



**U.S. Department of the Interior  
Bureau of Land Management**

**Record of Decision for the  
SunZia Southwest Transmission Project**

**Utility Right-of-Way**

**and**

**Mimbres Resource Management Plan Amendment and  
Socorro Resource Management Plan Amendments**

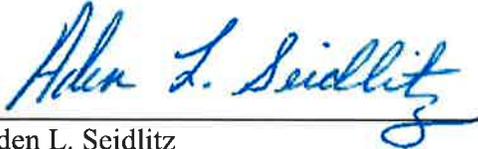
New Mexico State Office  
Attention: Adrian Garcia  
PO Box 27115  
Santa Fe, NM 87502-0115

January 2015

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## FINAL AGENCY ACTION

It is my decision to approve an electric transmission line right-of-way grant NM - 114438 to SunZia Transmission, LLC, subject to the terms, conditions, stipulations, POD, and environmental protection measures developed by the DOI, as reflected in this ROD. In addition, it is my decision to amend the Socorro RMP and the Mimbres RMP for nonconforming actions resulting from the granting of the right-of-way for the Project.



Aden L. Seidlitz  
Acting New Mexico State Director

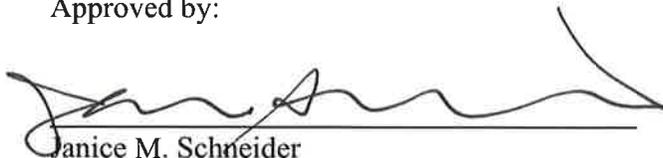


Raymond Suazo  
Arizona State Director

## ASSISTANT SECRETARY APPROVAL

I hereby approve these decisions. My approval of these decisions constitutes the final decision of the DOI and, in accordance with the regulations at 43 CFR § 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4. Any challenge to these decisions, including the BLM Authorized Officer's issuance of the ROW grant, as approved by my decision, must be brought in the Federal District Court.

Approved by:



Janice M. Schneider  
Assistant Secretary  
Land and Minerals Management

JAN 23 2015

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## LIST OF ACRONYMS

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AC	Alternating current
ACHP	Advisory Council on Historic Preservation
AFB	Air Force Base
AGFD	Arizona Game and Fish Department
Applicant or SunZia	SunZia Transmission, LLC
BA	Biological Assessment
BLM	Bureau of Land Management
BMP	Best Management Practices
BO	Biological Opinion
CFR	Code of Federal Regulations
CIC	Compliance Inspection Contractor
CMA	Cooperative Management Area
DC	Direct current
DoD	Department of Defense
DOI	Department of the Interior
EA	Environmental Assessment
EMF	Electric and magnetic fields
EPA	Environmental Protection Agency
EPAct	Energy Policy Act of 2005
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FLPMA	Federal Land Policy and Management Act of 1976
FONSI	Finding of No New Significant Impacts
HPTP	Historic Properties Treatment Plan
HTS	High temperature superconducting (cables)
I-10	Interstate 10
I-25	Interstate 25
IEEE	Institute of Electrical and Electronics Engineers
kV	Kilovolt
Mitigation Proposal	Mitigation measures proposed by Department of Defense
MW	Megawatt
NEPA	National Environmental Policy Act of 1969
NESC	National Electric Safety Code

NHPA	National Historic Preservation Act
NMDGF	New Mexico Department of Game and Fish
NO <sub>2</sub>	Nitrogen dioxide
NOA	Notice of Availability
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
PA	Programmatic Agreement
PM <sub>10</sub>	Particulate matter less than 10 micrometers in diameter
PM <sub>2.5</sub>	Particulate matter less than 2.5 micrometers in diameter
POD	Plan of Development
PRMP	Paleontological Resources Monitoring Plan
Project	SunZia Southwest Transmission Project
RMP	Resource Management Plan
ROD	Record of Decision
SHPO	State Historic Preservation Office
SR	State Road
SRMA	Special recreation management area
TEP	Tucson Electric Power
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
VRM	Visual resource management (BLM)
WSA	Wilderness Study Area
WSMR	White Sands Missile Range
WWEC	West-wide Energy Corridor

## SUMMARY

SunZia Transmission, LLC (Applicant, or SunZia) submitted an Application for Transportation and Utility Systems and Facilities on Federal Lands (Standard Form 299) to the Bureau of Land Management (BLM) on September 11, 2008. The Applicant proposes to construct and operate two 500-kilovolt transmission lines and related facilities in a corridor located on federal, state, and private lands that is approximately 515 miles long between central New Mexico (Lincoln County) and central Arizona (Pinal County).

The BLM considers the Applicant's right-of-way application pursuant to the authority of the Secretary of the Interior to "grant, issue, or renew rights-of-way...for generation, transmission, and distribution of electric energy" (43 U.S.C. § 501(a)(4); 43 CFR Part 2800). This Record of Decision (ROD) approves the issuance of a right-of-way grant for the construction, operation, and maintenance of the proposed SunZia Southwest Transmission Project (Project) facilities on federal lands the BLM administers under certain terms and conditions. In addition, the BLM has chosen to amend the Socorro Resource Management Plan (RMP) and the Mimbres RMP for nonconforming actions resulting from the granting of the right-of-way for the proposed Project.

In accordance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) NEPA regulations, the Department of the Interior's (DOI) NEPA regulations, and other applicable authorities, the BLM analyzed the environmental impacts of the proposed Project and a reasonable range of alternatives. The Notice of Availability (NOA) of the Draft Environmental Impact Statement (EIS) was published in the *Federal Register* on May 29, 2012, and the Final EIS NOA was published on June 14, 2013. The BLM has selected the Preferred Alternative, as described in the 2013 Final EIS, incorporating certain additional mitigation measures as described in Section 2.4 of this ROD. The Preferred Alternative would authorize a right-of-way grant to the Applicant to use federal lands the BLM administers to allow for the Applicant's proposed Project with a lease term of 50 years, subject to a new grant of renewal.

Approval of the Preferred Alternative requires plan amendments to the Mimbres and Socorro RMPs to address non-conformance pursuant to Section 202 of FLPMA. The BLM analyzed proposed plan amendments as part of NEPA process and also followed the procedural requirements for plan amendments under the BLM's planning regulations (43 CFR Subpart 1610). This ROD documents the rationale for approval of both the right-of-way grant and Mimbres and Socorro RMP plan amendments.

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# 1 INTRODUCTION/BACKGROUND

On September 11, 2008, SunZia Transmission, LLC the Applicant or SunZia submitted an Application for Transportation and Utility Systems and Facilities on Federal Lands (Standard Form 299) to the Bureau of Land Management (BLM). The Applicant proposes to construct and operate the SunZia Southwest Transmission Project (Project), which would include two 500-kilovolt (kV) transmission lines located on federal, state, and private lands between central New Mexico and central Arizona.

The Project would originate at a new substation in Lincoln County, New Mexico, and terminate at the Pinal Central Substation in Pinal County, Arizona. The Project would pass through Socorro, Sierra, Luna, Grant, and Hidalgo counties in New Mexico; and Cochise, Greenlee, Graham, and Pima counties in Arizona. New substations would also be constructed in Luna, Hidalgo, and Graham counties. The Project is approximately 515 miles in length, and would require a right-of-way crossing approximately 183 miles of BLM lands in Arizona and New Mexico. The remainder of the route would cross Arizona and New Mexico state trust lands (220 miles) and lands owned by private or other entities (112 miles).

In accordance with Section 202 of the Federal Land Policy and Management Act (FLPMA), BLM lands are managed through resource management plans (RMPs) by BLM field or district offices which establish the goals and objectives for the management of the resources that could be affected by the proposed action. Proposed projects must conform with the management decisions and objectives of applicable RMPs as required by 43 CFR § 1610.5-3. If a proposed project is not in conformance, the BLM can either choose to deny the project, adjust the project to conform to the RMP, or amend the plan to ensure conformance.

The Project area includes lands administered by five BLM field offices (Rio Puerco, Socorro, Mimbres, Safford, and Tucson) and two district offices (Las Cruces and Gila). As explained further herein, granting the right-of-way for portions of the Selected Alternative would not conform to the Socorro RMP and the Mimbres RMP. As a result, the BLM considered whether denying the project, adjusting the project, or amending the relevant RMPs to address the nonconformance is most appropriate. The BLM has determined to amend each of these two RMPs, as identified and explained in Section 2.3 of this Record of Decision (ROD).

The BLM is the lead federal agency for preparing the Environmental Impact Statement (EIS), and published its Notice of Intent (NOI) to prepare the EIS in the *Federal Register* on May 29, 2009. The Notice of Availability (NOA) for the Draft EIS and RMP Amendments for the SunZia Southwest Transmission Project was published in the *Federal Register* on May 29, 2012. The NOA for the Final EIS and RMP amendments was published in the *Federal Register* on June 14, 2013.

After the Final EIS and Proposed RMP amendments document was issued, the Department of Defense (DoD), based on unresolved issues identified during the NEPA process relating to the project's potential impact to military operations and readiness, objected to the construction and operation of the proposed overhead transmission lines in an area north of White Sands Missile Range (WSMR) known as the Northern Call-Up Area. Following discussions between DoD, Department of the Interior (DOI), and the BLM, and the completion of a study developed by the

Massachusetts Institute of Technology Lincoln Laboratories, the DoD proposed mitigation measures that would effectively minimize impacts on military readiness and operations at White Sands Missile Range (Mitigation Proposal), which are described in Section 2.4 of the ROD. The BLM utilized an environmental assessment (EA) to examine whether the environmental impacts associated with the component of the Mitigation Proposal involving the burial of segments of the transmission line in the Northern Call-Up Area would require BLM to supplement the Final EIS. Based on the findings of the BLM's EA, the BLM concluded that this portion of the Mitigation Proposal would have no new significant impacts as compared to the Preferred Alternative analyzed in the Final EIS and therefore no supplemental EIS was required.

## **1.1 BLM'S PURPOSE AND NEED**

As described in Chapter 1.1 of the Final EIS, the BLM's purpose and need is to respond to SunZia's proposal to use BLM-managed lands. The Secretary of the Interior is authorized to "grant, issue, or renew rights-of-way...for generation, transmission, and distribution of electric energy" (43 U.S.C. § 501(a)(4); 43 CFR Part 2800). Pursuant to Section 1702(c) of the Federal Land Policy and Management Act (FLPMA), the BLM must manage public lands for multiple-use. Consistent with the BLM's multiple-use mandate, the purpose and need for the BLM's action is to approve, deny, or approve with modifications SunZia's right-of-way application to construct, operate, and maintain the transmission line on federal lands in compliance with FLPMA, the BLM's right-of-way regulations (43 CFR Part 2800), and other applicable federal laws and policies. The purpose and need is used to formulate a reasonable range of alternatives to be considered in the EIS.

Pursuant to 43 CFR § 2801.2, the BLM's objective is to grant rights-of-way and to control their use on public lands in a manner that: (a) protects the natural resources associated with public lands and adjacent lands, whether private or administered by a government entity; (b) prevents unnecessary or undue degradation to public lands; (c) promotes the use of rights-of-way in common, considering engineering and technological compatibility, national security, and land use plans; and (d) coordinates, to the fullest extent possible, all BLM actions under the regulations in this part with state and local governments, interested individuals, and appropriate quasi-public entities.

The BLM also considers as the purpose and need for the action infrastructure and energy legislation and policies. Several legislative directives and policies recognize the need for increased transmission siting and permitting processes to better keep pace with the necessary infrastructure upgrades associated with projected development and electrical load growth. The Energy Policy Act of 2005 (EPAcT) recognizes the disparity between energy supply and demand and the need for additional transfer capability, and establishes a number of associated agency directives and deadlines. The EPAcT addresses the need for transmission facilities, through agency directives, to (1) establish designated energy right-of-way corridors on federal land (sometimes now referred to as Section 368 corridors), via interagency collaboration; (2) ensure ongoing efforts to identify and designate additional corridors, as needed; (3) expedite applications to construct or modify transmission facilities; (4) identify areas of transmission congestion; and (5) amend relevant land use plans and RMPs to include new and existing energy right-of-way corridors.

President Obama also issued Executive Order 13604 (Mar. 22, 2012), which acknowledged the critical need for improving and investing in infrastructure, including transmission, as important to maintaining the Nation's competitiveness. The BLM recognizes the need for upgraded and new electricity transmission and distribution facilities to improve reliability, relieve congestion, and enhance the capability of the national grid to deliver electricity, as directed in the EPAct and reflected in Executive policies.

The need for upgraded infrastructure to carry renewable and traditional energy also has been a focus of recent economic stimulus legislation and policies. As President Obama discussed in reference to the proposed American Recovery and Reinvestment Plan, which was ultimately signed into law<sup>1</sup>, "to accelerate the creation of a clean energy economy, we will double our capacity to generate alternative sources of energy like wind, solar, and biofuels over the next three years [and build] transmission lines to convey this new energy from coast to coast" (Obama 2009). The Secretary of the Interior issued Secretarial Order 3285A (Salazar 2010), making the production, development, and delivery of renewable energy a top priority, along with the energy goals of the EPAct. In June 2013, the President issued a Presidential Memorandum (Obama 2013) requiring modernization of our nation's electric grid through improved siting, permitting and review, as critical to among other things, our efforts to make electricity more reliable and economic, promote clean energy sources and enhance energy security, and the Climate Action Plan setting a goal of developing 20,000 MW of renewable energy on public lands by 2020 (Executive Office of The President 2013). The Project would encourage the development of additional renewable generation sources.

The BLM must consider existing RMPs in its decision to issue a right-of-way grant, in accordance with 43 CFR § 1610.5-3. RMPs allocate public land resource use and establish management objectives. Portions of the proposed transmission line alternatives would not conform with certain RMP management objectives. As such, proposed RMP amendments were analyzed in the Draft and Final EIS (BLM 2012 and 2013a, respectively) pursuant to 43 CFR § 1610.5-5. Specifically, the proposed Project does not conform with visual resource management (VRM) objectives or would cross areas designated as right-of-way avoidance areas in the Socorro and Mimbres RMPs (BLM 2010a and 1993, respectively), and require amendments to these plans for portions of the Project. To the extent practicable and consistent with the laws governing the administration of the public lands, the BLM must coordinate the land use inventory, planning, and management activities with other federal departments and agencies and of the states and local governments, in accordance with Section 202(c)(9) of the FLPMA.

## **1.2 DECISION**

The BLM has decided to grant the Applicant a right-of-way to construct, operate, and maintain the Project facilities on BLM-managed lands with terms and conditions as explained herein. In addition, the BLM has chosen to amend the Socorro RMP and the Mimbres RMP for nonconforming actions resulting from the granting of the right-of-way for the Project. The rationale for these decisions is documented in full in Sections 2 and 3 of this ROD.

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<sup>1</sup> American Recovery and Reinvestment Act of 2009 (26 USC 1.)

### **1.3 SELECTED ALTERNATIVE**

The BLM selects the Preferred Alternative as described in the 2013 Final EIS, incorporating additional mitigation measures as described in Section 2.4 of this ROD. The Selected Alternative grants the Applicant a right-of-way across the federal lands the BLM administers to allow for the Applicant's proposed Project for a right-of-way grant with a term of 50 years, subject to a new grant of renewal.

The transmission line route, shown in Figure 1, would originate at a new substation (SunZia East) in Lincoln County, New Mexico, and terminate at the Pinal Central Substation in Pinal County, Arizona. The Project would be located in Lincoln, Socorro, Sierra, Luna, Grant, Hidalgo, and Torrance counties in New Mexico; and Graham, Greenlee, Cochise, Pinal, and Pima counties in Arizona. The BLM Preferred Alternative (the Selected Alternative) is approximately 515 miles long, with approximately 183 miles on BLM-administered public lands.

### **1.4 PUBLIC INVOLVEMENT**

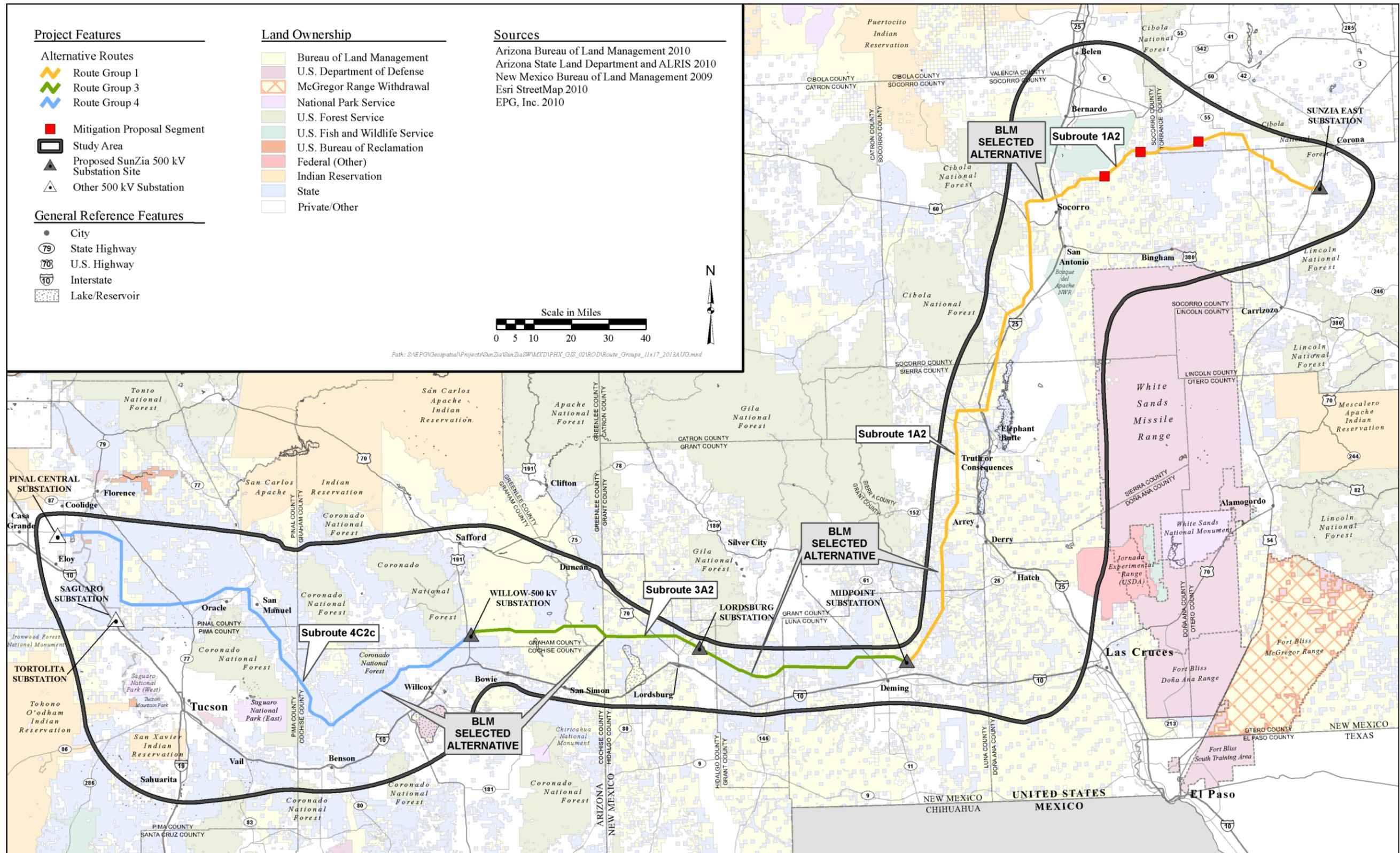
Public review and comment on the SunZia Southwest EIS was extensive. Three rounds of public scoping were conducted in May 2009, October 2009, and April 2010, including 14 separate scoping meetings and over 1,400 public comments were received. More information on the public scoping process can be found in Section 5.2 of the Final EIS. During the comment period on the Draft EIS, the BLM held 10 public open house meetings and received over 2,000 individual comments. Public comments and responses can be found in Appendix J of the Final EIS. The BLM also allowed for a 30-day protest period following the publication of the Final EIS.

Additionally, the BLM allowed for public review of the EA considering the Mitigation Proposal of burying a portion of the transmission lines. A comment period on the EA was conducted between November 28 and December 29, 2014, and an additional 16 public comments were received.

The BLM has reviewed and considered the comments received during each of these comment periods in reaching the decision to grant the right-of-way application, subject to BLM mitigation measures.

### **1.5 CONSULTATION WITH OTHER AGENCIES**

Fourteen cooperating agencies participated in the preparation of the EIS: the U.S. Army Corps of Engineers (USACE); Department of the Army, Fort Bliss; Department of the Army, WSMR; U.S. Air Force, Holloman Air Force Base (AFB); U.S. Fish and Wildlife Service (USFWS); U.S. National Park Service (NPS); DoD Siting Clearinghouse, Office of the Deputy Under Secretary (Installations and Environment); New Mexico State Land Office; New Mexico Spaceport Authority; Arizona State Land Department; Arizona Game and Fish Department (AGFD); Arizona Department of Transportation; Department of the Army, Fort Huachuca; and Bureau of Indian Affairs.



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Consultation and coordination with federal, state, local and intergovernmental agencies, organizations, American Indian tribes, and interested groups of individuals was conducted to ensure that data was gathered and employed for analyses and that agency and public sentiment and values were considered and incorporated into decision making. Formal and informal efforts were made by the BLM to involve these groups in the scoping process and in subsequent public involvement activities, formal consultation, and review of the EIS.

Consultation with the USFWS is required under Section 7 of the Endangered Species Act (ESA) when a project that is carried out, funded, or authorized by a federal agency may affect species listed under the ESA. The BLM requested early input from the USFWS to identify ESA-listed species and other sensitive biological resources and prepared a Biological Assessment (BA) in consultation with USFWS. The consultation was completed with the issuance of the Biological Opinion (BO) on November 13, 2013. A detailed description of the Section 7 consultation is located in Section 5.1 of this ROD.

The BLM initiated consultation in accordance with the National Historic Preservation Act (NHPA), 54 U.S.C. § 306108 (as recodified)<sup>2</sup> to consider the effects of this undertaking on historic properties (i.e., properties listed in or eligible for the National Register of Historic Places (NRHP)). The Section 106 consultation process included tribes, State Historic Preservation Offices (SHPOs) in Arizona and New Mexico, Advisory Council on Historic Preservation (ACHP) and other agencies and organizations. The consultation was completed with the execution of the Programmatic Agreement (PA) on December 17, 2014. A detailed description of the Section 106 consultation is located in Section 5.2 of this ROD.

## **2 DECISION**

### **2.1 AUTHORITY**

The BLM will issue a right-of-way for the transmission line and associated facilities addressed in the EIS, including the mitigation measures considered in the EA, pursuant to Title V of the FLPMA (43 U.S.C. § 1761 et seq.) as amended. The FLPMA provides the BLM with discretionary authority to grant rights-of-way on lands the BLM administers, taking into consideration impacts on natural and cultural resources (including historical resources). In doing so, the BLM must endeavor “to minimize damage to scenic and aesthetic values and fish and wildlife habitat and otherwise protect the environment” through avoidance or mitigation (43 U.S.C. § 1765(a)).

The BLM is also amending the Socorro and Mimbres Resource Management Plans. Section 202 of the FLPMA requires that “[t]he Secretary shall, with public involvement...develop, maintain, and when appropriate, revise land use plans that provide by tracts or areas for the use of the public lands” (43 U.S.C. § 1712). The regulations for making and modifying land use plans and planning decisions

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<sup>2</sup>On December 19, 2014, Congress recodified the National Historic Preservation Act in 54 U.S.C § 300101 et seq., replacing 16 U.S.C. § 470 et seq. In this ROD, the BLM will continue to refer to the requirements of the provision in 54 U.S.C. § 306108 as “Section 106” or the “Section 106 process.”

are found in 43 CFR Part 1600. The proposed plan amendments follow the required procedures set forth in 43 CFR Subpart 1610, Resource Management Planning.

These decisions affect only those lands in the Project area administered by the BLM. However, the effects to public lands managed by the BLM, as well as the effects to private lands and those managed by agencies other than the BLM, were considered in making this decision.

## **2.2 UTILITY RIGHT-OF-WAY**

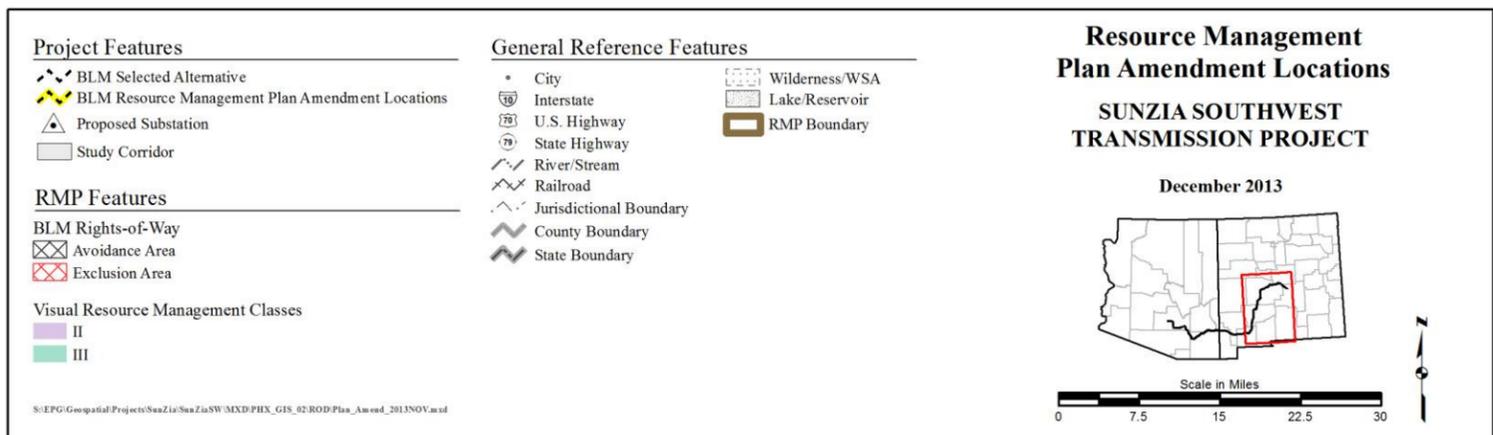
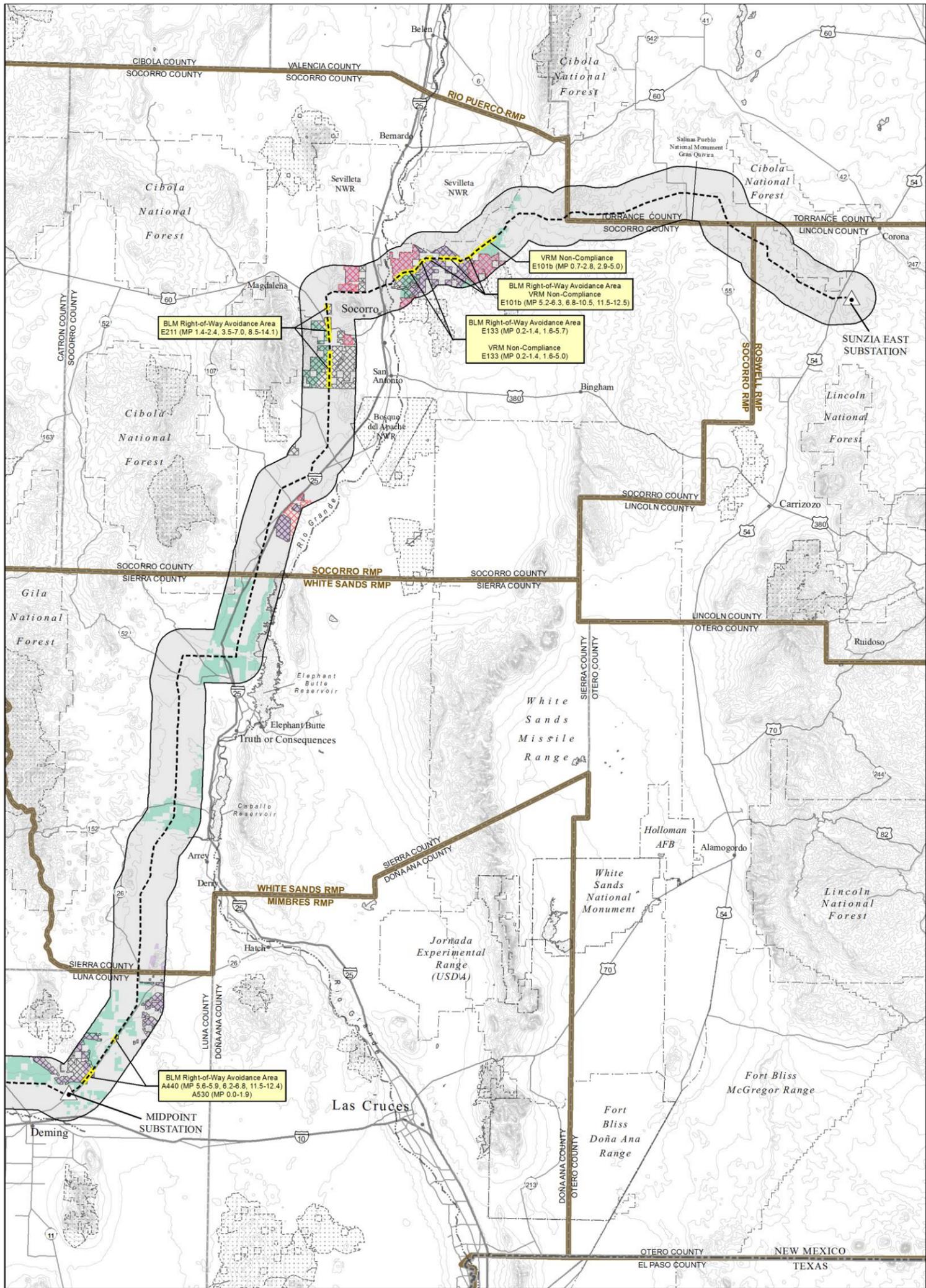
Based on review of the analysis as documented in the Final EIS (BLM 2013a), in consideration of the Mitigation Proposal as described in the EA, a right-of-way will be granted to SunZia Transmission, LLC to allow for the construction and operation of two 500-kV transmission lines, including access roads and other ancillary facilities, following the route of the BLM Selected Alternative (subroutes 1A2, 3A2, and 4C2c) as shown in Figure 1. The term of the right-of-way will be for 50 years, followed by decommissioning at the end of the useful life of the project, subject to a new grant of renewal. The right-of-way grant is subject to compliance with the terms identified in this ROD and right-of-way grant.

The typical right-of-way width will be 400 feet. However, according to design conditions, the right-of-way width may be up to 1,000 feet in certain situations (see Section 1.2 of the Final EIS). The right-of-way will cross approximately 183 miles of BLM-administered lands. Legal descriptions for the portions of BLM-administered lands located in New Mexico and Arizona that cross the BLM Rio Puerco, Socorro, Mimbres, Safford, and Tucson field offices and the Las Cruces and Gila district offices are included in Appendix A of this ROD.

This decision does not authorize the Applicant to commence construction of any Project facilities or to proceed with other ground-disturbing activities in connection with the Project on federal lands. Therefore, the Applicant shall not commence construction or proceed with ground-disturbing activities until the Applicant, in accordance with 43 CFR § 2807.10, receives and accepts the right-of-way grant, and also receives a written Notice to Proceed, which will consist of separate work authorizations that must be approved by the BLM's Authorized Officer. Although the project includes a right-of-way in both New Mexico and Arizona, and although the decision in this ROD is being made by the Assistant Secretary, Land and Minerals Management, the BLM Authorized Officer remains the BLM New Mexico State Director.

## **2.3 RESOURCE MANAGEMENT PLAN AMENDMENTS**

Based on the review of the analysis as documented in the Final EIS (BLM 2013a), the following decisions are hereby made to amend portions of the following RMPs to allow a 400-foot-wide corridor for construction and operation of two transmission lines in areas of non-conformance within the Socorro RMP and Mimbres RMP as stated in Section 2.3.1 and 2.3.2. See Figure 2 for locations of plan amendments. These RMP amendments are necessary as portions of the Selected Alternative cross areas identified as right-of-way avoidance areas. Avoidance areas may be used for future rights-of-way only when no feasible alternative route is available. In addition to right-of-way avoidance designations, the placement of new transmission facilities on BLM land within areas of restrictive VRM classifications may not conform to resource management objectives identified in RMPs.



**Figure 2. Bureau of Land Management Resource Management Plan Amendments**

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These plan amendments have been fully integrated with the NEPA process for this project, including the scoping and public comment periods on the EIS. In addition, a land use plan protest process was completed on the proposed plan amendments, and is described in Section 6.2.1 of this ROD. The BLM is approving plan amendments for the Socorro RMP and Mimbres RMP because they are necessary for the approval of the Selected Alternative.

### **2.3.1 Socorro Resource Management Plan**

The Socorro RMP (BLM 2010a) is amended to modify the VRM objectives from VRM Class II and III to VRM Class IV due to the change in project contrast in certain portions of the Selected Alternative corridors. The amendment to the Socorro RMP objectives (BLM 2010b, pages 42-43 and Map 6) results in a reduction of 0.07 percent (384 acres) of VRM Class II lands and a reduction of 0.06 percent (295 acres) of VRM Class III lands. The VRM Class IV lands increase by 0.13 percent (679 acres). See Table 2-16 of the Final EIS.

The Socorro RMP is amended to modify right-of-way avoidance areas in certain locations where the Selected Alternative crosses areas designated as right-of-way avoidance. A total of 1,022 acres are removed from the total of 342,363 acres of the right-of-way avoidance lands in the Socorro Field Office, which results in a reduction of 0.3 percent (BLM 2010b, page 18 and Map 2), or 1.9 percent of the total acres of the right-of-way avoidance areas in the Project study corridor (see Table 2-17 of the Final EIS).

### **2.3.2 Mimbres Resource Management Plan**

The Mimbres RMP (BLM 1993) is amended to modify right-of-way avoidance areas in certain locations where the Selected Alternative crosses areas designated as right-of-way avoidance (see Map 2-5 of the Mimbres RMP). A total of 194 acres (or 2.0 percent) are removed from the total of 9,899 acres of the right-of-way avoidance lands in the Project study corridor (see Table 2-18 of the Final EIS).

## **2.4 MITIGATION AND MONITORING**

The following measures, terms, and conditions have been adopted as requirements of the right-of-way grant to implement all practical means to avoid or minimize potential environmental harm resulting from the Project, as described in the Final EIS and related documents.

- Monitoring and mitigation measures as outlined in Chapter 2 of the Final EIS, including best management practices (BMPs) for project construction, operation, and maintenance.
- Reasonable and prudent measures and terms and conditions to minimize the take of threatened or endangered species, mitigation measures, and conservation recommendations as provided in the BO (Appendix C).
- Monitoring and mitigation measures for cultural resources, including terms and conditions provided in the PA (Appendix D).

- Monitoring and mitigation measures for BLM sensitive species, including terms and conditions that meet the mitigation planning direction provided in the BLM Instruction Memorandum 2013-142.
- Standard terms, conditions, and stipulations (43 CFR Part 2800).

Additional mitigation measures, terms, and conditions have been developed after the publication of the Final EIS and will also be adopted prior to issuance of the Notice to Proceed, as follows:

- In compliance with the Migratory Bird Treaty Act, Applicant will develop a USFWS approved Migratory Bird Conservation Plan, per the Memorandum of Understanding developed between BLM and the USFWS under Executive Order 13186, as described in Section 4.2.5 of this ROD.
- The Migratory Bird Conservation Plan will include measures to offset the loss of unavoidable impacts to migratory bird habitat. Such measures will include acquisition of conservation lands or easements, additional research and monitoring, and other means of compensation to replace migratory bird habitat service losses. Lands set aside for compensation may also fulfill replacement habitat for threatened and endangered species or critical habitat as stipulated in the BO.
- To address the mitigation of potential avian collision and mortality, an Avian Protection Plan will be also developed to the satisfaction of the USFWS.
- The Applicant will provide funding to rehabilitate and enhance pastures and habitat along the Project corridor. The BLM and the Applicant will develop an agreement on the timing and amount of such funding before the finalization of the Plan of Development (POD).
- The Applicant must complete a POD, subject to BLM approval, that will include provisions for site-specific mitigation and monitoring during construction, operation, and maintenance of the Project.
- The Applicant will satisfy the requirements set forth in the PA, including posting a financial security (such as a surety bond, irrevocable letter of credit, etc.) with the BLM in an amount sufficient to cover all post-fieldwork costs associated with implementing the Historic Properties Treatment Plan (HPTP), or other mitigation activities, to be required by the Applicant when they contract for services in support of the PA and for reclamation requirements and activities.
- The Applicant will also fund an independent environmental compliance inspection contractor (CIC), to be approved by the BLM, to represent the BLM during the construction and reclamation phases of the Project. The CIC will report directly to the BLM. The primary role and responsibility of the CIC is to monitor daily construction-related activities to ensure compliance with all terms, conditions, and stipulations of the right-of-way grant, POD, and other permits, approvals, and regulatory requirements as described in Section 1.12 of the Final EIS.

In addition to the mitigation measures listed above, the BLM has also adopted the mitigation measures proposed by the DoD (Mitigation Proposal). These measures are outlined below.

- (1) Burial of a Portion of the Power Lines.
- (2) Hold Harmless Clause to be included in the Right-of-way Grant.
- (3) Procedures to Allow for Unimpeded Testing to Occur During Construction and Maintenance of the Power Lines.
- (4) Procedures for Micrositing the Power Lines to Minimize WSMR Operational Impact.

BLM prepared an EA to determine whether the proposed Mitigation Measure 1, burying a portion of the transmission line, requires supplementation of the Final EIS. The EA examined whether burial of 5 miles of the transmission line project route constitutes either a substantial change to the proposed action or significant new circumstances or information that are relevant to environmental concerns, beyond those previously analyzed in the Final EIS (40 C.F.R. § 1502.9(c)(1)). The EA was published in the *Federal Register* for public comment on November 28, 2014 (DOI-BLM-NM-900-2015-1). Based on the EA, the BLM concluded that supplementation was not required. The findings of the EA are described in the FONNSI, included as Appendix D of this ROD.

### **3 ALTERNATIVES CONSIDERED IN THE FINAL EIS**

#### **3.1 NO ACTION ALTERNATIVE**

Under the No Action Alternative, the BLM would not grant a right-of-way for the Project to cross federal lands and the transmission line and ancillary facilities would not be constructed on federal land. Therefore, impacts associated with implementation of the Selected Alternative would not occur as a result of the construction and operation of the Project, and limitations in the national electrical infrastructure would remain. No RMPs would be amended under the No Action Alternative.

#### **3.2 ALTERNATIVE PLAN AMENDMENTS**

Each of the alternative routes for the Project was evaluated for conformance with existing BLM RMPs. In each alternative, the construction and operation of portions of the Project would not conform to some of the BLM RMPs due to either one of the following conditions: the right-of-way would cross an area designated in the RMP as a right-of-way avoidance, or the Project would not comply with VRM objectives. Plan amendments would be required for alternatives where no conforming alternatives could be developed that would meet the purpose and need of the Project. According to BLM regulations, an amendment shall be initiated by the need to consider monitoring and evaluation findings, new data, new or revised policy, a change in circumstances, or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan (43 CFR § 1610.5-5).

In addition to the alternative transmission line routes described in the EIS, three plan amendment alternatives were identified for each of the affected RMPs, as follows:

- **No Action:** If no action is taken, then the right-of-way for the Project would not be granted and no amendment to the affected RMP would be necessary.

- **Corridor<sup>3</sup> – 400 feet (BLM preferred plan amendment alternative):** The affected RMP would be amended to designate a 400-foot-wide corridor that would accommodate the SunZia transmission line right-of-way, and other future rights-of-way, through the BLM right-of-way avoidance areas. The VRM objective would be modified to Class IV within the corridor.
- **Corridor– 2,500 feet:** The affected RMP would be amended to designate a 2,500-foot-wide corridor that would accommodate the SunZia transmission line right-of-way and other future rights-of-way, through the BLM right-of-way avoidance areas. The VRM objective would be modified to Class IV within the corridor.

The two different corridor alternatives were identified to evaluate the environmental effects that would result from a reasonable range of plan amendment alternatives. It is assumed for purposes of this analysis that additional transmission lines or pipelines could be built in a common corridor with sufficient separation between facilities. The nominal 400-foot width would allow a nonexclusive right-of-way for the Project and potentially other additional rights-of-way in the corridor. The width of 2,500 feet represents a typical corridor designation on BLM land and would accommodate multiple rights-of-way or facilities. Minor deviations from the limits of the corridor may be required to accommodate site-specific considerations, and any new rights-of-way would be subject to case-by-case evaluations according to future project applications.

Impacts associated with the plan amendment alternatives are described in Chapter 4 of the Final EIS. Impacts resulting from corridor plan amendments, including impacts of additional rights-of-way and facilities, are documented in Section 4.18 of the Final EIS.

For the action, including alternatives, the BLM considered amendments to the following RMPs in New Mexico and Arizona:

- Socorro RMP, Socorro Field Office (2010): BLM Preferred Alternative (Route Group 1)
- Mimbres RMP, Las Cruces District Office (1993): BLM Preferred Alternative (Route Group 1)
- Final Safford District RMP and EIS, Safford District Office (1991): (Route Group 3)

The BLM Preferred Alternative includes plan amendments to the Socorro and Mimbres RMPs for specific corridor locations along the BLM preferred route. The BLM preferred plan amendment alternative is the 400-foot-wide corridor that may be included as an amendment to RMPs for conformance with VRM and right-of-way management objectives. Although the Preferred Alternative would not require a plan amendment to the Safford RMP, other non-selected alternatives would have required amendments.

Right-of-way avoidance area locations are described in Section 3.10.3.7 of the Final EIS, VRM classifications are shown in Section 3.9.3 of the Final EIS, and the analysis of plan amendment alternatives can be found in Section 4.18 of the Final EIS. The locations of the plan amendments for the BLM Preferred Alternative are presented in Figure 2.

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<sup>3</sup>A corridor is defined in BLM Manual 2800 as “a tract of land forming a passageway for linear utilities or transportation uses.” Note: The “study corridors” as defined in this EIS are resource-specific and vary between 1,200 feet and 6 miles wide.

### **3.3 ALTERNATIVE TRANSMISSION LINE ROUTES**

A range of alternative routes was analyzed in the Draft and Final EIS, including the BLM Preferred Alternative and the No Action alternative. The BLM Preferred Alternative route was modified in response to comments received on the Draft EIS as described in the Final EIS (see section 3.4). For study purposes and for comparison of alternatives, alternative routes were organized into three route groups or segments that correspond to areas between the proposed SunZia East Substation and the permitted Pinal Central Substation (see Figure 1). Route Group 1 includes the alternatives between the SunZia East Substation site and the proposed Midpoint Substation site; Route Group 3 includes alternatives between the Midpoint Substation site and the proposed Willow-500-kV Substation site; and Route Group 4 includes alternatives between the Willow-500-kV Substation site and the Pinal Central Substation site. (Route Group 2, which included alternatives located east of the WSMR, was eliminated from study in the EIS). These three route groups comprise the individual subroutes that are formed by a series of interconnected segments.

#### **Route Group 1: SunZia East Substation to Midpoint Substation**

Seven alternative subroutes connect the SunZia East Substation to the Midpoint Substation site, ranging from 206 miles to 230 miles in length. The alternatives in this route group cross portions of Lincoln, Torrance, Socorro, Sierra, and Luna counties in New Mexico.

##### Subroute 1A – North River Crossing

Subroute 1A (219.5 miles) proceeds west from the proposed SunZia East Substation, passes adjacent to the Sevilleta NWR, and crosses the Rio Grande 4 miles north of the community of Socorro. The subroute continues west before it turns south for 23 miles, parallel to a 345 kV transmission line. Subroute 1A turns southwest, with a portion of the subroute parallel to I-25 and a 115 kV transmission line, before it crosses over State Highway 107 to parallel State Route (SR) 1. The subroute continues in a southerly direction parallel to a 345 kV transmission line, with a portion of the subroute also parallel to SR 27 and SR 26. Subroute 1A parallels approximately 113.5 miles of existing or designated utility corridors.

##### Subroute 1A1 – North River Crossing

Subroute 1A1 (228.8 miles) proceeds west from the proposed SunZia East Substation, then continues north into Torrance County approximately 4 miles north of the Gran Quivira (links E82, E84, and E85), and rejoins Subroute 1A in Socorro County, east of the Sevilleta NWR. Subroute 1A1 follows the remaining alignment of Subroute 1A, except for the portion located west of the Rio Grande, crossing from Socorro County into Sierra County; that portion follows Link A260 within an existing transmission line corridor for approximately 25 miles. Subroute 1A1 parallels approximately 140.7 miles of existing or designated utility corridors.

##### Subroute 1A2 – BLM Selected Alternative

Subroute 1A2 (230.3 miles), the BLM Selected Alternative, proceeds west from the proposed SunZia East Substation, then continues north into Torrance County approximately 4 miles north of the Gran Quivira (links E82, E84a, and E86a). As Subroute 1A2 proceeds west, it parallels

Subroute 1A1 for between 2 and 3 miles to the north, then rejoins Subroute 1A in Socorro County, east of the Sevilleta NWR. As with Subroute 1A1, Subroute 1A2 follows the remaining alignment of Subroute 1A as described above. Subroute 1A2 parallels approximately 140.7 miles of existing or designated utility corridors. Subroute 1A1 was identified in the Draft EIS as the BLM Preferred Alternative. The selection of Subroute 1A2 as the BLM Preferred Alternative in the Final EIS was made in response to comments on the Draft EIS that requested modifications to segments E80d and E101a in order to increase the distance between the transmission lines and the military missile launch complex 94 (LC 94). Aligning the transmission lines along Subroute 1A2 places project facilities approximately 4 miles north of LC 94 and farther from the projected debris field of LC 94. Subroute 1A2 was also modified in response to comments on the Draft EIS regarding views from Gran Quivira.

#### Subroute 1B1, 1B2, 1B2a, and 1B3 – San Antonio Crossing

Subroute 1B1 (223.6 miles) proceeds west from the proposed SunZia East Substation, then turns south approximately 5 miles east of the Sevilleta NWR. The subroute continues south, then turns and again heads west, crosses the Rio Grande, and continues approximately 1.5 miles north of the community of San Antonio roughly parallel to US Route 380 before it again turns south, approximately 8 miles south of the City of Socorro. As Subroute 1B1 proceeds south, it passes west of Elephant Butte Reservoir and 8 miles west of the City of Truth or Consequences, with a majority of this segment parallel to I-25. The subroute turns slightly to the southwest and proceeds to the proposed Midpoint Substation northeast of Deming. Subroute 1B1 parallels approximately 98.6 miles of existing and designated utility corridors, as well as a large portion of I-25 and US Route 380.

Subroute 1B2 (209.2 miles) proceeds west, similar to subroutes 1A and 1B1, then turns slightly southwest and continues west, parallel to US Route 380 (12 miles north of the WSMR). Subroute 1B2 then turns south and continues west again, from which point it follows the same path as Subroute 1B1. The subroute heads south again, parallel to I-25, then turns slightly southwest and proceeds to the proposed Midpoint Substation. Subroute 1B2 parallels approximately 89.6 miles of existing and designated utility corridors, as well as a large portion of I-25 and US Route 380.

Subroute 1B2a (212.8 miles) is similar to Subroute 1B2, with the exception of Link A260 in place of Link A270. Link A260 follows an existing transmission line east of I-10 in Sierra County and crosses back west of I-10, north of Truth or Consequences, to reconnect with Subroute 1B2. Subroute 1B2a parallels approximately 99.5 miles of existing and designated utility corridors, as well as a large portion of I-25 and US Route 380.

Subroute 1B3 (206.3 miles) proceeds west, similar to Subroute 1B2. It passes approximately 5 miles north of the WSMR, parallel to US Route 380. From here, Subroute 1B3 follows the same path as 1B2, continues west, and crosses the Rio Grande. Subroute 1B3 passes approximately 1.5 miles north of the community of San Antonio and continues parallel to US Route 380 before it proceeds south, parallel to I-25, then turns southwest and proceeds to the proposed Midpoint Substation. Subroute 1B3 parallels approximately 88.6 miles of existing and designated utility corridors, as well as a large portion of I-25 and US Route 380.

### **Route Group 3: Midpoint Substation to Willow-500-kilovolt Substation**

Three alternative routes connect the Midpoint Substation site to the Willow-500-kV Substation site, ranging from 123 miles to 129 miles in length. The alternatives in this route group cross portions of Luna, Grant, and Hidalgo counties in New Mexico and portions of Greenlee, Graham, and Cochise counties in Arizona.

#### Subroute 3A – North

Subroute 3A (123.4 miles) proceeds west from the proposed Midpoint Substation along the Subroute 3A2 alignment to approximately 10 miles west of the New Mexico-Arizona state line. The subroute proceeds west and crosses the southern tip of the Hot Well Dunes Recreation Area approximately 3 miles north of the San Simon Creek Basin, then proceeds west into the proposed Willow-500 kV Substation. Subroute 3A parallels approximately 42.4 miles of existing or designated utility corridors.

#### Subroute 3A2 – BLM Selected Alternative

Subroute 3A2 (123.9 miles), the BLM Selected Alternative, is a variation of Subroute 3A. The subroute proceeds west from the proposed Midpoint Substation, and then crosses a 115 kV transmission line and US Route 180 approximately 7.5 miles north of Deming. From that point, Subroute 3A2 proceeds southwesterly, and then turns northwest to parallel a 345 kV transmission line and pipeline adjacent to the Hidalgo Substation. The subroute then heads west, to cross the New Mexico-Arizona state line from Hidalgo County into Greenlee County. The subroute then proceeds west into Graham County, and south of the Hot Well Dunes Recreation Area, and continues through the San Simon Valley to the proposed Willow-500 kV Substation. Subroute 3A2 parallels approximately 42.4 miles of existing or designated utility corridors.

The BLM Preferred Alternative described in the Draft EIS was the combination of subroutes 3A and 3B, which included Crossover Link B140 (Subroute 3A1). The selection of Subroute 3A2 was made in response to comments received on the Draft EIS to include a modification of the alignment of Link B160 (a portion of Subroute 3A), to avoid the Hot Well Dunes Recreation Area.

### **Route Group 4: Willow-500-kilovolt Substation to Pinal Central Substation**

Eight alternative routes connect the Willow-500-kV Substation site to the Pinal Central Substation site, ranging from 133 miles to 173 miles in length. The alternatives in this route group cross portions of Graham, Cochise, Pima, and Pinal counties in Arizona.

#### Subroute 4A – North of Mt. Graham

Subroute 4A (132.9 miles) proceeds north from the proposed Willow-500 kV Substation, parallel to a 230 kV transmission line, pipeline, and US Route 191, then heads west to a point just outside the eastern boundary of the Coronado National Forest (CNF). Subroute 4A then heads northwest to a point just outside the northeast corner of the CNF (approximately 7.5 miles from the community of Safford), turns west then slightly southwest (approximately 2 miles north of the northern boundary of the CNF), to a point approximately two miles north of Mammoth. It

crosses the San Pedro River, a 115 kV transmission line, and a pipeline along this segment. The subroute heads north parallel to the San Pedro River, then west where it crosses two pipelines, is parallel to one pipeline, and crosses SR 79 and a 115 kV transmission line adjacent to SR 79. The subroute continues west and crosses the Central Arizona Project (CAP) and SR 87 before it proceeds to the permitted Pinal Central Substation. Subroute 4A parallels approximately 27.6 miles existing or designated utility corridors.

#### Subroute 4B – Sulphur Springs Valley

Subroute 4B (133.0 miles) proceeds southwest from the proposed Willow-500 kV Substation, parallel to two 345 kV transmission lines, and crosses two pipelines and US Route 191. The subroute proceeds southwest then west, and crosses two 345 kV transmission lines before it heads northwest to follow the western portion of the CNF. The subroute turns west before it turns slightly southwest (approximately 2 miles north of the northern boundary of the CNF), to a point approximately two miles north of Mammoth. It crosses the San Pedro River, a 115 kV transmission line, and a pipeline along this segment, following the same path as Subroute 4A. Subroute 4B parallels approximately 21.6 miles of existing or designated utility corridors.

#### Subroute 4C1 – East of San Pedro River

Subroute 4C1 (139.0 miles) proceeds southwest from the proposed Willow-500 kV Substation, parallel to two 345 kV transmission lines, and crosses two pipelines and US Route 191. The subroute proceeds west/southwest, parallel to two 345 kV transmission lines, before it continues west and crosses over two 345 kV transmission lines. Subroute 4C1 then turns northwest, enters the Muleshoe Ecosystem Cooperative Management Area (CMA), turns west along the southern boundary of the CMA, and then heads northwest and crosses two pipelines west of the CMA and CNF, roughly parallel to the San Pedro River (approximately seven miles east of the community of San Manuel). Subroute 4C1 heads west and crosses the San Pedro River (approximately 4.5 miles south of Mammoth and 4 miles north of San Manuel), where it crosses SR 77 then heads northwest parallel to a pipeline, and crosses SR 79 and a 115 kV transmission line. As the subroute then heads west, it crosses the CAP and SR 87 before it proceeds to the permitted Pinal Central Substation. Subroute 4C1 parallels approximately 63.9 miles of existing or designated utility corridors.

#### Subroute 4C2 – West of San Pedro River

Subroute 4C2 (151.8 miles) proceeds southwest from the proposed Willow-500 kV Substation, parallel to two 345 kV transmission lines, and crosses two pipelines and US Route 191. The subroute heads west, parallel to two 345 kV transmission lines, then southwest. The subroute crosses the 345 kV lines approximately 0.7 mile west of the San Pedro River and turns northwest, then north (approximately two miles west of San Manuel). Subroute 4C2 then heads west, crosses SR 77 (approximately two miles north of the community of Oracle), and parallels a 115 kV transmission line to the southwest, to a point adjacent to the Oracle Junction Substation. Subroute 4C2 then proceeds parallel to a 500 kV and a 115 kV transmission line, and crosses SR 79. The subroute proceeds northwest then north, to follow the same path as Subroute 4C1 into the permitted Pinal Central Substation. Subroute 4C2 parallels approximately 73.1 miles of existing or designated utility corridors.

Subroute 4C2a (137.8 miles) is similar to 4C2, with the exception of the segment between Oracle and the Pinal Central Substation (C690, C691, C693, C760, and C780), which follows an existing pipeline corridor for approximately 30 miles in Pinal County.

Subroute 4C2b (147.2 miles) is similar to 4C2a, with the exception of the segment between a point north of Willcox and the San Pedro River, where Subroute 4C2b continues parallel to the existing 345 kV transmission lines for approximately 20 miles, and crosses the San Pedro River south of the Three Links Ranch in Cochise County (links C260, C261, and C201). The subroute continues northwesterly through the northeast corner of Pima County into the Oracle area of Pinal County, west of the San Pedro River.

#### Subroute 4C2c – BLM Selected Alternative

Subroute 4C2c (161.2 miles) is a combination of 4C2 and 4C2b. The subroute follows the existing 345 kV transmission lines from the Willow-500 kV Substation across the San Pedro River, and continues northwesterly through the northeast corner of Pima County into Pinal County, following the Subroute 4C2b alignment. It then follows the westerly route toward the Tortolita Substation (Subroute 4C2, Link C680), and from that point follows links C818 and C820 approximately 15 miles north to rejoin the 4C2 routes. The preferred alignment along Link C820 would be parallel to and east of the proposed Pinal Central to Tortolita 500 kV transmission line within right-of-way on BLM land for approximately 10.8 miles. Subroute 4C2c parallels approximately 90.4 miles of existing or designated utility corridors.

#### Subroute 4C3 – Tucson

Subroute 4C3 (172.9 miles) follows the same path as Subroute 4C2 from the Willow-500 kV Substation to a point west of Cascabel Road, then continues southwest parallel to two 345 kV transmission lines, and crosses a pipeline and a 115 kV transmission line (approximately 8 miles northwest of the community of Benson) before it continues southwest to cross three pipelines and I-10. The subroute then heads west (approximately 4 miles south of Saguaro National Park) before it turns north approximately 2 miles east of the community of Vail. As Subroute 4C3 turns west again, to a point adjacent to the intersection of I-10 and Colossal Cave Road, it crosses I-10 and proceeds northwest parallel to the interstate. Subroute 4C3 again heads west before it parallels a pipeline, turns north, proceeds west, crosses Wilmot Road, and continues northwest to a point adjacent to I-10. Subroute 4C3 continues northwest and parallels Benson Highway, then heads north along Alvernon Way and into central Tucson. The subroute proceeds northwest roughly parallel to I-10, then crosses I-10 and I-19. Subroute 4C3 proceeds northwest, with portions paralleling a 138 kV transmission line, adjacent to the Santa Cruz River and I-10. The subroute turns north, primarily parallel to a 138 kV transmission line, and crosses I-10 proceeding northwest, then crosses the CAP near the Tortolita Substation. Subroute 4C3 continues north from the Tortolita Substation, parallel to two 500 kV transmission lines and one 115 kV transmission line, then heads northeast and crosses the CAP. The subroute proceeds north, and then turns northwest approximately 2 miles southwest of SR 79, and reconnects with subroutes 4C1 and 4C2. Subroute 4C3 parallels approximately 118.3 miles of existing or designated utility corridors.

## 3.4 SELECTION OF THE PREFERRED ALTERNATIVE

### 3.4.1 BLM Preferred Alternative

The Selected Alternative is to include two new single-circuit 500-kV transmission lines located in a right-of-way, typically 400 feet wide. The right-of-way could be up to 1,000 feet wide in certain locations, due to local site conditions and design specifications (see Section 1.2 of the Final EIS). At least one of the two 500-kV transmission lines would be constructed and operated as an alternating current (AC) facility; the other transmission line could be either an AC or direct current (DC) facility. Depending on the configuration, the Project could provide up to 4,500 megawatts (MW) of additional transfer capability on the regional electrical grid. Based on a typical span of 1,400 feet, three to four transmission line structures per mile would be required for each of the two lines, with typical structure heights of 135 feet that range between 100 and 175 feet. Amendments to the Socorro and Mimbres RMPs would be required as part of the Selected Alternative (see Section 2.3 of this ROD).

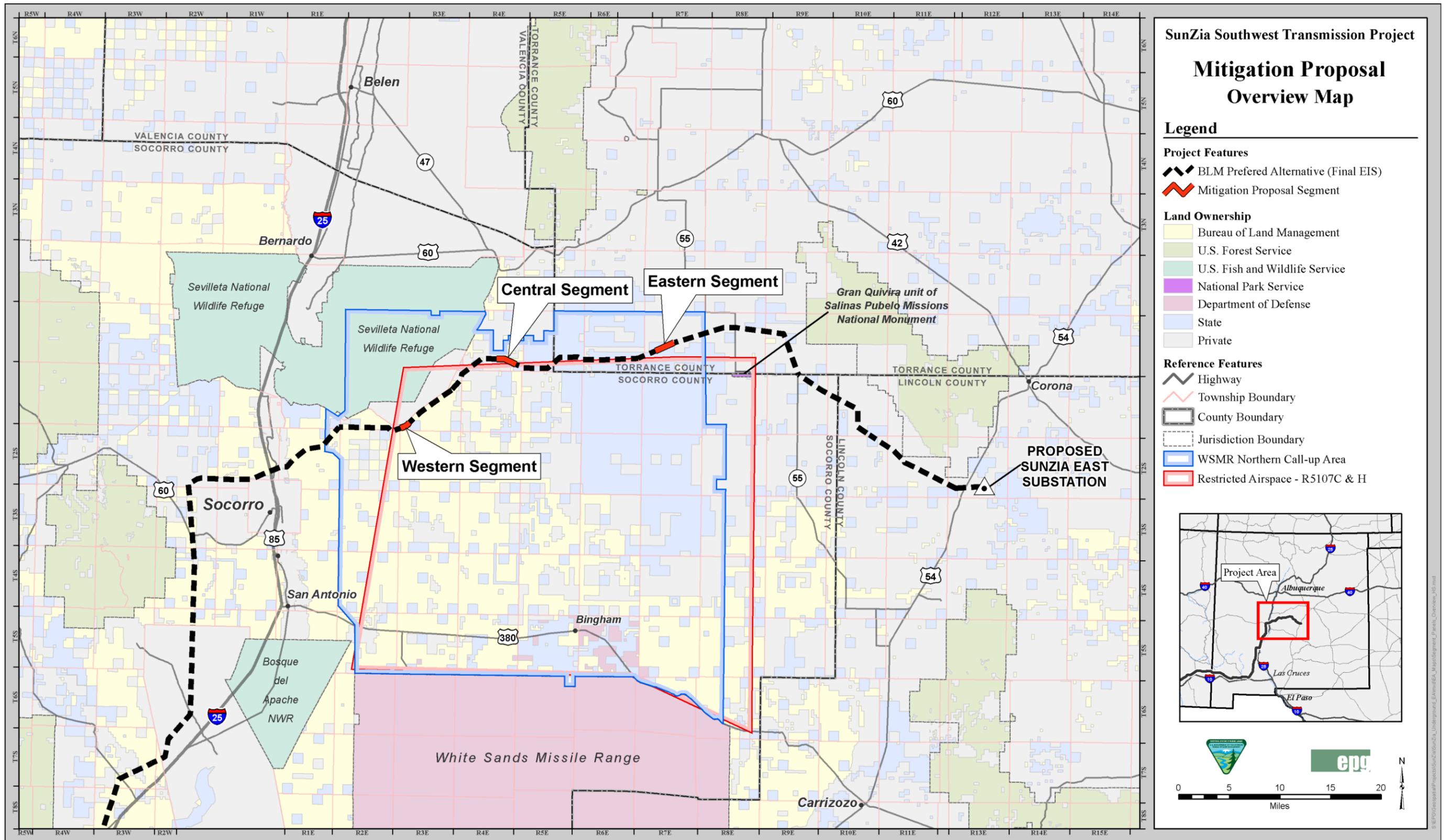
In response to DoD's Mitigation Proposal, and to mitigate potential impacts to DoD military readiness and operations, BLM has incorporated into the Preferred Alternative the burial of at least 5 miles along three different segments of the 500-kV transmission lines north of the WSMR in the Northern Call-Up Area. The underground segments will be located in the BLM Preferred Alternative study corridor, Subroute 1A2 (Final EIS, Figure 2-4), in portions of Torrance and Socorro counties. Six transition stations will also be constructed to connect the underground cables with the overhead conductors at each terminal of the underground segments as shown on the map in Figure 3.

The Project would include the construction of the SunZia East 500-kV Substation at the Project's eastern terminus in Lincoln County and up to three intermediate substations that would be constructed on private or state lands:

- Midpoint Substation, located in Luna County, New Mexico
- Lordsburg Substation, located in Hidalgo County, New Mexico
- Willow-500-kV Substation, located in Graham County, Arizona

The Pinal Central Substation, at the Project's western terminus, has already received its regulatory permits and approvals and will be constructed by Salt River Project and other entities. Other components of the Project consist of access roads and ancillary facilities such as fiber-optic communication regeneration stations and ground electrode facilities (for DC only). The description of the action is included in detail in Chapter 2, Section 2.4 of the Final EIS.

The Selected Alternative, identified in the Final EIS as the BLM Preferred Alternative, as modified by the Mitigation Proposal in the EA, consists of the combination of three subroutes—**1A2, 3A2, and 4C2c**—one from each of the route groups.



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The route (1A2 of Route Group 1) starts at the SunZia East Substation site in Lincoln County, New Mexico, and heads in a northwesterly direction, approximately 5 miles north of the Gran Quivira Unit of the Salinas Pueblo Missions National Monument (Gran Quivira), into Torrance County. The route then heads southeasterly into Socorro County, crossing the Rio Grande approximately 4 miles to the north of the town of Socorro. Nine miles west of the Rio Grande, the route turns south along a 345-kV transmission line corridor into Sierra County, generally parallel to Interstate 25 (I-25) and the Rio Grande. The route continues south into Luna County along a 345/115-kV transmission line corridor, then turns west approximately 8 miles northeast of Deming at the proposed Midpoint Substation site. Continuing in a westerly direction, the route (3A2 of Route Group 3) crosses Grant County to the proposed Lordsburg Substation site north of Lordsburg. The route continues west through Hidalgo County, north of the Peloncillo Mountains, to the Arizona border.

Crossing into Greenlee County, the route continues west across the San Simon Valley to the proposed Willow-500-kV Substation site located in Graham County. From the Willow-500-kV Substation site, the route (4C2c of Route Group 4) heads southwest and crosses the Sulphur Springs Valley seven miles north of Willcox and continues southeasterly along a 345-kV transmission line corridor generally parallel to and north of the Interstate 10 (I-10). The route crosses the San Pedro River approximately 11 miles north of Benson, turns northwest, and continues at a distance ranging from 2 to 6 miles west of the San Pedro River through portions of Cochise and Pima counties. The route continues northwest along a pipeline corridor into Pinal County, turns west at a point 5 miles northwest of San Manuel, then proceeds westerly, north of Oracle and the Santa Catalina Mountains and along portions of 115-kV and 500-kV transmission line corridors, north of the Tortolita Mountains. The route turns north from a point near the Tortolita Substation toward State Route (SR) 79, and then west, north of the Picacho Mountains, to its termination at the Pinal Central Substation located 8 miles north of Eloy, in Pinal County.

This route was identified as the BLM Preferred Alternative because it would:

- maximize use of existing utility corridors and infrastructure
- minimize impacts to sensitive resources
- minimize impacts at river crossings
- minimize impacts to residential and commercial uses
- minimize impacts to military operations in the restricted airspace north of the WSMR

A major portion of the route would be constructed along established utility corridors where existing access is available. Approximately 53 percent (273 miles) of the route would be parallel to existing or designated utility corridors, including 229 miles parallel to existing transmission lines.

Although the Preferred Alternative Subroute 1A2 is the longest route (230.3 miles) among the alternatives in Route Group 1, it has a greater proportionate length parallel to existing utility corridors (140.7 miles or 61 percent).

Subroute 1A2 was developed as a modification of the Subroute 1A1 alignment, after the Draft EIS was published based on input from the NPS and WSMR, to provide additional mitigation. The portion of the preferred route that extends northwest from the proposed SunZia East

Substation through Lincoln, Torrance, and Socorro counties would have less potential visual and cultural resource impacts to the Gran Quivira unit of the Salinas Pueblo Missions National Monument (Gran Quivira) than the alternatives located to the south. The preferred route would also affect less of the restricted airspace north of the WSMR than other alternatives and would avoid potential impacts in proximity to the LC 94 missile launch facility. To further mitigate potential impacts to the DoD-mission capability along the Selected Alternative, DoD proposed the burial of at least 5 miles of the 500-kV transmission lines. This proposal would accommodate a minimum required set of type and diversity of low altitude tests possible in the vicinity of the transmission lines. The three segments identified by DoD for burial are located in the eastern (at least 2 miles), central (at least 2 miles), and western (at least 1 mile) regions of the Northern Call-Up Area (see Figure 3).

At the Rio Grande, the level of impact resulting from construction and operation of the transmission lines at the north river crossing near Socorro (Subroute 1A1, 1A2, or 1A), compared to the crossing near San Antonio (1B subroute group) would be lower with respect to visual and biological resources. In the area along the river designated as critical habitat for Southwestern Willow Flycatcher and Rio Grande Silvery Minnow, the potential to affect suitable riparian habitat is lower at the north river crossing; the habitat quality is higher at the southern (San Antonio) crossing. Based on the information from the Class I and II inventories conducted for this Project, cultural resource impacts would also be lower at the crossing near Socorro than under other alternatives.

The preferred route through Sierra and Luna counties, south to the Midpoint Substation, in Luna County is primarily parallel to existing 345 and 115-kV transmission lines. Construction through these corridors would be achieved with fewer new access roads, resulting in less ground disturbance, lower potential vegetation loss and soil erosion, and lower levels of visual impact compared to the other alternatives. No significant impacts to other resources would be likely to occur.

The portion of Preferred Alternative Subroute 3A2 that extends west from the proposed Midpoint Substation (also Subroute 3A) follows existing 345-kV transmission lines in Grant and Hidalgo counties, near the proposed Lordsburg Substation. Land use and visual resource impacts would be lower along this route than the alternative located south of the Lordsburg community (Subroute 3B). Based on the information from the Class I and II inventories conducted for this Project, cultural resource impacts would also be lower than under other alternatives.

The Preferred Alternative Subroute 3A2 crosses into Greenlee County, Arizona, and continues west, 5 miles north of the Peloncillo Mountains Wilderness area. The subroute continues west into Graham County, south of the BLM Hot Well Dunes Recreation Area, and into the proposed Willow-500-kV Substation. No significant impacts would be likely to occur along this portion of the preferred route.

Preferred Alternative Subroute 4C2c follows a corridor containing two existing 345-kV transmission lines from the Willow-500-kV Substation, southwest into Cochise County and north of Willcox to the San Pedro River crossing. The transmission lines would cross the San Pedro River in designated critical habitat for Southwestern Willow Flycatcher (Subroute 4C2c, also Subroute 4C2b and 4C3). The potential to impact suitable riparian habitat, land uses, and visual

resources is lower at this river crossing compared to the alternative river crossings to the north. Based on the information from the Class I and II inventories conducted for this Project, cultural resource impacts would also be lower than under other alternatives.

From the river crossing, the preferred route continues to the northwest, located between 2 and 6 miles west of the San Pedro River, crossing hilly grazing lands. The route parallels an existing pipeline through a portion of Pima and Pinal counties, then turns west at a point west of San Manuel, north of Oracle, and then parallels existing 115-kV and 500-kV transmission lines toward the Tortolita Substation near I-10. The route continues north and turns west to the north of the Picacho Mountains to the Pinal Central Substation.

The BLM Preferred Alternative is the second longest (161 miles) of the alternatives in Route Group 4 (133 to 173 miles). However, the Preferred Alternative has the greatest proportionate length parallel to existing transmission lines (72 miles, or 45 percent). Subroutes 4A and 4B are approximately 20 percent shorter than the BLM Preferred Alternative, generally resulting in 17 to 20 percent less ground disturbance. However, alternative subroutes 4A and 4B would require construction through areas where there is less existing access or other development. The construction of new transmission lines through relatively undeveloped areas could also cause cumulative impacts, such as the potential for habitat fragmentation and ground disturbance resulting from future access. Although these impacts could be reduced with effective mitigation measures, such as closing roads and restoring disturbed lands after construction, using corridors containing existing utilities and access for construction of new transmission lines would more likely reduce the potential for such impacts to occur.

### **3.4.2 Environmentally Preferable Alternative**

As required by 40 CFR § 1505.2(b), an agency preparing an EIS must state in its ROD the environmentally preferable alternative. Typically, this is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources. Under the No Action Alternative, the BLM would not issue the Applicant a right-of-way grant to construct the transmission line, substations, and related facilities and infrastructure on federal land. The BLM would not approve plan amendments to RMPs. As a consequence there would be no environmental impacts to historic, cultural, and natural resources on federal lands. The No Action Alternative is the environmentally preferable alternative.

For the reasons detailed in this ROD, the BLM has not selected the No Action Alternative because it would not meet the purpose and need for the BLM's proposed action, which includes policies aimed at increasing reliability of the national grid and advancing capacity for renewable energy.

During the development of the EIS, however, the BLM considered various combinations of alternative route segments to identify the least environmentally impactful action alternatives. The impacts pertaining to alternative routes were evaluated and the subroute segments were compared to one another to determine which combination of segments would result in the alternative with the least overall impacts to historic, cultural, and natural environmental resources. A major factor in the selection was the potential for consolidation of rights-of-way,

whereby the environmental impacts of construction and operation could be minimized by collocating facilities parallel to or in existing utility corridors. According to the Section 503 of FLPMA,

“[i]n order to minimize adverse environmental impacts and the proliferation of separate rights-of-way, the utilization of rights-of-way in common shall be required to the extent practical, and each right-of-way or permit shall reserve to the Secretary concerned the right to grant additional rights-of-way or permits for compatible uses on or adjacent to rights-of-way granted pursuant to this Act.”

The BLM Selected Alternative (subroutes 1A2, 3A2, and 4C2c) best achieves the balance required to limit environmental impacts and provides the best opportunities for mitigation while achieving the BLM’s purpose and need, and minimizing impact to DoD mission capability across the Northern Call-up Area. Of the action alternatives analyzed, the BLM Selected Alternative is the environmentally preferable alternative. Chapter 2, Section 2.5, of the Final EIS provides a detailed comparison of alternatives.

The following section includes a description of the factors considered in the selection of the alternative by the BLM, including national policy.

### **3.5 MANAGEMENT CONSIDERATIONS**

#### **3.5.1 Meeting the BLM’s Purpose and Need**

As described in Section 1.1 of this ROD, approval of the right-of-way grant for the Selected Alternative meets the BLM’s purpose and need, in part, by responding the SunZia’s application pursuant to FLPMA and consistent with the BLM’s multiple-use mandate and right-of-way objectives outlined in 43 CFR § 2801.2. Additionally, the Selected Alternative meets the BLM’s purpose and need of advancing legislative and policy goals by allowing the applicant to use federal lands to construct, operate, and maintain two new 500-kv transmission lines that will increase transmission capacity, help to improve reliability, and encourage renewable energy generation.

#### **3.5.2 Consideration of the Issues**

The range of issues summarized and analyzed in the EIS was derived from the scoping process and public involvement (described in detail in Chapter 5, Section 5.2, of the Final EIS). These issues were used to identify, refine, and evaluate alternative routes and to direct the level of detail needed for each of the environmental resource studies completed for the EIS. A complete list of the issues identified and where each issue is addressed in the EIS is presented in Table 1-3 of the Final EIS.

From the inclusive list of issues identified in scoping and public involvement, many issues are addressed by design features of the Project or were found not to be substantive through the effects analysis conducted for the Project. However, several planning issues proved to be pivotal to Project development and critical to the decision for the BLM Selected Alternative; these are described in the following sections.

Mitigation includes specific means, measures, or practices that would reduce or eliminate effects of the BLM Selected Alternative. Mitigation may be used to reduce or avoid adverse impacts to environmental resources, whether or not they are significant in nature. Standard mitigation measures are those that apply to the Project as a whole. These measures typically address specific environmental policies, BMPs, planning guidelines, or regulatory requirements. Standard mitigation measures are listed in the Section 2.4.12 of the Final EIS and are adopted as part of this decision and included in Appendix F of this ROD.

In addition to the standard mitigation measures adopted in this decision, the BLM in collaboration with the cooperating agencies developed selective mitigation (SE) measures, which include measures or techniques recommended or required by the agencies or landowners. As such, selective mitigation measures provide a planning tool for minimizing potential adverse impacts. Where warranted, selective mitigation measures are recommended to reduce potential impacts in specific locations. These measures would be modified as appropriate, to reduce impacts associated with specific resource concerns (e.g., cultural, biological, visual) associated with the BLM Selected Alternative, and included prior to Project construction in the Final POD. SE measures are listed in Section 2.4.12 of the Final EIS and are included in Appendix E of this ROD.

### **3.5.2.1 Climate and Air Quality**

Emissions of air pollutants would occur during construction of the transmission lines and substations and, to a lesser extent, during Project operations. Emissions would be transient as construction progresses, so emissions would not occur in one area for a long duration, thereby limiting their impact.

With the exception of 24-hour PM<sub>10</sub> (particles smaller than 10 micrometers in diameter), climate and air quality impacts resulting from construction and operation of any of the alternative subroutes, including the BLM Selected Alternative, were predicted to be within regulatory limits (below the applicable national, Arizona, and/or New Mexico ambient air quality standards). Because of high background concentrations of PM<sub>10</sub> in the West Pinal County PM<sub>10</sub> nonattainment area, maximum total 24-hour PM<sub>10</sub> impacts could potentially exceed PM<sub>10</sub> standards temporarily for alternatives in Route Group 4, including the BLM Selected Alternative, during construction-related activities. However, standard mitigation measures would be effective in reducing the impacts to air quality during the construction phase. Those measures include implementing dust control plans, including watering roads used for construction, and adherence to requirements for air quality permits. Estimated emission totals are below the conformity determination thresholds (*de minimis* levels) within affected nonattainment and maintenance areas, and would conform with the state implementation plans.

### **3.5.2.2 Biological Resources**

Direct impacts to vegetation include the removal of plants during construction of new or modified access and spur roads and at structure and substation sites. Vegetation removal for structure foundations and at substation sites, as well as roads designated to remain open for maintenance, would be permanent. Indirect impacts associated with vegetation removal may

include erosion, reduction of soil water retention, invasive plant colonization, loss of wildlife habitat, and habitat fragmentation.

SE mitigation measures 1–9 and 12–16 will be applied to reduce, avoid, or otherwise provide compensation for impacts to sensitive vegetation. Where vegetation is disturbed or cleared, vegetation loss would be minimized by (1) reducing the area to the extent practicable, (2) plant salvage and revegetation in areas of temporary disturbance, and (3) closure and restoration of any access roads not required for Project maintenance or access. Closure of temporary access roads and the limiting of access through gating or other means would reduce indirect impacts to vegetation caused by recreational travel, including off-road vehicle travel beyond the Project right-of-way. Tree-cutting would be conducted to meet the National Electrical Safety Code<sup>4</sup> (NESC) and an appropriate level of safety, but will be minimized.

Linear features such as access roads and the transmission lines could fragment wildlife habitat, adversely affecting species reluctant to cross areas of open ground. Related to this are edge effects, which may reduce the effective size of habitat blocks for those species, limiting connectivity and dispersal among blocks.

The following impacts to general wildlife and special status species may occur with construction and operation of the BLM Selected Alternative:

- Transmission lines may interfere with Sandhill Crane and waterfowl migration routes and lead to increased bird–power line collision risk at the Rio Grande crossing and in the Sulphur Springs Valley. An avian impact study was conducted in the Rio Grande Valley to assess the effects of potential collisions. Results of the study predicted that while potentially fatal collisions of Sandhill Cranes and other large birds are likely to occur, a substantial effect at the population level is unlikely for any species. A Migratory Bird Conservation Plan and Avian Protection Plan, discussed below, will be developed that will require a number of measures to minimize harm to Sandhill Cranes and other large birds.
- Impacts may occur to Southwestern Willow Flycatcher and designated critical habitat at the Rio Grande crossing. Impacts also may occur to designated critical habitat at the San Pedro River crossing.
- Impacts may occur to the Yellow-billed Cuckoo and proposed critical habitat and the Rio Grande Silvery Minnow and its designated critical habitat as a result of vegetation management or erosion.
- Disturbance associated with construction and maintenance could affect a movement corridor for the Desert Bighorn Sheep west of the Rio Grande in Socorro County.
- Habitat for the Northern Aplomado Falcon may be affected west of the Rio Grande in New Mexico.
- The Chihuahuah scurfpea may be impacted by ground disturbance in western New Mexico and the San Simon Valley, Arizona.

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<sup>4</sup>NESC defines the minimum safe electrical clearances to ground and adjacent facilities.

- A small population of Pronghorn on Allen Flat may be impacted by construction or maintenance activities.
- Road construction and habitat loss may impact the Sonoran Desert Tortoise from the San Pedro River Valley to the vicinity of the Tortolita Substation and near the Picacho Mountains.
- Habitat for the Tucson Shovel-nosed Snake may be impacted near the Tortolita Substation and the Picacho Mountains.

SE mitigation measures 1-6 would be applied to address noxious weed and erosion control, restoration of vegetation, and reclamation of construction roads or other areas specified in the POD, reducing effects to wildlife. A posted reasonable construction speed limit could minimize potential collision risk to wildlife in road areas, and construction activities may be constrained during certain seasons, such as during the Desert Bighorn Sheep migration, to address needs of special-status species at specified locations. Debris and trash is to be properly contained and regularly removed from the Project to an appropriate landfill site. Construction excavations are to be fenced or covered to preclude injury or trapping of wildlife or livestock. Standard mitigation measures recommended by the AGFD, including preconstruction clearance surveys and monitoring, would be applied in Sonoran Desert Tortoise habitat. Post-construction access may also be controlled.

A Migratory Bird Conservation Plan and an Avian Protection Plan will be prepared and implemented as conditions of the Notice to Proceed in accordance with the Migratory Bird Treaty Act. Mitigation measures to reduce the collision risk for Sandhill Cranes and other large birds include methods to improve visibility, such as the use of bird diverters on groundwires and guywires. Since the transmission line conductors will span most aquatic habitats, there should be no significant impacts to aquatic and shorebird nesting habitat. Structures may need to be placed in wider portions of the Rio Grande floodplain, but they will not be located near shore habitat and will not permanently affect these species. The Project would have minimal effect on prey and forage availability for these species. Timing of construction to avoid avian nesting or breeding times would help minimize impacts to birds.

### **3.5.2.3 Cultural Resources**

Four types of impacts that could affect archaeological sites during and after construction of the Project are:

- direct and permanent ground disturbance during construction
- direct and permanent visual and auditory intrusions
- indirect and temporary visual intrusions during construction
- indirect and permanent disturbances due to changes in public accessibility

Construction and operation of the BLM Selected Alternative could impact seven known habitation sites and the McClellan Wash Archaeological District. The selected transmission line route crosses the El Camino Real, Butterfield, Gila, Janos Copper, Zuñiga, Southern Pacific Mail, and General Cooke's Wagon Road/Mormon Battalion trails. Potential impacts to National

Scenic and Historic Trails have been documented in the Final EIS and Appendix L of the Final EIS, the National Scenic and Historic Trails Assessment.

Impacts to the Gran Quivira were evaluated to assess effects on the setting and feeling of the cultural landscape. Impacts to the views from Gran Quivira are anticipated to be low, and selective mitigation measures such as special tower design or placement could further minimize these impacts.

Consultation with appropriate land management agencies, tribes, and SHPOs is ongoing. Project-specific procedures for complying with the NHPA, including procedures to follow during the execution of the Project, are documented in the PA (Appendix B of this ROD). Intensive pedestrian inventories of the selected route, associated access roads, substations, and associated ancillary facilities will be conducted. All cultural and historic resources identified during the inventory will be evaluated for eligibility to the NRHP.

Direct impacts to significant cultural resources can be effectively minimized, if not eliminated, through mitigation planning and implementation. SE mitigation measures 1–2, 4, 6, 8–11 and 13 will be applied to reduce, or avoid impacts to sensitive cultural resources. For example, in designated areas, structures will be placed to avoid and or span sensitive cultural resource sites or features. Cultural resources will continue to be considered during post-EIS phases of Project implementation in accordance with the executed PA. This would involve intensive surveys to inventory and evaluate cultural resources in the selected corridor and any appurtenant impact zones beyond the corridor, such as access roads and construction equipment yards. As required by the PA, the Proponent must prepare an HPTP to ensure the proper recovery of data and recordation of historic properties identified in the plan prior to construction. The Proponent will also be required to monitor construction activities to ensure that historic properties to be avoided during construction remain undisturbed pursuant to the PA.

#### **3.5.2.4 Visual Resources**

Concern for changes to existing viewsheds and modifications that would alter the landscape character of natural lands is the primary factors related to visual resources. Impacts to residential, travel, and recreational viewers were assessed. In addition, compliance with the BLM's VRM system was assessed to identify areas where the Project would conflict with VRM objectives and where RMP amendments may be required, where no conforming alternatives could be developed that would meet the purpose and need of the Project.

BLM analyzed and will apply SE mitigation measures 1–5, 7–11, 13–14, and 16 to reduce impacts to scenery and viewers (viewing locations or key observation points).

Visual impacts that would occur with construction and operation of the BLM Selected Alternative include:

- In Socorro County, high to moderate-high impacts would occur for residential viewers near Socorro, Willow Springs, and other dispersed residences immediately adjacent to the BLM Selected Alternative. Limited areas of high impacts are anticipated for residences

near Deming, New Mexico, and in the vicinity of San Simon (Cochise County, Arizona) and La Palma, near the Pinal Central Substation.

- Recreation viewers associated with the Stallion and Veranito wilderness study areas (WSA), Sevilleta National Wildlife Refuge (NWR), Johnson (Gordy's) Hill Special Recreation Management Area (SRMA), and the Rio Grande would have high to moderate-high impacts. While the transmission route is sited outside of the Wilderness, high impacts to recreation viewers in the Peloncillo Mountains Wilderness are anticipated as a result of viewing the transmission line from within the Wilderness. Recreation viewers would have moderate-high impacts associated with the Arizona National Scenic Trail and Buehman Canyon Trail.
- High to moderate-high impacts would occur for viewers in New Mexico along Salt Missions Trail Scenic Byway, WSMR Route 3607, WSMR P 5, US Route 54, SR 55, Quebradas Back Country Byway SRMA, El Camino Real (SR 408 and I-25), Geronimo National Scenic Byway, Lake Valley Back Country Byway, and US Route 180.
- High to moderate-high impacts would occur for viewers in Arizona along Cascabel Road, Redington Road, SR 77, Muleshoe Ranch Road, Black Hills Mine Road/Catalina Ridge, Webb Road, and Park Link Drive.
- Noncompliance with BLM VRM Classifications is anticipated for Class II designations in Socorro County and therefore requires amendment to the Socorro RMP.

Mitigation measures and BMPs will be applied to reduce visual impacts where effective and feasible. After the implementation of selective mitigation measures at various locations throughout the Project, residual impacts will be reduced. Mitigation measures include site-specific structure placement, structure selection, and road restoration. In certain conditions, mitigation measures can be effective to achieve compliance with VRM objectives.

### **3.5.2.5 Land Use and Recreation Resources**

The Project is to be constructed across lands owned by federal, state, private, or other entities. Approximately 36 percent of the BLM Selected Alternative route crosses public lands managed by the BLM (185 miles); state lands in New Mexico and Arizona constitute approximately 43 percent (220 miles) of the route; and the remaining 21 percent (110 miles) crosses private or other land. The right-of-way would be acquired on lands that are generally used for grazing, farming, recreation, and open space. BLM and state lands are primarily used for grazing or recreation in open space areas. Residential uses are located on private lands in rural areas and near small cities and towns in the study area.

The Rio Grande Valley supports farming, tourism, and the population centers of Socorro, San Antonio, Truth or Consequences, and Elephant Butte. Other population centers in the study area include Corona, Deming, and Lordsburg. The WSMR and other military installations conduct operations in the air space surrounding the range.

In Arizona, population centers include San Simon, Safford, Willcox, Benson, Vail, San Manuel, Oracle, Marana, Tucson, and Eloy. Farming is concentrated in the Sulphur Springs Valley, San Pedro River Valley, Santa Cruz River Valley, and in Pinal County. Davis-Monthan AFB, Fort

Huachuca, the Western Army National Guard Aviation Training Site, and other military installations conduct training and testing operations in air space in the study area.

A major interstate utility corridor that contains transmission lines, communication facilities, and pipelines is located generally along I-10 through southern New Mexico and southeastern Arizona. Other utility corridors are located in the Rio Grande Valley, and a pipeline corridor crosses the San Pedro River Valley between Cochise and Pinal counties. Approximately 229 miles of the route would be parallel to existing transmission lines, and an additional 102 miles would be parallel to existing pipelines or designated utility corridors, including the BLM-designated West-wide Energy Corridors.

In general, land use impacts are minimized where linear utilities are constructed in established or designated corridors. The alignment of the BLM Selected Alternative route was sited to maximize the use of established utility corridors and to avoid conflicts with incompatible land uses such as wilderness, national parks and monuments, special management areas, wildlife refuges, densely populated areas, and military installations. Impacts to land uses would occur along portions of the route that cross irrigated agricultural lands, residential subdivisions, and areas used for industrial or military testing and training. Mitigation measures and BMPs are necessary to avoid or minimize direct impacts with land uses in most conditions. SE mitigation measures 1–5, 7–10, 13–14, and 16 will be applied to reduce or avoid impacts to land use or recreation resources. There will be no direct displacement of residential, business, or industrial structures. There will be a minimal loss of grazing land. Construction of underground segments as identified in the DoD Mitigation Proposal will require coordination with affected ranchers and landowners to minimize impacts to ranching operations. Temporary impacts associated with construction of three underground segments as identified in the DoD Mitigation Proposal include increased traffic along access roads, and temporary modifications to fencing, gates, and water facilities.

RMPs outline BLM management guidelines, including right-of-way exclusion or avoidance designations. A proposal to construct a new utility crossing a right-of-way avoidance area could require an RMP amendment where there is no viable alternative. The BLM Selected Alternative crosses right-of-way avoidance areas that require such amendments in the Socorro Field Office and Mimbres (Las Cruces District Office) planning areas in New Mexico. As described in Section 2.3 of this ROD, the BLM-selected RMP amendments provide a 400-foot-wide corridor where the Project crosses right-of-way avoidance or noncompliant VRM land classification areas.

### **3.5.2.6 Military Uses**

The DoD and representatives of the military installations provided a description of impacts to the affected military operations areas, which were discussed in relation to the Project alternatives in Section 4.10.6.2 of the Final EIS and Section 3.10.3 of the Mitigation Proposal EA. As the decision-making authority over issuance of a right-of-way across public lands, the BLM considered potential impacts to DoD missions.

Special-use airspace designations, including restricted airspace associated with the WSMR, are considered joint-use between the military and the Federal Aviation Administration (FAA). The

restricted airspace is designated to protect the safety of nonparticipatory aircraft and persons. The FAA ultimately maintains control of the airspace. The FAA does not have regulatory control over the placement of structures on the ground, but does have regulatory control over the lighting of any structures considered as hazards or structures taller than 200 feet. The Project transmission towers are not proposed to exceed 200 feet (above ground); therefore construction and operation of the Project would not affect the restricted airspace in a manner inconsistent with the special-use airspace designations near the WSMR.

The airspace over this land is used for flight operations and training by Holloman and Kirtland AFBs. Holloman AFB also identified three other airspaces used for low-level flight operations (R5107H, R5107C, and R5107J) located directly north of the WSMR. The New Mexico Air National Guard unit based at Kirtland AFB also uses these airspaces for helicopter and tilt-rotor aircraft training operations. Other airspaces west of the WSMR (R5113, R5119, and R5107E) are also used for low-level flight operations. Impacts to military flight operations in restricted airspace could occur if aircraft were to collide with transmission line facilities. To avoid collisions with transmission line conductors or structures (typical height of 135 feet), pilots would have to adjust the flight altitudes for their low-level training missions to acceptable and safer heights in these areas.

The Northern Call-up Area, north of the WSMR, comprises over 1 million acres of BLM, state, and private lands. Pursuant to private agreements between the WSMR and ranchers using the lands, the WSMR requires the evacuation of the Northern Call-up Area prior to and during certain missile testing activities. A malfunctioning missile may be destroyed by detonation after it is launched to prevent major damage to property and structures in the fallout zone. Transmission line facilities could be damaged if a missile is destroyed shortly after it is launched. The Mitigation Proposal was developed by DoD to reduce the risk of impact to WSMR, and the DoD's objection to the Project was removed.

The WSMR provided the BLM with a set of alternative routes that were analyzed in the Draft EIS. These include alternative subroutes 1A and 1A2. The DoD requested that all routes farthest from the northern border of the WSMR be carried forward for further evaluation. The DoD also said that a portion of the WSMR proposed "Route 2" (also named Subroute 1A) would need to be moved farther north to avoid impacts to "critical test profiles," or otherwise would need significant mitigation to "preserve WSMR's unique test capabilities..." Alternative subroutes 1A and 1A2 (BLM selected route) are approximately 28 miles north of the WSMR. In response to WSMR's comments following the Draft EIS, Subroute 1A2 was located along a modified alignment of Subroute 1A1 (Preferred Alternative identified in the Draft EIS) to minimize potential impacts to the transmission lines from errant missiles that could be destroyed by detonation in the vicinity of LC 94. Following publication of the Final EIS, the DoD requested, among other mitigation measures, that the BLM require the burial of three segments along the Selected Alternative (Subroute 1A2) totaling at least 5 miles to mitigate potential impacts to the DoD-mission capability by accommodating a minimum required set of type and diversity of low altitude tests possible in the vicinity of the proposed transmission lines (see Section 2.4 of this ROD).

### **3.5.3 Consideration of Public Comments and Concerns**

In addition to the specific resource issues discussed above, the Agency Interdisciplinary Team considered the effect of each of the alternative routes on paleontological resources, soils, water, vegetation, forest products, rangeland resources, recreation, cultural resources, visual resources, and socioeconomics. All practical means to avoid or minimize environmental harm from implementation of the Selected Alternative have been adopted.

Three rounds of public scoping were conducted in May 2009, October 2009, and April 2010, including 14 separate scoping meetings and over 1,400 public comments were received. The BLM published the NOA of the Draft EIS and RMP Amendments for public review and comment in the *Federal Register* on May 23, 2012. The U.S. Environmental Protection Agency (EPA) published the NOA of the Draft EIS for public review and comment in the *Federal Register* on May 25, 2012, which initiated a 90-day public comment period. During the comment period, more than 900 comment letters and over 2,000 individual comments, on the Draft EIS were received from federal, state, and local agencies; special interest groups; and individuals. A list of agencies, organizations, and individuals that commented on the Draft EIS is presented in Appendix J, Table J-1, of the Final EIS. Responses to agency and public comments received on the Draft EIS also are contained in Appendix J of the Final EIS.

Based on agency and public comments received, some expansion of discussions and the addition of information to the Draft EIS were determined to be warranted. Also, in response to agency and public comments received on the Draft EIS and additional information received since the Draft EIS was published, modifications to the BLM Preferred Alternative (subroutes 1A2 and 3A2) were developed for analysis in the Final EIS. The additional alternative route and route modifications are described in Section 2.3 of the Final EIS. Chapters 3 and 4 of the Final EIS include updated analysis reflecting these changes.

Substantive changes made between the Draft and Final EIS are indicated by a vertical black line on the left margin of each applicable page of the Final EIS.

The EA analyzing burial of portions of the route was published in the *Federal Register* for a 30-day comment period on November 28, 2014. The comment period closed on December 29, 2014, and resulted in the submittal of letters from 16 different individuals and organizations, totaling over 200 substantive comments. Substantive comments received during the public comment period fit primarily into two categories. The first category of comments concerned BLM's analysis of impacts on resources and uses in the area (including impacts on wildlife and special status species, impacts to water and soil quality, impacts on cultural resources, economic impacts, impacts on ranching operations, impacts on military operations, and impacts to WSAs and lands with wilderness characteristics). The second category of comments concerned BLM's process, primarily the use of an EA to analyze burial and the preliminary Finding of No New Significant Impact. Based on the comments received during the public comment period, the BLM added information to the EA to more fully address the comments received, including edits to the EA analyzing access roads, the potential need for and mitigation measures to control blasting during construction, the reliability of buried transmission lines, and socioeconomic impacts on ranches in the area. However, the comments did not change BLM's determination that a Finding of No New Significant Impact was appropriate.

Responses to substantive comments within the scope of the purpose of the EA are included as Appendix B of the EA

### **3.6 ALTERNATIVES CONSIDERED BUT NOT STUDIED IN DETAIL**

An alternative may be eliminated from detailed analysis if: (1) it is ineffective (i.e., it would not respond to the agency's purpose and need); (2) it is technically or economically infeasible; (3) it is inconsistent with management objectives for the area (i.e., it does not conform with land use plans); (4) its implementation is remote or speculative; (5) it would be substantially similar in design (function and purpose) to another alternative already analyzed; or (6) it would have substantially similar effects to another alternative already analyzed. Alternatives that were considered but eliminated from detailed analysis included transmission line routes, alternative transmission line technologies, and alternatives to the construction of a new transmission line.

Input from the public and various agencies resulted in the addition, modification, or elimination of alternative transmission line routes and alternative transmission technologies evaluated during the scoping process, as described in Section 2.3 of the Final EIS.

## **4 COMPLIANCE WITH RESOURCE MANAGEMENT PLANS AND OTHER LAWS**

### **4.1 FLPMA COMPLIANCE**

Section 302(a) of FLPMA (43 U.S.C. § 1732(a)) requires the BLM to manage public lands in accordance with the land use plans developed and adopted under Section 202 of FLPMA. Land use plans provide goals and objectives to the BLM to administer lands that would be affected by the action. The Project area includes lands administered by five BLM field offices (Rio Puerco, Socorro, Mimbres, Safford, and Tucson) and two district offices (Las Cruces and Gila).

The Selected Alternative requires amendments to portions of the Socorro RMP and the Mimbres RMP and would require amendments as identified in Section 2.3 of this ROD and as required by 43 CFR § 1610.5-3.

Pursuant to 43 CFR § 1610.3-2(e) and the FLPMA, governors of states involved in the process are afforded a 60-day Governor's Consistency review of the BLM's proposed RMP amendments. The BLM requested the governors of New Mexico and Arizona review the proposed amendments to ensure consistency with state or local plans, policies, or programs. The Governor's Consistency review period ended August 27, 2013. New Mexico Governor Susana Martinez responded on August 16, 2013, while no response was received from Arizona Governor Jan Brewer. The New Mexico Governor's letter described several points of inconsistency, particularly relating to support of military missions in New Mexico. On August 25, 2014, the BLM New Mexico State Office responded to the New Mexico Governor letter, finding that the SunZia Final EIS and associated land use plan amendments were consistent with officially approved or adopted State resource-related plans, as well as the policies and procedures contained therein. The response also referenced BLM's ongoing work with the

DoD to minimize impacts to military operations. The New Mexico State Office response allowed for written appeal to the BLM Director. However, no appeal was submitted by the Governor.

Additionally, the BLM received 12 protest letters from the public pursuant to 43 CFR § 1610.5-2, which were addressed as described in Section 6.2.1 below.

#### **4.1.1 New Mexico**

*Las Cruces District Office, Mimbres Resource Management Plan* (BLM 1993). This plan formally records the BLM's decisions for managing approximately 3 million acres of public land in Doña Ana, Grant, Luna, and Hidalgo counties. The Mimbres RMP has been amended to modify right-of-way avoidance areas in certain locations where the Selected Alternative crosses areas designated as right-of-way avoidance.

*Las Cruces District Office, White Sands Resource Area Resource Management Plan* (BLM 1986); amended by McGregor Range RMP in 2006 (BLM 2006). This plan establishes land use decisions, terms, and conditions for guiding and controlling future management actions in Sierra and Otero counties. The Selected Alternative is in conformance with the White Sands RMP.

*Rio Puerco (Albuquerque) Resource Management Plan Revision and Environmental Impact Statement* (BLM 1985). This plan formally records the BLM's decisions for managing approximately 8.6 million acres of land; including 896,480 acres of public land in Bernalillo, Cibola, Torrance, Valencia, Sandoval, McKinley, and Santa Fe counties. The Selected Alternative is in conformance with the Rio Puerco RMP.

*Socorro Field Office, Socorro Resource Management Plan and Record of Decision* (BLM 2010b). This plan was prepared to allocate resources and provide a comprehensive framework for the BLM's management of 1.5 million acres of public land in Socorro and Catron counties. The Socorro RMP has been amended to modify VRM objectives from VRM Class II and III to VRM Class IV due to the change in project contrast in certain portions of the Selected Alternative corridors.

#### **4.1.2 Arizona**

*Phoenix District - Phoenix Field Office, Phoenix Resource Management Plan and Final Environmental Impact Statement* (BLM 1988). This plan guides the BLM in its management of the Phoenix Resource Area, which consists of approximately 911,000 acres of public land in two distinct geographic regions of Arizona, and includes portions of Pima and Pinal counties located in the Project study corridors. This area is now managed by the Tucson Field Office. The Selected Alternative is in conformance with the Phoenix RMP.

*Gila District (Safford District Office), Safford District Resource Management Plan and Environmental Impact Statement* (BLM 1991). This plan has been prepared to guide the management of 1.4 million acres of public land in the Safford District (southeastern Arizona), including Graham, Greenlee, Cochise, Pinal, Pima, and Gila counties. The Selected Alternative is in conformance with the Safford RMP.

*Gila District - Safford Field Office (Tucson Field Office), Muleshoe Ecosystem Management Plan and Environmental Assessment* (BLM 1998b). This plan was prepared to manage the riparian areas, and associated aquatic, plant, and animal communities. The Selected Alternative is in conformance with the Muleshoe Ecosystem Management Plan.

## **4.2 OTHER LAWS**

### **4.2.1 Endangered Species Act**

The BLM provided a BA to the USFWS that documents the potential occurrence of threatened, endangered, and candidate species along the Selected Alternative route and potential effects on each species (BLM 2013b). The USFWS responded on July 2, 2013 that the Project may adversely affect the Lesser Long-nosed Bat, Mexican Long-nosed Bat, Southwestern Willow Flycatcher and its designated critical habitat, Rio Grande Silvery Minnow designated critical habitat, Kuenzler Hedgehog Cactus, and Todsens's Pennyroyal. In a Biological and Conference Opinion dated November 13, 2013, the USFWS determined that the Project would not jeopardize the existence of any listed species.

On August 15, 2014 the USFWS published a proposed rule to designate critical habitat for the Western distinct population segment of the Yellow-billed Cuckoo (*Coccyzus americanus*, hereafter Yellow-billed Cuckoo) under the Endangered Species Act. On October 3, 2014, the Service published a final rule determining threatened status under the ESA for the Yellow-billed Cuckoo. By memorandum of November 14, 2014, BLM requested that USFWS convert the conference opinion, contained in the biological opinion document in consultation 02EAAZ00-2013-F-0168 for Yellow-billed Cuckoo, to a biological opinion (BO) and to initiate conference for proposed critical habitat for the Yellow-billed Cuckoo. USFWS responded by memo of December 19, 2014, converting the conference opinion for Yellow-billed Cuckoo to a biological opinion and thus completing formal consultation for Yellow-billed Cuckoo, satisfying the requirements that prohibit irreversible or irretrievable commitment of resources pursuant to 50 CFR §402.9. In addition, USFWS advised that it would continue in formal conference with BLM on Yellow-billed Cuckoo proposed critical habitat. Formal conference is not subject to the prohibition on irreversible or irretrievable commitment of resources.

The BLM letter also provided the USFWS with the results of surveys of the Todsens's Pennyroyal in the areas of the project proposed for burial. These surveys indicated that the plant would not be affected by the project, as no plants or suitable habitat were found during ground surveys and habitat analysis. The USFWS letter concurred with BLM's findings and determined that no further consultation on this species is required.

The USFWS required that certain conservation measures take place to avoid or minimize effects to listed species, and provided recommendations for additional discretionary measures. The BLM has included the requirements of the BO as mitigation measures of the Selected Alternative. The BO is included in Appendix C of this ROD, and summarized in Section 5.1.

#### **4.2.2 Clean Air Act**

The screening-level air-quality model performed to analyze potential impacts on air quality could not rule out exceedance of the 1-hour standard for nitrogen dioxide (NO<sub>2</sub>) or the 24-hour standard for particulate matter less than 2.5 micrometers in diameter (PM<sub>2.5</sub>) because of emissions from diesel equipment used during construction. However, both the 24-hour PM<sub>2.5</sub> and 1-hour NO<sub>2</sub> National Ambient Air Quality Standards are based on a 3-year average of sub-maximum concentrations, while the model only predicts maximum concentrations over a construction duration of less than 2 years. Based on the conservative assumptions used in estimating the concentrations and dispersion of criteria pollutants generated from construction activities, violations of the National Ambient Air Quality Standards for PM<sub>2.5</sub>, NO<sub>2</sub>, or any other criteria pollutant resulting from construction is not anticipated. Estimated emission totals are below the conformity determination thresholds (*de minimis* levels) within affected nonattainment and maintenance areas, and would conform with the state implementation plans.

In accordance with their responsibilities under Section 309 of the Clean Air Act, the NEPA, and the Council on Environmental Quality Regulations for implementing the NEPA, the EPA Region 6 office in Dallas, Texas, and the Region 9 office in San Francisco, California, completed reviews of the Final EIS. In a letter from the EPA's Compliance Assurance and Enforcement Division to the BLM State Director dated July 15, 2013, the EPA stated that it has no objection to the proposed action as described in the Final EIS (EPA 2013)

#### **4.2.3 Clean Water Act, Executive Order 11988, and Executive Order 11990**

The Project has been designed to comply with the requirements of Executive Order 11988 Floodplain Management (Carter 1977a), Executive Order 11990 Wetland Protection (Carter 1977b), and Sections 401 and 404 of the Clean Water Act (see Section 3.5.1 of the Final EIS).

#### **4.2.4 Executive Order 12898**

Executive Order 12898 (Clinton 1994) requires federal agencies to address high and disproportionate environmental impacts on minority and low-income populations. Should potentially significant and adverse impacts attributable to the Project fall disproportionately on these populations, environmental justice impacts would result. An analysis of this Project indicated that no significant impacts to environmental justice populations are expected as a result of the construction or operation of the BLM Selected Alternative (see Sections 3.14 and 4.14 of the Final EIS).

#### **4.2.5 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act provides protection for listed migratory birds by prohibiting, except under certain specified conditions, disturbance, or harm to listed migratory birds. On April 12, 2010, the BLM and the USFWS entered into a Memorandum of Understanding to promote the conservation of migratory birds and their habitat in response to the Migratory Bird Treaty Act. The bird species analyzed in the EIS included those species on special-status lists of federal and state agencies, including the USFWS Birds of Conservation Concern bird lists. The

analysis regarding migratory birds presented in the Final EIS is compliant with the terms of both the 2010 memorandum (see Section 3.6.1 and Appendix B of the Final EIS), and Executive Order 13186 (Clinton 2001).

Prior to the issuance of a Notice to Proceed, the BLM will require the development of an Avian Protection Plan and a Migratory Bird Conservation Plan. The Avian Protection Plan is an operational document intended to reduce the risk of bird mortality during construction and operation and will provide for the application of bird diverters and other appropriate measures at specific locations including the Rio Grande, the San Pedro River, and the Picacho Reservoir. The Migratory Bird Conservation Plan is to provide BMPs and specific measures to reduce the effects to migratory birds and their habitat and identify compensatory mitigation developed in cooperation with the USFWS. Compensatory mitigation planning will consider the location and scale of any impacts in relation to suitable compensatory actions, if required. The BLM has included the requirements of these plans as mitigation measures in the Selected Alternative.

#### **4.2.6 National Historic Preservation Act**

The NHPA (54 U.S.C. § 306108) requires federal agencies to consider the potential effects of a proposed undertaking on historic properties eligible for or listed on the National Register of Historic Places (National Register) and provide the ACHP with an opportunity to consider such effects prior to approving the undertaking. The regulations implementing the NHPA require agencies to inventory and evaluate historic properties potentially affected by a proposed undertaking, and seek to resolve potential adverse effects to such properties through consultation with consulting parties, including the SHPO, the ACHP, and potentially affected Indian tribes (See 36 CFR Part 800).

BLM initiated the Section 106 process by submitting letters to the Arizona and New Mexico SHPOs and Indian tribes, and, as permitted under the regulations, elected to prepare a project-specific PA. Development of the PA occurred through consultation with agencies and affected Indian tribes, and resulted in the execution of the final PA on December 17, 2014. Execution of the PA sets forth the steps for meeting the requirements of Section 106. Compliance with the procedures in the PA will represent satisfaction of the agency's Section 106 responsibilities.

## **5 CONSULTATION**

The BLM is required to prepare an EIS in coordination with any studies or analyses required by the Fish and Wildlife Conservation Act (16 U.S.C. § 661 et seq.), ESA (16 U.S.C. § 1531 et seq.), and the NHPA, as codified (54 U.S.C. § 300101 et seq.). In accordance with Executive Order 13175 Consultation and Coordination with Indian Tribal Governments (Clinton 2000), the BLM also must consult with American Indians, on a government-to-government basis, to ensure the tribes are informed of any actions that may affect them.

## **5.1 CONSULTATION UNDER SECTION 7 OF THE ENDANGERED SPECIES ACT**

Under provisions of Section 7(a)(2) of the ESA, a federal agency that carries out, permits, licenses, funds, or otherwise authorizes an activity must consult with the USFWS as appropriate, to ensure the action is not likely to jeopardize the continued existence of any species listed as threatened or endangered, and not likely to result in the destruction or adverse modification of designated critical habitat. The BLM requested early input from the USFWS to identify ESA-listed species and other sensitive biological resources, and received comments on September 14, 2009. The BLM reviewed published lists of ESA-listed species created by the USFWS for all counties crossed by the study corridor, which included BLM records, USFWS documents, other agency reports, primary literature, and regional references. The BLM used this information in the early development of alternative routes for the Project and updated it to include current status of affected species. As part of formal consultation under Section 7 of the ESA, the BLM submitted a BA to the USFWS to address species with the potential to occur in the area of the BLM Preferred Alternative for the Project. The USFWS reviewed the BA and issued a Biological and Conference Opinion and Conference Report on November 13, 2013. (USFWS Consultation No. 02EAAZ00-2013-F-0168) The listing status of the Western population of the Yellow-billed Cuckoo changed following issuance of the Biological Opinion. The BLM provided supplemental information to USFWS on November 14, 2014 to address the final rule listing the species and the proposed rule designating critical habitat. The USFWS responded by memo, dated December 19, 2014, converting the conference opinion for the Yellow-billed Cuckoo as a Biological Opinion, thereby completing the Section 7 consultation. This memo is appended to the BO (Appendix C).

The BO provides reasonable and prudent measures and certain terms and conditions to minimize take of the affected species. Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat to help implement recovery plans, or to develop information.

The BO recommends conservation measures that include those identified in the BA (Appendix C, Table 5) as Standard Mitigation Measures, which were developed as a part of the Project description in the Draft EIS and BLM POD. Standard Mitigation Measures would be applied Project-wide, wherever the applicable affected resource occurs. Standard Mitigation Measures typically include BMPs or address widely distributed resources. Selective Mitigation Measures were also identified in the BA (Appendix C, Table 6), which are used to reduce or avoid site-specific impacts. Additional detail is provided in the BO for implementation of Standard and Selective Mitigation Measures as conservation measures for each of the affected species. USFWS recommended that the BLM work with the USFWS, AGFD, and New Mexico Department of Game and Fish (NMDGF) to implement conservation and recovery actions for the following species.

- Lesser Long-nosed Bat
- Mexican Long-nosed Bat
- Yuma Clapper Rail

- Southwestern Willow Flycatcher and Critical Habitat
- Rio Grande Silvery Minnow and Critical Habitat
- Kuenzler Hedgehog Cactus
- Todsens's Pennyroyal
- Yellow-billed Cuckoo and Proposed Critical Habitat

## **5.2 CONSULTATION UNDER SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT**

The lead federal agency, along with any other federal agency that may be issuing permits or licenses for the Project, is required under Section 106 of the NHPA to consider the effects of its undertakings on properties listed in or eligible for the NRHP (historic properties). Historic properties may include a diversity of archaeological, historical, and traditional cultural resources. The ACHP's regulations implementing Section 106 of the NHPA (36 CFR Part 800) establish the procedural requirements, which include the process for federal agency consultation with the SHPO/THPO, ACHP, Indian tribes, and other interested parties as they assess the effects of an undertaking, and seek to resolve any adverse effects.

The BLM initiated the Section 106 process shortly after the publication of the NOI in May of 2009 for the construction, operation, and maintenance of the Project and the potential BLM RMP amendments. Due to the scope and complexity of the SunZia Project, and because the "effects on historic properties cannot be fully determined prior to the approval of an undertaking" (36 CFR § 800.14(b)(1)(ii)), the BLM determined early in the process that the undertaking would have an "adverse effect" on some historic properties. In accordance with 36 CFR § 800.6(a)(1), the BLM notified the ACHP of the "adverse effect" determination. The ACHP concurred with the determination, and agreed to participate in the resolution of adverse effects.

The BLM coordinated the Section 106 process with the NEPA process, starting with public scoping. As part of the scoping process, the BLM identified and notified consulting parties regarding the Project. Consulting parties include: Indian tribes, SHPOs in Arizona and New Mexico (36 CFR § 800.3(c)), Arizona State Land Department, New Mexico State Land Office, USACE (Section 404 permit compliance), ACHP, NPS, the Applicant, Bureau of Indian Affairs (San Carlos Irrigation Project), Arizona State Museum, Arizona Department of Transportation, New Mexico Department of Transportation, National Trust for Historic Preservation, Archaeology Southwest, Cascabel Working Group, New Mexico Archaeological Council, Arizona Archaeological Council, Pima County, El Camino Real de Tierra Adentro Trail Association, and the Alliance for Regional Military Support. The BLM also coordinated the Section 106 process and NEPA with compliance with other pertinent laws, such as the Native American Graves Protection and Repatriation Act, Archaeological Resources Protection Act, and American Indian Religious Freedom Act.

The Section 106 process entails the identification of historic properties (36 CFR § 800.4). For the SunZia Project, the process began with the review of existing information, commonly referred to as a Class I inventory. This inventory identified gaps in field-inventory coverage across both states. To supplement the Class I inventory, the BLM elected to conduct a sample (Class II) inventory that included areas where cultural resources would likely occur; in particular, survey units were located where the Project alternatives cross rivers and historic trails (El Camino Real

de Tierra Adentro National Historic Trail and the Butterfield Trail). This information provided a useful indication of cultural resources site density and sensitivity, and informed the selection of the BLM Preferred Alternative.

The BLM is using a phased approach to identify and evaluate historic properties, in accordance with 36 CFR § 800.4(b)(2). Further, “the agency official may also defer final identification and evaluation of historic properties if it is specifically provided for in a . . . programmatic agreement executed pursuant to 36 CFR § 800.14(b).” In accordance with 36 CFR § 800.6(a)(1), the BLM notified the ACHP of the “adverse effect” determination. The ACHP concurred with the determination, and agreed to participate in the PA, which will spell out the required process for resolving adverse effects. The Project-specific PA that was developed by BLM and the Consulting Parties was signed by BLM on December 4, 2014, and by the ACHP on December 17, 2014, fully executing the PA. (Appendix B). As part of the approved undertaking, the PA includes consideration of the burial of segments of the transmission line analyzed in the 2014 EA.

The PA establishes required procedures to ensure the identification of historic properties, steps to consider whether the undertaking will adversely affect such identified historic properties, and methods to resolve adverse effects. A Class III inventory will be conducted within the Areas of Potential Effects (APEs) that are specified in the PA, to identify cultural resources and evaluate them to determine whether they are eligible for inclusion on the NRHP. However, since a PA has been executed, the identification and evaluation process provided in the PA will be completed after the ROD and right-of-way permit are issued, but prior to Project construction. The PA also establishes a process to address historic properties discovered or unanticipated effects that occur to historic properties during construction or operation.

Site specific effects to historic properties (36 CFR § 800.5), including those that could be affected by the underground segments of the Mitigation Proposal, will be assessed in compliance with the documentation required to satisfy the Project’s Section 106 obligation under the PA.

Before the BLM will issue a Notice to Proceed for construction, the Applicant must post a financial security (such as a surety bond, irrevocable letter of credit, etc.) with the BLM. This security must be an amount sufficient to cover all post-fieldwork costs associated with implementing the HPTP or other mitigation activities, as negotiated by the Applicant where they contract for services in support of the PA. Such costs may include, but are not limited to, treatment, fieldwork, post-field analyses, research and report preparation, interim and summary reports preparation, and the curation of Project documentation and artifact collections in a BLM-approved curation facility.

### **5.3 GOVERNMENT-TO-GOVERNMENT TRIBAL CONSULTATION**

The United States has a unique legal relationship with American Indian tribal governments as set forth in the Constitution of the United States, treaties, executive orders (e.g., Executive Order 13175), federal statutes, federal policy, and tribal requirements, which establish the interaction that must take place between federal and tribal governments. An important basis for this relationship is the trust responsibility of the United States to protect tribal sovereignty, self-determination, tribal lands, tribal assets and resources, and treaty and other federally

recognized and reserved rights. Government-to-government consultation is the process of seeking, discussing, and considering views on policy, and/or, in the case of this Project, environmental and cultural resource management issues.

Tribal consultation is required under the NEPA and NHPA when undertakings have the potential to affect properties significant to Indian tribes. As part of the BLM's government-to-government consultation, tribal officials for 29 tribes were notified in May of 2009 and April of 2012 about the Project and provided updates throughout the process. Tribes that specifically communicated non-interest in the Project were no longer contacted. Government-to-government meetings were held on several occasions with various tribes to provide information about the Project and to hear and consider information provided by the tribes, and to address any concerns or questions.

Section 106 consultations were another means for consulting with tribes, although the focus of these meetings was on cultural resources, and such discussions are not in lieu of government-to-government consultations. Many tribes participated in the meetings that were held, and in the development of the PA. The tribes that have been actively participating in general Project consultations and as consulting parties for Section 106 include: the Tohono O'odham Nation, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Ak-Chin Indian Community, Pueblo of Isleta, Pueblo of Ysleta del Sur, Pueblo of Zuni, Mescalero Apache, Fort Sill Apache, San Carlos Apache, and White Mountain Apache. Consultation efforts and results of the consultation efforts are documented in the Project administrative record.

## **6 PUBLIC INVOLVEMENT**

### **6.1 SCOPING PROCESS**

As required by the NEPA, the BLM conducted scoping in the early stages of the preparation of the EIS with cooperating agencies to encourage public participation and solicit agency and public comments on the scope and significance of the proposed action (40 CFR § 1501.7). The public was notified of the Project and upcoming scoping meetings through the NOI and other means. In response to comments received, the Project study area was expanded twice to evaluate additional alternative routes, which then resulted in two additional scoping periods.

Comments received during scoping, including the additional scoping periods to address the study area expansions, were analyzed and documented in the SunZia Southwest Transmission Project Scoping Report, Volumes I – III (BLM 2010a), which is available for viewing at BLM field offices and on the BLM Project website<sup>5</sup>. Comments were reviewed to identify issues that should be addressed in the EIS and to help develop a range of reasonable and feasible alternatives to the proposed action. In total, 14 public scoping meetings were held, which were attended by more than 500 members of the public between June 2009 and April 2010. The three scoping periods provided 14 scoping meetings and 180 days for public comment, during which time approximately 1,400 comment submittals were received, including more than 600 during Scoping Period 1; 200 during Scoping Period 2 (through November 2009); and more than 500

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<sup>5</sup> [www.blm.gov/nm/sunzia](http://www.blm.gov/nm/sunzia)

during Scoping Period 3 (through June 2010). In general, comments from both the public and agencies related to the Project need, benefits, and impacts on the environment.

## **6.2 PUBLIC REVIEW PROCESS**

Concurrent with the distribution of the Draft EIS and RMP Amendments, an NOA of the draft document for a 90-day public review and comment period was published in the *Federal Register*; the public review and comment period started on May 25, 2012 and ended on August 22, 2012. The Draft EIS and RMP Amendments was sent to cooperating agencies, agencies with a potential interest in the Project, and others who requested copies. Printed versions of the Draft EIS documents were made available for review at libraries, BLM offices, and public meeting sites and were also provided in response to individual requests.

The availability of the Draft EIS and RMP Amendments for public review and comment, along with the locations and times of public meetings, was announced by the BLM in news releases and paid newspaper legal notices and advertisements. The documents were also posted on the Internet. In addition, Project newsletters were mailed to individuals, agencies, and organizations that requested notification of the availability of the Draft EIS and RMP Amendments. During the 90-day public review period, 10 public open house meetings were held in June and July 2012, for the BLM to provide information and to receive public input on the Draft EIS and RMP Amendments. More than 900 comment submittals (letters or other correspondence), which included more than 2,000 individual comments, were received. Substantive comments and responses to those comments were published in Appendix J of the Final EIS.

In total, public involvement for the SunZia Project has included 24 public meetings (14 scoping meetings and 10 public meetings following publication of the Draft EIS), and 270 days of public comment (180 days during scoping, and 90 days during the Draft EIS public review). In addition, the BLM provided a 30-day public protest period following publication of the Final EIS on June 14, 2013.

For purposes of the EA for the Mitigation Proposal, individual landowners and allottees (or leases) with ranch properties located in the three transmission line burial segment corridors in Torrance and Socorro counties were contacted. Meetings were held in August 2014 and included on-site visits with several members of the ranching community to discuss the Mitigation Proposal. The meetings included site visits with the landowners, BLM, Project representatives, and NMSLO and DoD personnel. In addition the BLM initiated a 30-day public comment period following publication of the EA on November 28, 2014.

### **6.2.1 Public Protests Received on the Proposed Plan Amendments**

The BLM received 12 protest letters during the 30-day protest period, which ended on July 14, 2013. The protest period was established in accordance with 43 CFR § 1610.5-2. All valid protest issues received on the Final EIS and Proposed RMP Amendments have been addressed in the Director's Protest Resolution Report, incorporated by reference herein and posted at:

[http://www.blm.gov/wo/st/en/prog/planning/planning\\_overview/protest\\_resolution/protestreports.html](http://www.blm.gov/wo/st/en/prog/planning/planning_overview/protest_resolution/protestreports.html)

Two of the twelve timely filed protests were dismissed because they provided comments but did not present valid issues.

Ten of the valid protests presented comments on issues regarding the following topics: (1) NEPA process and BLM's response to public comments; (2) the purpose and need and project objectives; (3) use of the best available science; (4) impact analysis including cumulative effects and mitigation; (5) consistency with local plans and policies; (6) air and cultural resources; (7) environmental justice; (8) impacts on fish, wildlife, plants, and special status species; (9) social and economic interests; and (10) impacts to wilderness characteristics. Responses to these issues are provided in the Protest Resolution Report, and each of these ten protests was denied.

## **6.2.2 Public Review of the EA for the Mitigation Proposal**

The EA analyzing burial of portions of the route was published in the *Federal Register* for a 30-day comment period on November 28, 2014. The comment period closed on December 29, 2014, and resulted in the submittal of letters from 16 different individuals and organizations, totaling over 200 substantive comments. Substantive comments received during the public comment period fit primarily into two categories. The first category of comments questioned BLM's analysis of impacts on resources and uses in the area (including impacts on wildlife and special status species, impacts to water and soil quality, impacts on cultural resources, economic impacts, impacts on ranching operations, impacts on military operations, and impacts to WSAs and lands with wilderness characteristics). The second category of comments questioned BLM's process, primarily the use of an EA to analyze burial and the preliminary Finding of No New Significant Impact. Substantive comments on the EA and BLM's responses are included in Appendix B of the EA.

Based on the comments received during the public review period, the BLM added information to the EA to more fully address the comments received, including edits to the EA analyzing access roads, the potential need for blasting during construction, the reliability of transmission line burial, and socioeconomic impacts on ranches in the area. However, the comments did not change BLM's determination that a Finding of No New Significant Impact was appropriate.

## **7 CONTACT PERSON**

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