visible from KOPs in Chaco Culture NHP under the No Action Alternative. Four percent of the lands visible in the foreground/midground from

KOPs in Chaco Culture NHP would be managed under VRM Class I, resulting in the preservation of the visual character of those lands; 96% of those lands would be managed as VRM Class III or IV, which would allow for a moderate to high level of change to the visual character. Thirteen percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 87% would be managed in a VRM Class that would allow for a moderate to high level of change (VRM Class III or IV).

4.5.3. Impacts from Alternative A

Direct and Indirect Impacts

Recreation Areas

Under Alternative A, 38,000 acres, 54% of FFO recreation areas would be managed to retain their existing visual character (VRM Class II; Table 61). 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. 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 61. VRM Classes for Recreation Areas in Alternative A

VRM Class	Acres Managed as Recreation Areas
VRM Class I	0
VRM Class II	38,000
VRM Class III	32,000
VRM Class IV	1,000
Total	71,000

Undesignated Areas

Under Alternative A, 8% of areas undesignated for recreation would be managed to preserve or retain their existing visual character (VRM Class I or II; Table 62). The remaining 92% of areas undesignated for recreation could experience moderate to high change to the visual character. Because desired recreational experiences have not been identified for these areas, it is difficult to determine whether or not this would be an impact to dispersed recreation occurring in these areas.

Table 62. VRM Classes for Undesignated Areas in Alternative A

VRM Class	Acres Managed as Undesignated Areas
VRM Class I	51,000
VRM Class II	52,000
VRM Class III	369,000
VRM Class IV	876,000
Total	1,348,000

Chaco Culture NHP

Table 44 in Section 4.3.3 identifies the VRM Classes for acres visible from KOPs in Chaco Culture NHP under Alternative A. Four percent of the lands visible in the foreground/midground from KOPs in Chaco Culture NHP would be managed under VRM Class I, resulting in the preservation of the visual character of those lands; 96% of those lands would be managed as VRM Class III or IV, which would allow for a moderate to high level of change to the visual character. Thirteen percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 87% would be managed in a VRM Class that would allow for a moderate to high level of change (VRM Class III or IV).

4.5.1. Impacts from Alternative B

Direct and Indirect Impacts

Recreation Areas

Under Alternative B, 32,000 acres, 45% of FFO recreation areas, would be managed to retain their existing visual character (VRM Class II; Table 63). The visual character of 39,000 acres managed as VRM Class III would have more potential to change, potentially leading to negative impacts to recreational experiences.

Table 63. VRM Classes for Recreation Areas in Alternative B

VRM Class	Acres Managed as Recreation Areas
VRM Class I	0
VRM Class II	32,000
VRM Class III	39,000
VRM Class IV	0
Total	71,000

Undesignated Areas

Under Alternative B, 26% of areas undesignated for recreation would be managed to preserve or retain their existing visual character (VRM Class I or II; Table 64). The remaining 74% of areas undesignated for recreation could experience moderate change to the visual character. Because desired recreational experiences have not been identified for these areas, it is difficult to determine whether or not this would be an impact to dispersed recreation occurring in these areas.

Table 64. VRM Classes for Undesignated Areas in Alternative B

VRM Class	Acres Managed as Undesignated Areas
VRM Class I	51,000
VRM Class II	304,000
VRM Class III	994,000
VRM Class IV	0
Total	1,349,000

Chaco Culture NHP

Table 46 in Section 4.3.4 identifies the VRM Classes for acres visible from KOPs in Chaco Culture NHP under Alternative B. All of the lands visible in the foreground/midground from KOPs in Chaco Culture NHP would be managed under VRM Class I or II, resulting in the preservation or retention of the visual character of those lands. Twenty-nine percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 71% would be managed in a VRM Class that would allow for a moderate to high level of change (VRM Class III or IV).

4.5.2. Impacts from Alternative C

Direct and Indirect Impacts

Recreation Areas

Under Alternative C, no FFO recreation areas would be managed to preserve or retain their existing visual character (VRM Class I or II; Table 65). 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 65. 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	26,000
Total	72,000

Undesignated Areas

Under Alternative C, 4% of areas undesignated for recreation would be managed to preserve or retain their existing visual character (VRM Class I or II; Table 66). The remaining 96% of areas undesignated for recreation could experience moderate to high change to the visual character. Because desired recreational experiences have not been identified for these areas, it is difficult to determine whether or not this would be an impact to dispersed recreation occurring in these areas.

Table 66. VRM Classes for Undesignated Areas in Alternative C

VRM Class	Acres Managed as Undesignated Areas
VRM Class I	48,000
VRM Class II	3,000
VRM Class III	221,000
VRM Class IV	1,077,000
Total	1,349,000

Chaco Culture NHP

Table 48 in Section 4.3.5 identifies the VRM Classes for acres visible from KOPs in Chaco Culture NHP under Alternative C. Four percent of the lands visible in the foreground/midground from KOPs in Chaco Culture NHP would be managed under VRM Class I, resulting in the preservation of the visual character of those lands; 96% of those lands would be managed as VRM Class IV, which would allow for a high level of change to the visual character. Ten percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 90% would be managed in a VRM Class that would allow for a moderate to high level of change (VRM Class III or IV).

4.5.3. Impacts from Alternative D

Direct and Indirect Impacts

Recreation Areas

Under Alternative D, 33,000 acres, 46% of FFO recreation areas, would be managed to retain their existing visual character (VRM Class II; Table 67). 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 67. VRM Classes for Recreation Areas in the Alternative D

VRM Class	Acres Managed as Recreation Areas
VRM Class I	0
VRM Class II	33,000
VRM Class III	39,000
VRM Class IV	0
Total	72,000

Undesignated Areas

Under Alternative D, 25% of areas undesignated for recreation would be managed to preserve or retain their existing visual character (VRM Class I or II; Table 68). The remaining 75% of areas undesignated for recreation could experience moderate change to the visual character. Because desired recreational experiences have not been identified for these areas, it is difficult to determine whether or not this would be an impact to dispersed recreation occurring in these areas.

Table 68. VRM Classes for Undesignated Areas in Alternative D

VRM Class	Acres Managed as Undesignated Areas
VRM Class I	70,000
VRM Class II	271,000
VRM Class III	1,007,000
VRM Class IV	0
Total	1,348,000

Chaco Culture NHP

Table 50 in Section 0 identifies the VRM Classes for acres visible from KOPs in Chaco Culture NHP under Alternative D. All of the lands visible in the foreground/middleground from KOPs in Chaco Culture NHP would be managed under VRM Class II, resulting in the preservation of the visual character of those lands. Twenty-seven percent of lands visible in the background from KOPs in Chaco Culture NHP would be managed as VRM Class I or II, while 73% would be managed in a VRM Class that would allow for a moderate to high level of change (VRM Class III or IV).

4.5.4. Summary of Impacts

Recreation Areas

Under Alternative A, more acres in recreation areas would be managed to retain their existing visual character than in any other alternative (Table 69). 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 69. Summary of Impacts to Recreation Areas (acres)

VRM Class	Alternative				
	No Action	A	B	C	D
VRM Class I	5,000	0	0	0	0
VRM Class II	21,000	38,000	32,000	0	33,000
VRM Class III	49,000	32,000	39,000	46,000	32,000
VRM Class IV	1,000	1,000	0	26,000	0
Total	76,000	71,000	71,000	72,000	72,000

Undesignated Areas

Table 70 summarizes the impacts of VRM Classes on areas not designated for recreation. Because recreational experiences have not been identified for these areas, it is difficult to draw any conclusions regarding impacts to those recreational experiences.

Table 70. Summary of Impacts to Undesignated Areas (acres)

VRM Class	Alternative				
	No Action	A	B	C	D
VRM Class I	51,000	51,000	51,000	48,000	70,000
VRM Class II	39,000	52,000	304,000	3,000	271,000
VRM Class III	58,000	369,000	994,000	221,000	1,007,000
VRM Class IV	41,000	876,000	0	1,077,000	0
Total	189,000	1,348,000	1,349,000	1,349,000	1,348,000

Chaco Culture NHP

Table 52 in Section 4.3.7 displays a summary of impacts to Chaco Culture NHP. Alternative D would manage the most acres visible within the foreground/midground of KOPs in Chaco Culture NHP as VRM Class I; however, Alternative B would manage the same number of acres as VRM Class I or II, still allowing for the preservation or retention of the visual character of the landscape. Alternative D would manage the most acres visible within the background of KOPs in Chaco Culture NHP in VRM Class I; however Alternative B would manage more acres in VRM Class I or II.

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 rights-of-way (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

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, 28% 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. Impacts from Alternative D

Direct and Indirect Impacts

In Alternative D, 28% 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.

4.6.5. Summary of Impacts

Under Alternatives B and D, 28% of the planning area would be managed to preserve or retain its existing visual character. These alternatives 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.

4.7. National Historic Trails

4.7.1. Analysis Methods

Direct and Indirect Impacts

A National Historic Trails (NHTs) is an extended, long-distance trail designated by Congress that is not necessarily managed as continuous but follows as closely as possible and practicable the original trails or routes of travel of national historic significance. The purpose of a NHT is the identification and protection of the historic route and the historic remnants and artifacts for public use and enjoyment. An NHT is managed to recognize the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass.

High-potential route segments afford a high-quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route.

Resources, qualities, values, and associated settings have not been identified for the portions of the Old Spanish Trail that occur in the planning area, making it difficult to determine specific impacts to the trail from the designation of VRM Classes. GIS was used to determine the number of miles of the Old Spanish Trail NHT and the high-potential route segment of the Old Spanish Trail NHT in each VRM Class by alternative.

Management of route segments as a VRM Class I or II would maintain the existing character of the landscape, while management as a VRM Class III or IV would allow for a moderate to high level of change.

Cumulative Impacts

Two projects are currently proposed in areas containing portions of the Old Spanish Trail NHT in the northern part of the planning area: the San Juan Basin Energy Connect transmission line nor the Glade Run Recreation Area Recreation and Transportation Management Plan. Despite investigations conducted for both efforts, no evidence of the trail's location was identified. Further, this area has already experienced a high level of use and development, impacting trail values, resources, or associated setting. As these efforts do not anticipate impacts to trail values, resources, or associated settings, they do not contribute to cumulative impacts for this planning effort. As such, cumulative impacts will not be discussed further.

4.7.2. Impacts from the No Action Alternative

Direct and Indirect Impacts

Under the No Action Alternative, 2% of Old Spanish Trail NHT would be managed as VRM Class I, which would preserve the existing character of the landscape (Table 71). Ninety-eight percent of the trail would be managed as VRM Class III or IV, potentially allowing for a moderate to high level of change to the visual character of the landscape. Three percent of the high-potential route segment would be managed to retain the visual character.

Table 71. Miles of the Old Spanish Trail NHT by VRM Class in the No Action Alternative

VRM Class	High-Potential Route Segment	Total
VRM Class I	0	0
VRM Class II	1	1
VRM Class III	0	2
VRM Class II/III	1	1
VRM Class III/IV	30	48
VRM Class IV	0	0
Total	32	52

4.7.3. Impacts from Alternative A

Direct and Indirect Impacts

Under Alternative A, 6% of the Old Spanish Trail NHT would be managed as VRM Class II, retaining the existing character of the landscape (Table 72). Ninety-four percent of the trail would be managed as VRM Class III or IV, potentially allowing for a moderate to high level of change to the visual character of the landscape. Six percent of the high-potential route segment would be managed to retain the visual character.

Table 72. Miles of the Old Spanish Trail NHT by VRM Class in Alternative A

VRM Class	High-Potential Route Segment	Total
VRM Class I	0	0
VRM Class II	2	3
VRM Class III	5	6
VRM Class IV	25	42
Total	32	51

4.7.4. Impacts from Alternative B

Direct and Indirect Impacts

Under Alternative B, 47% of the Old Spanish Trail NHT would be managed as VRM Class II, retaining the existing character of the landscape (Table 73). Fifty-three percent of the trail would be managed as VRM Class III, potentially allowing for a moderate level of change to the visual character of the landscape. Seventy-four percent of the high-potential route segment would be managed to retain the visual character of the landscape.

Table 73. Miles of the Old Spanish Trail NHT by VRM Class in Alternative B

VRM Class	High-Potential Route Segment	Total
VRM Class I	0	0
VRM Class II	23	24
VRM Class III	8	27
VRM Class IV	0	0
Total	31	51

4.7.5. Impacts from Alternative C

Direct and Indirect Impacts

Under Alternative C, the Old Spanish Trail NHT would be managed as VRM Class III or IV, potentially allowing for a moderate to high level of change to the visual character of the landscape (Table 74). The high-potential route segment would be managed to allow for a moderate to high level of change to the visual character of the landscape.

Table 74. Miles of the Old Spanish Trail NHT by VRM Class in Alternative C

VRM Class	High-Potential Route Segment	Total
VRM Class I	0	0
VRM Class II	0	0
VRM Class III	7	8
VRM Class IV	25	44
Total	32	52

4.7.6. Impacts from Alternative D

Direct and Indirect Impacts

Under Alternative D, 15% of the Old Spanish Trail NHT would be managed as VRM Class II, retaining the existing character of the landscape (Table 75). Eight-five percent of the trail would be managed as VRM Class IV, potentially allowing for a high level of change to the visual character of the landscape. Nineteen percent of the high-potential route segment would be managed to retain the visual character of the landscape.

Table 75. Miles of the Old Spanish Trail NHT by VRM Class in Alternative D

VRM Class	High-Potential Route Segment	Total
VRM Class I	0	0
VRM Class II	6	8
VRM Class III	25	43
VRM Class IV	0	0
Total	31	51

4.7.7. Summary of Impacts

Alternative B would managed the most miles of high-potential route segments and total miles of the Old Spanish Trail NHT as VRM Class II, providing for the retention of the existing character of the landscape (Table 76). Alternatives A and C manages the most miles as a VRM Class IV which would allow for a high level of change to the existing character of the landscape.

Table 76. Summary of Impacts to the Old Spanish Trail NHT by Alternative (miles)

VRM Class	Alternative				
	No Action	A	B	C	D
High-Potential Route Segment					
VRM Class I	0	0	0	0	0
VRM Class II	1	2	23	0	6
VRM Class III	0	5	8	7	25
VRM Class II/III	1				
VRM Class III/IV	30				
VRM Class IV	0	25	0	25	0
Total	32	32	31	32	31
Total					
VRM Class I	0	0	0	0	0
VRM Class II	1	3	24	0	8
VRM Class III	2	6	27	8	43
VRM Class II/III	1				
VRM Class III/IV	48				
VRM Class IV	0	42	0	44	0
Total	52	51	51	52	51

5. SUPPORTING INFORMATION

5.1. Consultation

The following tribal governments and departments were invited by letter (June 2011) to participate in the development of this document by providing comments and identifying issues:

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

The Pueblo of Zuni responded that they had no concerns regarding the undertaking. There were no other responses.

Pursuant to Section III of the Protocol Agreement between New Mexico Bureau of Land Management and New Mexico State Historic Preservation Officer the New Mexico State Historic Preservation Office (SHPO) was invited in June 2011 to participate by helping provide comments and identify issues.

Additional historic preservation Section 106 consultation with the NPS, New Mexico SHPO, Native American tribes, and various NGOs (San Juan Citizens Alliance, Chaco Alliance, National Trust for Historic Preservation) regarding the VRM amendment and lands in proximity to Chaco Culture NHP has occurred throughout the development of this document. The BLM met with one or more of these parties on the following dates:

- February 23, 2012 (BLM Farmington)
- May 8, 2012 (BLM Farmington)
- February 27, 2013 (BLM Farmington)
- April 24, 2013 ((Chaco National Historical Park)

All of the parties were also notified on April 17, 2013 that the draft EA was available for review online. Hard copies were mailed to Hopi at their request.

5.2. Coordination

The following organizations, businesses, and government entities were identified as interested parties in the preparation of this document. They were mailed a letter in June 2011 informing them that the BLM intended to prepare a Resource Management Plan Amendment to address visual resource management.

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

- 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
 - Vanguard Wireless
 - Verizon Wireless
 - Voice Ministries
 - XTO Energy Inc.
- Government Entities
 - Chaco Culture NHP, Superintendent Barbara West
 - Chaco Culture NHP, Superintendent Larry Turk
 - 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 77 contains a list of the FFO staff who participated in the preparation of this document.

Table 77. List of Preparers

Name	Title
Lindsey Eoff	Project Manager
Janelle Alleman	Outdoor Recreation Specialist
Jim Copeland	Archaeologist
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
Adam Madigan	GIS 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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APPENDIX A. COMPARISON OF ALTERNATIVE MANAGEMENT FOR SPECIALLY DESIGNATED AREAS

The following table identifies the Visual Resource Inventory (VRI) Class and proposed Visual Resource Management (VRM) Class for each Specially Designated Area (SDA), including Areas of Critical Environmental Concern (ACECs), under each alternative.

Name	VRI Class ¹	VRM Class				
		No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Adams Canyon ACEC	III/IV	II	II	II	III	II
Ah-Shi-Sle-Pah Road ACEC	III	II	II	II	III	II
Ah-Shi-Sle-Pah WSA	I/III	I	I	I	I	I
Alien Run Mountain Bike Trails	IV	III	II	II	III	II
Angel Peak ACEC	II	II	II	II	III	II
Angel Peak Scenic Area	II/III/IV	II	II	II	III	II
Ashii Naa'a (Salt Point) ACEC	III/IV	II	II	II	III	II
Andrew's Ranch ACEC	III	I	I	I	II	I
Bald Eagle ACEC	II/III/IV	II	III	II	III	II
Bee Burrow ACEC	IV	I	I	I	II	I
Beechatuga Tongue Geological Formation	II	IV	II	II	III	II
Betonne Tsose Fossil Area	III/IV	III	III	III	IV	III
Bi Yaazh ACEC	III	II	II	II	III	II
Bis Sa'ani ACEC	IV	I	I	I	II	I
Bisti/De-Na-Zin Wilderness Area	I/III/IV/ NR	I	I	I	I	I
Blanco Mesa ACEC	III	II	II	II	III	II
Blanco Star Panel ACEC	III	II	II	II	III	II
Bohanon Canyon Fossil Complex	IV	III	IV	III	IV	III
Cagle's Site ACEC	IV	II	II	II	III	II
Canyon View Ruin ACEC	III	II	II	II	III	
Carracas Mesa Recreation / Wildlife Area	IV/NR	II	III	II	III	II
Carson Fossil Pocket	IV	III	III	III	IV	III
Casamero Community ACEC ²	III	I	I	I	II	I
Cedar Hill ACEC	IV	II	III	II	III	II
Cereza Canyon Wildlife Area	III/IV/ NR	IV	III	II	IV	II
Chacra Mesa Complex ACEC	II	II	II	II	III	II
Cho'li'I (Gobernador Knob) ACEC	II	II	II	II	III	II
Christmas Tree Ruin ACEC	IV	II	II	II	III	II
Church Rock Outlier ACEC	III	II	II	II	III	II
Crow Canyon ACEC	II/III/IV	II/III	II	II	III	II
Crow Mesa Wildlife Area	III/IV	III/IV	III	II	III	II
Crownpoint Steps and Herrudura ACEC	III	II	II	II	III	II
Deer House ACEC	III	II	II	II	III	II

Name	VRI Class ¹	VRM Class				
		No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Delgadita / Pueblo Canyons ACEC	III/IV	II	II	II	III	II
Devil's Spring Mesa ACEC	III/IV	II	II	II	III	II
Dogie Canyon School ACEC	III/IV	II	II	II	III	II
Dunes Vehicle Recreation Area	IV	IV	IV	III	IV	III
Dzil'na'oodlii (Huerfano Mesa) ACEC	II/IV	II	II	II	III	II
East La Plata Wildlife Area	II/IV	III	III	III	IV	III
East Side Rincon ACEC	II/IV	II	II	II	III	II
Encierro Canyon ACEC	III/IV	II	II	II	III	II
Encinada Mesa - Carrizo Canyon ACEC	III/IV	II/III	II	II	III	II
Ensenada Mesa Wildlife Area	II/III/IV	III/IV	III	II	III	II
Ephemeral Wash Riparian Area	II/III/IV/NR	II/III/IV	III	II/III	IV	III
Farmer's Arroyo ACEC	IV	II	II	II	III	II
Fossil Forest RNA	II/III	I	I	I	I	I
Four Ye'i ACEC	III	II	II	II	III	II
Frances Mesa ACEC	IV	II/III	II	II	III	II
Glade Run Recreation Area	II/IV	III	III	III	IV	II
Gobernador and Cereza Canyon Fossil Area	II/III/IV/NR	IV	III	III	IV	III
Gonzalez Canyon - Senon S. Vigil Homestead ACEC	III/IV	II	II	II	III	II
Gonzales Mesa Wildlife Area	III/IV/NR	III/IV	III	II	III	II
Gould Pass Camp ACEC	IV	II	II	II	III	II
Halfway House ACEC ²	IV	I	I	I	II	I
Haynes Trading Post ACEC	III	II	II	II	III	II
Head Canyon Motocross Track	IV	IV	IV	III	IV	III
The Hogback ACEC	II/IV	II/III	III	II	IV	II
Holmes Group ACEC	IV	II	II	II	III	II
Hummingbird ACEC	III	II	II	II	III	II
Indian Creek ACEC	IV	I	I	I	II	I
Kachina Mask ACEC	III/IV	II	II	II	III	II
Kin Nizhoni ACEC ²	III	I	I	I	II	I
Kin Yazhi (Little House) ACEC	III	II	II	II	III	II
Kiva ACEC	IV	II	II	II	III	II
Kutz Canyon Fossil Area	II/III/IV	II/III/IV	III	III	IV	III
La Jara ACEC	IV	II	III	II	III	II
Laguna Seca Mesa Wildlife Area	II/III/IV/NR	IV	III	II	III	II
Largo Canyon Star Ceiling ACEC	III/IV	II	II	II	III	II
Lybrook Fossil Area	IV	III/IV	III	III	IV	III
Margarita Martinez Homestead ACEC	III	II	II	II	III	II

Name	VRI Class ¹	VRM Class				
		No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Martin Apodaca Homestead ACEC	III/IV	II	II	II	III	II
Martinez Canyon ACEC	III/IV	II	II	II	III	II
Mexican Spotted Owl ACEC	II/III/IV	IV	III	II	III	II
Middle Mesa Wildlife Area	II/IV	II/III	III	II	IV	II
Morris 41 ACEC	II	I	I	I	II	I
Moss Trail ACEC	IV	II	II	II	III	II
Munoz Canyon ACEC	III/IV	II	II	II	III	II
Navajo Lake Horse Trails	IV	III	II	III	III	III
Negro Canyon SDA	III/IV	I	II	II	III	II
North Road ACEC	I/II/III/ IV	II	II	II	III	II
Pierre's Site ACEC ²	III	I	I	I	II	I
Pinon Mesa Fossil Area	III/IV	III	III	III	IV	III
Pinon Mesa Recreation Area	III/IV	III	III	II	III	III
Pointed Butte ACEC	III	II	II	II	III	II
Pregnant Basketmaker ACEC	IV	II	II	II	III	II
Pretty Woman ACEC	III	II	II	II	III	II
Prieta Mesa ACEC	IV	II	II	II	III	II
Rattlesnake Canyon Wildlife Area	II/III/IV	III/IV	III	II	III	II
Reese Canyon RNA	II/IV	II	III	II	III	II
Rincon Largo District ACEC	III	II	II	II	III	II
Rincon Rock Shelter ACEC	III/IV	II	II	II	III	II
River Tracts ACEC	II/III/ IV/NR	NA	III	III	IV	III
Rock Garden Recreation Area	IV	III	III	III	IV	III
Rock House - Nestor Martin Homestead ACEC	III	II	II	II	III	II
Rosa Mesa Wildlife Area	II/IV/ NR	II/IV	III	III	IV	III
San Rafael Canyon ACEC	IV	II	II	II	III	II
Santos Peak ACEC	IV	II	II	II	III	II
Shield Bearer ACEC	IV	II	II	II	III	II
Simon Canyon ACEC	II/IV	II	II	II	III	II
Simon Ruin ACEC	II	II	II	II	III	II
Star Rock ACEC	III	II	II	II	III	II
Star Spring - Jesus Canyon ACEC	III/IV	II	II	II	III	II
Superior Mesa ACEC	III	II/III	II	II	III	II
Tapacito and Split Rock ACEC	III/IV	II	II	II	III	II
Thomas Canyon Recreation / Wildlife Area	II/III	I/III	II	II	III	II
Toh-La-Kai ACEC	III	I	I	I	II	I
Truby's Tower ACEC	III	II	II	II	III	II
Twin Angels ACEC ²	II	I	I	I	II	I
Upper Kin Klizhin ACEC	IV	I	I	I	II	I

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.

² World Heritage Site

APPENDIX B. COMMENT RESPONSE

This appendix displays substantive comments received by BLM during the comment period on the Draft Farmington Field Office Visual Resource Management Resource Management Plan Amendment Environmental Assessment. A substantive comment does one or more of the following:

- Questions, with reasonable basis, the accuracy of information in the environmental assessment.
- Questions, with reasonable basis, the adequacy of, methodology for, or assumptions used for the environmental analysis.
- Presents new information relevant to the analysis.
- Presents reasonable alternatives other than those analyzed in the environmental assessment.
- Causes changes or revisions in one or more of the alternatives.

When multiple comments were made on the same topic, the most representative comment was chosen to display in the table below. Comments may have been modified slightly for clarity. Comments are displayed in a parallel structure to the draft environmental assessment. In the Response column, a response is provided or the reader is directed to the section of the document where the comment has been addressed. Comments that are more general in nature or that address the process used to develop the environmental assessment are contained at the end of the table.

Comment	Response
1. Purpose and Need for the Action	
<p>We do not believe that the topic of the Old Spanish Trail National Historic Trail (NHT) should have been removed from the EA for further analysis. The BLM is coadministrator of the Old Spanish Trail National Historic Trail (NHT). BLM could describe their current visual management classes for the designated route of the Old Spanish Trail NHT. This is eminently doable, the map and GIS data are widely available. The trail is a mule trace and thus there are not now and likely will never be any identified trail ruts associated with the trail during its period of significance 1829-1848. It is possible that associated campsites may be identified, or that remote sensing could identify the mule traces in the future, but that does not alter BLM's management and administrative responsibilities for what Congress designated as part of the trail that crosses BLM lands.</p> <p>The Comprehensive Management Plan under preparation is a joint effort of NPS and BLM. The CMP does not currently address visual management issues in any detail on the trail on BLM lands or any other. Visual management decisions are usually made at the local levels like the BLM Farmington Field Office and in compliance with the recently released BLM Trails Administration and Management Manuals 6520 and 6580. These manuals should be referenced in the Farmington document.</p> <p>The Old Spanish Trail CMP is more of an administrative document, even though its title suggests that it is an actual management plan, because it includes the entire trail on all land management status, federal, state, local, and private.</p>	<p>See Sections 3.5 and 4.7.</p>

Comment	Response
<p>The BLM Farmington fabricated assertion that ambiguity in trail location and physical evidence somehow relieves them of legal responsibility to administer and manage the trail as a component of the National Landscape Conservation System is unacceptable from a public agency charged with clear responsibility under the law. The continued assertion that there is nothing to manage because physical traces have not been located has no foundation in the rule of law. Congress designated the 2700 miles of the Old Spanish National Historic Trail and placed it on a map to be administered and managed as a component of the National Trails System for public "open-air recreation" use and appreciation of the trail resource. The BLM Farmington refuses to acknowledge their responsibility to administer and manage the line Congress put on the map which legally defines the Trail.</p>	<p>See Sections 3.5 and 4.7.</p>
<p>The BLM chose not to consider impacts of VRM designations to the Old Spanish Trail National Historic Trail in the Draft VRM RMPA EA because the agency did not want to take the time to figure out the location of Trail segments in the FFO. BLM's conscious decision not to analyze impacts to the Trail is unacceptable for numerous reasons. First and foremost, the Armijo route through the BLM/FFO Glade Run Recreation Area (GRRA) is documented as a NHT. Secondly, the BLM forgets to mention in the VRM RMPA EA that the other agency currently working with the BPS on the management plan for the Old Spanish Trail NHT, is the BLM. Therefore, no VRM decisions concerning the unique features of BLM lands containing Old Spanish Trail NHT segments should occur until proper consultations have occurred to identify and protect this resource.</p>	<p>See Sections 3.5 and 4.7.</p>
<p>I did find it interesting that in the paragraph you quoted it stated that the "National Park Service is currently preparing a management plan..." seeming to ignore that fact that the CMP is a joint effort with the BLM.</p>	<p>This sentence has been deleted.</p>
<p>Key resource values that are directly related to visual resource management, but are not addressed in the RMPA/EA include: ...dark night sky conditions....</p>	<p>See Section 1.5.3.</p>
<p>Key resource values that are directly related to visual resource management, but are not addressed in the RMPA/EA include: ...air quality related to visibility....</p>	<p>See Section 1.5.3.</p>
<p>There is absolutely no mention of Environmental Justice (Executive Order 12898 of February 11, 1994 Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations) or socioeconomic impacts in the VRM RMPA EA.</p>	<p>See Section 1.5.3.</p>
<p>It is unclear where these "planning criteria" originated and why they would not be subject to change should new information from the VRI come forward.</p>	<p>According to BLM H-1601-1: Land Use Planning Handbook, "Planning criteria guide the development of the plan by helping define the decision space (or the "sideboards" that define the scope of the planning effort); they are generally based upon applicable laws, Director and State Director guidance, and the results of public and governmental participation (43 CFR 1610.4-2)" (page 19).</p>

Comment	Response
<p>We do not understand how one reconciles the fact that the VRI should have assessed the sensitivity level of lands applying factors such as “public interest, adjacent land uses (including lands adjacent to national parks) and special areas” (all factors with a nexus to the landscape outside of the Park) with the planning criteria that “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.” EA at 3.</p>	<p>These concepts do not reconcile because they are not related. VRI refers to the scenic quality of a parcel of land. Planning criteria relate to the sideboards that define the scope of the planning effort with regard to the designation of VRM classes. However, this planning criteria has been removed.</p>
<p>If assigning a VRM Class II to the landscape surrounding Chaco is constrained by designations made in the 2003 RMP i.e. “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,” (EA P.3) we would like clarification as to where that criteria comes from and why it is not subject to change based on new information.</p>	<p>This planning criteria has been removed.</p>
<p>We do not accept that past decisions should prohibit the BLM from taking new information into account, such as adverse visual effect to a World Heritage Site.</p>	<p>The Notice of Intent published in the Federal Register on June 13, 2011, states, "The RMP amendment/EA will determine if, over time, changes in the condition of the visual resources within the planning area warrant changes to VRM management objectives, and to what degree." This limits the scope of the RMPA/EA to allocations related to visual resources and does not allow for changing other allocations.</p>
2. Alternatives	
<p>The statements that Alternative B allows for more modification of the visual character and Alternative C allows for more retention appear to be opposite of what is identified in Table 3. Alternative B has extensive VRM Class III, while Alternative C has extensive VRM Class IV.</p>	<p>Text revised.</p>
<p>Please add Chaco Culture National Historical Park to the figures to show the relationship to the VRM classes in each alternative. Also a larger map to show more Figures detail would be easier to review and evaluate. Text is illegible on current plans in Section 2.</p>	<p>Maps revised.</p>
<p>Identify VRM Class II for BLM lands within the foreground/midground distance zone from KOPs within Chaco Culture NHP and identify VRM Class III for BLM lands within the background distance zone from KOPs within Chaco Culture NHP.</p>	<p>See Section 2.5.</p>
<p>It is particularly important to apply Class I or II designations to all areas within the Chaco viewshed, including those currently available for oil and gas leasing, in order protect that viewshed from adverse visual effects. Revision of the VRM would enable BLM to discern where additional leasing should be prohibited due to such adverse effects.</p>	<p>See Sections 2.5 and 2.7.</p>

Comment	Response
<p>In summary, the ACHP believes that it is incumbent upon the BLM to not only take the full range of Chacoan sites into account when assigning VRM classes, but to also protect them from all future visual effects to the maximum extent possible, World Heritage Sites are nominated by governments that are a party to a 1972 UNESCO treaty, Under this treaty, the United States government voluntarily accepted "the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations" of these World Heritage Sites and committed to "do all it can to this end, to the utmost of its own resources" (World Heritage Convention, Article 4), We believe that the treaty obligations of the United States as a signatory to the World Heritage Convention impose an additional duty on the BLM to give special consideration to Chaco, We encourage the agency to use all possible innovative approaches to avoid adverse effects to this World Heritage Site, such as creating buffer zones to protect it. Consultation with all interested parties, and especially with the Indian tribes who have special expertise in assessing effects to the qualities that make these sites sacred to them, is critical to crafting innovative management approaches for these sites, BLM has both the ability and the responsibility to protect the unique characteristics of Chaco that have made it so profoundly significant to Indian tribes as well as worthy of national and international recognition.</p>	<p>See Sections 2.4, 2.5, 2.6, 2.7, and Appendix A.</p>
<p>The attempt to manage the GRRA with a VRM designation of Class III is unacceptable as a top tier recreation destination in the BLM/FFO with a NLCS component.</p>	<p>See Section 2.7.</p>
<p>3. Affected Environment</p>	
<p>Key resource values that are directly related to visual resource management, but are not addressed in the RMPAIEA include: daytime scenic character....</p>	<p>See Section 3.1. for a description of Visual Resources. Daytime scenic character is not described for Chaco Culture NHP because the BLM is not responsible for nor does it have the authority to conduct inventories on lands that it does not administer. A description of daytime scenic character for Chaco Culture NHP was not provided.</p>
<p>We note that the draft RMPA/EA fails to address the scenic quality assessment that was conducted at CCNHP in May 2011.</p>	<p>The BLM visited Chaco Culture NHP in May 2011 to identify key observation points in order to develop a viewshed analysis and to conduct a mock contrast rating in order to demonstrate BLM's process for analyzing impacts to visual resources on a project-specific level. Scenic quality assessments were not conducted.</p>
<p>NPS staff have stated that contractors working on the VRM project visited the Park but it is not clear what information was generated from those visits and how, if at all, it was included in this document.</p>	<p>The contractor conducting the VRI did not visit Chaco Culture NHP. The 2011 visit by BLM to Chaco Culture NHP is described above.</p>

Comment	Response
<p>We do not understand why the VRI (not found on the BLM website) included vast tracts of non-BLM land (apparently over 3,000,000 acres) but did not include any of the Chaco Culture National Historical Park.</p>	<p>The BLM is not responsible for nor does it have the authority to conduct inventories on lands that it does not administer. For display and analysis purposes the BLM may make a projection that non-BLM managed lands have the same VRI Class as nearby BLM-managed lands. The BLM did not make such projections onto lands managed by the NPS as they are responsible for inventorying the lands under their jurisdiction.</p>
<p>With participation of NPS staff in the sensitivity level rating process, better consideration of NPS resources would have been identified. In reviewing the VRI data the sensitivity values near Chaco and other cultural resources appears to have been undervalued. Other factors entering into the Sensitivity rating include the designation of Chaco Culture NHP and associated cultural sites as a World Heritage Site and the large expanses of relatively undisturbed landscape as identified in the VRI. The lands surrounding Chaco Culture NHP provide additional historical context and significance to the park itself, the park's World Heritage designation, and the park's cultural and ethnographic values. Surrounding lands outside the park boundary also contribute to the integrity of setting and feeling of the park cultural landscape. With these considerations a sensitivity rating of High in proximity to Chaco Culture NHP and potentially the Great North Road would be appropriate. The rating area would include portions of Sensitivity Level Rating Units (SLRU) 29 (Tanner Lake) and 30 (Sisnathyel), as it is not required that SLRUs follow the same boundaries as Scenic Quality Rating Units (SQRU). This rating would result in a VRI Class III and a reduced potential impact to the visual landscape if the Visual Resource (VRM) class retained the VRI values.</p>	<p>A sensitivity rating was conducted with NPS staff on July 2, 2013. The inventory data has been updated as appropriate. See Section 3.1.</p>
<p>Further, the document does not include the corresponding viewshed maps for Chaco Culture NHP or any substantive discussion of scenic character.</p>	<p>See Figure 10 for a map of viewsheds. See Section 3.1 for a discussion of visual resources including scenic quality, sensitivity, and VRI. See Sections 3.1.3 and 3.3.3 for discussions regarding Chaco Culture NHP.</p>
<p>Although the BLM now claims (April 24 meeting at Chaco Culture NHP) to have conducted Key Observation Point analysis associated with areas including and surrounding Chaco Culture NHP, inventory methodologies and results have not been adequately shared with us or other interested parties nor has BLM completed a Viewshed Analysis. Any decisions concerning VRM designations on BLM lands in proximity to Chaco Culture NHP should be deferred until the Viewshed Analysis is complete and results have been presented to the public by the BLM.</p>	<p>Viewshed analysis was completed in the summer of 2011. This information was displayed during a presentation of the VRM RMPA/EA during a consultation meeting with the Chaco Alliance on February 26, 2013. The viewshed analysis was also displayed during the Chaco Alliance meeting on April 24, 2013. Sections 4.3 and 4.5 contain discussion of the viewshed analysis as it relates to impacts to Chaco Culture NHP.</p>

Comment	Response
Key resource values that are directly related to visual resource management, but are not addressed in the RMPA/EA include: ...traditional cultural properties....	See Section 3.1.1.
Include cultural landscapes in addition to archeological sites and TCPs. The discussion of archeological sites and TCPs is quite detailed; however, cultural landscapes are not mentioned.	See Section 3.1.2.
Integrity of setting is identified as one of the qualities affecting the significance of a site and its eligibility for listing on the National Register of Historic Places. Suggest rewording to reflect effects to retaining the historic integrity of the overall environment i.e. "Integrity of setting is a measure of the historic integrity of the environment within and surrounding a landscape or site."	Text revised.
CCNHP was named UNESCO World Heritage Site on December 8, 1987. The World Heritage Committee recognized the authenticity and integrity of the current setting and context of the Chaco system, which are key reasons why this park is globally significant and so exceptional as to transcend national boundaries and to be of lasting importance to present and future generations of all humanity. The designation includes Aztec Ruins National Monument as well as five Chacoan outliers managed by the BLM.	See Sections 3.1.3 and 3.1.4.
Key resource values that are directly related to visual resource management, but are not addressed in the RMPAIEA include: ...World Heritage site designation.	See Section 3.1.4.
Various forms of recreation (active and passive) also occur on adjacent lands, such as those at Chaco Culture NHP. Consider adding a brief discussion about recreation on adjacent lands.	See Section 3.3.2.
In evaluating whether unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas exist, BLM cannot deny that there are unique characteristics in the FFO's jurisdiction including Chaco Culture NHP World Heritage site and the presence of the Old Spanish Trail National Historic Trail in the northern portion of the field area. Chaco Culture NHP is a World Heritage Site of extraordinary cultural significance threatened by the type of energy development activities contemplated in BLM's EA.	See Sections 3.1.3, 3.3.3, and 3.5.
The draft RMPA/EA should incorporate new resource information provided in our comments and a more detailed analysis of potential effects on CCNHP.	Section Sections 3.1.3, 3.3.3, 4.3, and 4.5.
4. Environmental Consequences	
The Draft VRM/RMPA EA fails to address impacts to significant resources in the BLM/FFO that would be adversely affected by the Preferred Alternative for VRM.	See Section 4.
Instead of just tables, maps showing the analysis are needed since the amendment is a spatial allocation of the management classes. For example in Table 13 there are 6,000 acres of land that have Scenic Quality Rating A and are proposed to have a VRM Class IV. It would be helpful for analysis to understand where those acres are located because those are apparently some highly scenic lands that could have substantial visual impacts if managed as Class IV. Similar maps for the other tables would be helpful as well as a rationale for the proposed VRM class when it could result in a substantial change in the visual landscape.	See Figure 11 through Figure 25.

Comment	Response
<p>Section 4.2,1 Cumulative Impacts says: "The 2009 VRI [Visual Resource Inventory] 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." The ACHP believes this is a serious shortcoming that may render the VRI inadequate and incomplete, This also appears to contradict the stated purpose of the BLM VRM system at Section 1.1: "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," In our opinion, the BLM cannot purport to be adequately managing the visual environment if it fails to take the most significant historic property, Chaco Culture NHP, within the view shed into account.</p>	<p>The BLM is not responsible for nor does it have the authority to conduct inventories on lands that it does not administer. For display and analysis purposes the BLM may make a projection that non-BLM managed lands have the same VRI Class as nearby BLM-managed lands. The BLM did not make such projections onto lands managed by the NPS as they are responsible for inventorying the lands under their jurisdiction. See Sections 4.3 and 4.5 for discussions of impacts to Chaco Culture NHP.</p>
<p>Under Section 106 of the National Historic Preservation Act (NHPA), federal agencies must apply the criteria of adverse effect when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. Accordingly, a BLM cultural resource manager must take into consideration the indirect effects of an undertaking on historic properties that may be within the viewshed of an undertaking even if the undertaking is not located on BLM managed lands.</p>	<p>BLM consulted with the SHPO pursuant to Section III of the BLM/SHPO Protocol Agreement that states, "SHPO will be invited to act as a preparer/reviewer when NM BLM writes or prepares EISs, large-scale management plans, wild and scenic river plans, or wilderness management plans." This effort falls under the category of a large-scale management plan. See Section 4.3 for a discussion of impacts to cultural resources.</p>
<p>There is continued dialogue over the proper definition of the Area of Potential Effect (APE) being utilized in defining the Greater Chaco Landscape and the potential impacts from energy development in the region. Thus, BLM must consider these impacts in making VRM designations in the region, including Key Observation Points analysis from all components of the UNESCO Chaco World Heritage Site throughout the BLM/FFO field area.</p>	<p>See Section 4.3.</p>
<p>The draft EA states that the purpose of the BLM VRM system is to manage the quality of the visual environment and to reduce the visual impact of development activities while maintaining effectiveness in the BLM's resource programs. In my opinion, the VRM is flawed because it does not take into consideration areas that are located adjacent to BLM managed lands, such as Chaco Culture National Historical Park (Chaco). How can the VRM assist BLM's cultural resource program if it does not consider lands that are adjacent to BLM?</p>	<p>See Section 4.3.</p>

Comment	Response
<p>Although Chaco Culture NHP was excluded from the VRI analysis, any actions/alterations to lands outside of the park boundary have the potential to impact viewsheds from KOPs within the park. Additionally, impacts to viewsheds have the potential to diminish integrity of the park cultural landscape. Cumulative impacts from adjacent lands such as Chaco Culture NHP should be considered.</p> <p>Landscapes and viewsheds are identified as integral components of places of cultural importance to Native American tribes and sites with potential interpretive value for the public (4.3, p. 35). In addition to having importance to the public as an educational value, acknowledge that historic resource have intrinsic values that could also be affected by impacts to the viewshed of the resources. VRM Class IV adjacent to Chaco Culture NHP and cultural sites associated with the World Heritage Site would allow for high level of potential impact to the visual setting for these cultural resources. The landscape surrounding sites can be just as significant as the sites though the scenic values may not be distinctive or have special visual appeal. The level of potential change would reduce the integrity of the setting and affect the National Register significance and eligibility of Chaco Culture NHP and other cultural sites. Additionally Chaco's specific World Heritage values of sweeping, unimpaired views, clean air, and no intrusions of man-made noise or light would be affected by a high level of development near the World Heritage sites.</p> <p>Consideration should be given these sites and landscapes as if they were non-BLM ACECs and similar management considerations applied.</p>	<p>See Sections 4.3 and 4.5.</p>
<p>Additionally, because the Park was not included in the VRI, it was also excluded from the cumulative effects analysis, which is an inappropriate outcome that cascades from the decision to not include the Park in the VRI in the first place.</p>	<p>See Sections 4.3 and 4.5</p>
<p>The EA also fails to include analysis of impacts to the visual landscape from key observation points (KOP) that were identified and reviewed with BLM subsequent to the VRI in 2009.</p>	<p>See Sections 4.3 and 4.5</p>
<p>Please note that the numbers 4.4.1 to 3 are used twice in the document.</p>	<p>Text revised.</p>
<p>The data may not be available in GIS format for comparison by overlay mapping, but paper forms and narrative information prepared for the previous inventory can still be used to describe the previous conditions and make a qualitative assessment of how the landscape has changed. A narrative description can be just as valuable as a GIS derived quantitative comparison with the acknowledgement that the data cannot be compared acre to acre.</p>	<p>The map provided with 1980 VRI is hand drawn with no geographic identifiers such as topography, cities, roads, rivers, or even a boundary that alludes to the extent of the inventory. While some areas may be discernible through the narrative or because they are so large as to provide some level of confidence as to the area, without defined boundaries, comparisons to the 2009 VRI would be mostly guesswork.</p>

Comment	Response
<p>The BLM's responsibility in preparation of an EA for the VRM/RMPA is to concisely prove that activities, ... described in the proposed action will not adversely affect or cause the destruction of scientific, cultural, or historic resources, including those listed in or eligible for listing in the National Register of Historic Places (40 CFR) 1508.27 (b)(8)) The Draft VRM RMPA, as currently crafted, cannot legally defend the concept that scientific, cultural and/or historic places of significance would not be adversely affected by the proposed action. The Chaco World Heritage Site and OSTNHT are examples of significant cultural resources that are insufficiently analyzed in BLM's EA. In fact the VRM RMPA EA states, 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 (bold for emphasis). (EA, page 23)</p> <p>The BLM's own EA acknowledges the importance of National Register of Historic Places integrity of setting and then ignores BRM analyses that pertain to this integrity of setting when analyzing VRM. This needs to be immediately fixed in the next NEPA document for VRM RMPA analysis.</p>	<p>See Sections 4.3 and 4.7. BLM-managed lands listed on the National Register of Historic Places are managed as Cultural ACECs.</p>
<p>We find that the current RMPA/EA fails to address the effects on the visual...recreational resources of Chaco Culture National Historical Park. Any actions/alterations to lands outside of the boundary of Chaco Culture NHP have the potential to impact recreation activities from KOPs within the park. Passive recreation, particularly that of viewing scenery and the surrounding landscape would be potentially impacted.</p>	<p>See Section 4.5.</p>
<p>Section 4.4,3 Summary of Impacts says: "Under all alternatives, areas open to leasable mineral development under standard terms and conditions would be managed as VRM Class III or IV," This restriction to future lease sales seems unreasonable, As previously stated, information about new visual effects needs to be taken into account in the lands still available for lease sales and not restricted based on decisions made years before this information was available.</p>	<p>Sentence removed.</p>
<p>The draft RMPA/EA should incorporate new resource information provided in our comments and a more detailed analysis of potential effects on ...the Old Spanish Trail National Historic Trail.</p>	<p>See Section 4.7.</p>
<p>5. Supporting Information</p>	
<p>The EA identifies the SJCA and Guardians as Interested Parties, but does not include the Chaco Alliance. Under the National Historic Preservation Act, the SJCA and the CA are consulting parties with respect to BLM's oil and gas leasing activities within a 10-mile radius of Chaco Culture National Historical Park (Chaco Culture NHP); therefore, the CA should have been included as an interested party.</p>	<p>See Section □</p>
<p>Please add National Park Service to the list of government entities. "Chaco Cultural National Historical Park Superintendent Barbara West" should be changed to "Chaco Culture National Historical Park Superintendent Larry Turk."</p>	<p>See Section □.</p>

Comment	Response
Please note that although the State Historic Preservation Office (SHPO) is listed as an interested party, this office does not have record of being notified by the Farmington FO of this draft EA.	An email was sent to SHPO Jan Biella from BLM archaeologist Jim Copeland notifying her of the availability of the Draft RMPA/EA on April 17, 2013 at 9:35 am. A copy of this email is contained in the project file.
The VRM RMPA purports to tier to the 2003 RMP completed for the BLM/FFO and a Visual Resource Inventory prepared in 2009 by a government contractor (Otak, Inc.). A review of the EA Chapter 5 Supporting Information, 5.1 Tribal Consultation and 5.2 Interested Parties (EA pages 44-46) provides evidence of a laundry list of consulted entities with no factual responses or indication of where these entities stand on the VRM analysis conducted by BLM. Several of the key consulting parties or entities listed in Chapter 5 have retired or been replaced at the time of the April 15, 2013 Draft EA distribution. Specific examples are Chaco Culture NHP Superintendent Barbara West, who retired in January 2013, and New Mexico Historic Preservation Division Deputy State Historic Preservation Officer Jan Biella, who has been replaced by a new State Historic Preservation Officer.	Even though these individuals may not currently be in the positions identified, the BLM consulted with them on the project. The section is not meant to discuss their position on the project, rather it displays the tribes, individual, organizations, and agencies consulted. Comments on the proposed action are summarized in the Scoping Report and Section 1.5, as well as this table.
At a recent meeting at Chaco Culture NHP on April 24, 2013 attended by BLM and all organizations on this comment letter, it became increasingly clear that the BLM VRM/RMPA EA did not adequately incorporate consultations with interested parties and ignored lands not under the jurisdiction of BLM. The listing of tribes consulted in Chapter 5 is impressive. Please incorporate all responses from tribes in the Final VRM/RMPA EA. Please insure that all impacted Navajo Nation Chapters have been adequately consulted if their lands are impacted by the proposed action of the VRM/RMPA and all Chapter responses incorporated into the EA.	See Section 5.1.
Other	
Although the Park is in the planning area, it is omitted from maps in the EA or appears as an unmarked “donut hole.”	Figures revised.
These acronyms (NSO, CSU) do not appear to be spelled out anywhere in the EA.	These acronyms are defined in the text and a List of Acronyms has been added to the beginning of the document.
The failure to include Mr. Sweeten’s expertise in preparation of the VRM/RMPA EA is inexcusable. Please consult with Mr. Sweeten and incorporate the OSTNHT into a legally defensible draft EA concerning trail resources and recreation areas (GRRRA) that deserve protection, including real VRM class designation.	The Farmington Field Office has engaged Rob Sweeten in the development of this document.
Since the decisions to be made by the BLM on VRM in proximity to Chaco Culture NHP are integral to Department of the Interior planning (including National Park Service), we request formal consultation by BLM with NPS, the New Mexico SHPO and all affected tribes on a revised Draft VRM RMPA EA to be redistributed for public comment.	See Section 5.1.
We ask that the BLM consider moving to an Environmental Impact Statement (EIS) to address potential significant effects.	See Section 4 for a discussion of impacts. The deferral of decisions regarding lands surrounding Chaco Culture NHP has been considered and will be discussed in the Decision Record.

Comment	Response
<p>Another tool that has been developed recently and directs agencies to communicate early and often about air quality related to oil and gas development is The Memorandum of Understanding Among the US Department of Agriculture, US Department of the Interior, and US Environmental Protection Agency, Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process, signed June 23, 2011. This should be referenced in the decision document for the RMP A and should be considered a part of addressing air quality impacts in the leasing process.</p>	<p>Per Section II.A.1, the scope of the MOU is focused on "analyzing and addressing air quality impacts (i.e., direct, indirect, and cumulative) associated with Federal decisions relating to on-shore oil and gas planning, leasing, or field development, including exploration, development, and production." Per Section V.B, "When preparing an EIS for a Federal oil and gas decision, a Lead Agency will follow the procedures in this MOU and the Appendix for the air quality and AQRVs analyses. When preparing an Environmental Assessment for a Federal oil and gas decision where air quality or AQRVs are issues warranting NEPA analysis, the Lead Agency will consider following the procedures established in this MOU and the Appendix." The MOU does not apply because the VRM RMPA/EA does not address oil and gas decisions and is not being prepared as an EIS.</p>
<p>The BLM Programmatic Agreement for Meeting its Responsibilities Under the National Historic Preservation Act (NHPA) is out of date and is currently the subject of protocol revision. A new statewide protocol to comply with Section 106 of the NHPA has not been finalized for New Mexico. However, even if a new statewide protocol becomes final, because of the variety of threats to Chaco Culture NHP and the Greater Chaco Landscape from oil and gas development, BLM must engage in a stand-alone (rather than programmatic) consultation with the SHPO to assess, mitigate, and avoid these threats. Comments from the Hopi Tribe and many other tribes attest to the cultural significance of the region.</p>	<p>BLM consulted with the SHPO pursuant to Section III of the BLM/SHPO Protocol Agreement that states, "SHPO will be invited to act as a preparer/reviewer when NM BLM writes or prepares EISs, large-scale management plans, wild and scenic river plans, or wilderness management plans." This effort falls under the category of a large-scale management plan.</p>

End of document.