



July 12, 2013

Director (210)
Attention: Brenda Hudgens-Williams
P.O. Box 71383
Washington, D.C. 20024-1383
Email: Brenda_Hudgens-Williams@blm.gov
Fax: (202) 452-5112
Emailed and sent via mail postmarked 07/12/2013

Re: Protest of Resource Management Plan Amendments and Final Environmental Impact Statement for the SunZia Southwest Transmission Project

Dear Ms. Hudgens-Williams:

This correspondence constitutes a formal protest of the Bureau of Land Management (BLM) proposed action and *Final Environmental Impact Statement and proposed Resource Management Plan Amendments* for the SunZia Southwest Transmission Line Project, Bureau of Land Management. BLM/NM/PL-13-04-1610 (June 2013) (hereafter "SunZia Project FEIS/RMPA"). BLM prepared this final environmental impact statement (FEIS) and proposed resource management plan amendments (RMPA) document to analyze and disclose potential effects of the proposed SunZia Southwest Transmission Project (Project). The proposed SunZia Project would include two 500-kilovolt (kV) transmission lines traversing over 500 miles of federal, state, and private lands between central New Mexico and central Arizona.

The FEIS for the proposed SunZia transmission project included three alternatives for the amendment of Resource Management Plans (RMPs) that would be affected by the proposed action (see Section 2.6 of the FEIS). They include the No Action Alternative, a 400-foot corridor alternative, and a 2500-foot corridor alternative. The BLM selected the 400-foot corridor as its preferred plan amendment alternative to be included as an amendment to RMPs for conformance with visual resource management and right-of-way management objectives. The resource management plans addressed include the following:

Socorro RMP, Socorro Field Office (2010) – BLM preferred alternative
Mimbres RMP, Las Cruces District Office (1993) – BLM preferred alternative
Final Safford District RMP and EIS, Safford District Office (1991)"

This protest is made on behalf of members and supporters of the Sierra Club, Center for Biological Diversity, Defenders of Wildlife, Tucson Audubon Society, Huachuca Audubon Society, Cascabel Working Group, Sky Island Alliance, and Coalition for Sonoran Desert Protection. All of these groups participated in the planning process and submitted public comments to BLM. The names, addresses, and phone numbers of contact persons representing each of these groups are contained in Section I of this letter. We incorporate by reference the comments submitted to the BLM on the Draft Environmental Impact Statement for the Proposed SunZia Transmission Project submitted by these respective groups.¹

A Notice of Availability (NOA) of the Final Environmental Impact Statement for the SunZia Southwest Transmission Project in New Mexico and Arizona and Proposed Resource Management Plan Amendments was published in the Federal Register by the Environmental Protection Agency (EPA) and the Bureau of Land Management (BLM) on June 14, 2013. Publication of the NOA by EPA began a 30-day protest period for the Sunzia Project FEIS/RMPA. The deadline for timely submittal of protests with the Director of BLM is July 13, 2013, therefore the submittal of this protest is timely.

BLM planning regulations (43 CFR 1610.5-2) provide for any person who participated in the planning and environmental analysis process and who has an interest that is or may be adversely affected by the BLM planning decision, may protest the approval of the planning decision within 30 days from the date that the EPA publishes the NOA of the Final EIS in the Federal Register.

Protests must be filed with the Director of the BLM in Washington, D.C., and must meet filing requirements prescribed in 40 CFR § 1610.5-2(a). According to this federal regulation, a protest must include: (1) the name, mailing address, telephone number, and interest of the person filing the protest; (2) a statement of the issue or issues being protested; (3) a statement of the plan amendment being protested; (4) a copy of all documents addressing the issue or issues that were submitted during the EIS process by the protesting party or an indication of the date the issue or issues were discussed for the record; and (5) a concise statement explaining why the State Director's decision is believed to be wrong.

This protest letter is organized to meet these filing requirements. Section I of the letter states the interests of the protesting parties and includes the name, mailing address, and telephone number of each contact person representing the groups filing this consolidated protest. Section II of the

¹ For ease of reference, comments of protesting parties incorporated by reference are found in Appendix J of the SunZia Project FEIS / RMPA. Sierra Club –Grand Canyon Chapter comments are identified as Comment ID Number 1600 (p. J-159); Center for Biological Diversity comments are Comment ID Number 2221 (p. J-475); Tucson Audubon Society are Comment ID Number 1601 (J.-209); Cascabel Working Group submitted multiple comments identified by Comment No. 1604 (J-272), No. 2160 (J-390), No. 2161 (J-391), No. 2162 (J-402), No.2164 (J-406) and Comment No. 2392 (J-526). Defenders of Wildlife comments are Comment No. 2100 (J-356); Sky Island Alliance comments are identified as Comment No. 1912 (J-330) and Comment ID No. 2100 (J-356). Coalition for Sonoran Desert Protection comments are identified as Comment No. 1830 (J-324) and Comment No. 2100 (J-356).

letter includes statements of the issues being protested by the parties. Section II also contains cross-references to comment letters or portions of the administrative record where the issues being protested were addressed during the planning process. Section II also contains citations to the SunZia Project FEIS / RMPA being protested where applicable. Section III contains a summary of the reasons why protesting parties believe that the State Director's decisions with regard to BLM's preferred alternative and proposed plan amendments are wrong.

BLM's Proposed Action

The BLM proposed action to issue a right-of-way grant to SunZia for the construction and operation of two 500 kV transmission lines from the proposed SunZia East Substation in New Mexico to the permitted Pinal Central Substation in Arizona.

BLM Preferred Alternative Route:

The BLM preferred alternative for the proposed utility corridor consists of a combination of three subroutes—1A2, 3A2, and 4C2c—one from each of the route groups 1, 3, and 4, for a total length of 515.4 miles. Our protest focuses primarily on the BLM selection of Route Group 4, particularly Subroute 4C2c as the BLM preferred alternative because of its undue and unnecessary adverse environmental and natural resource impacts on the Lower San Pedro Valley.

From the Willow-500 kV Substation (Route Group 4), the route heads southwest and crosses the Sulphur Springs Valley 7 miles north of the Town of Willcox, and continues along a 345 kV transmission line corridor, generally parallel to and north of the I-10. The route crosses the San Pedro River approximately 11 miles north of Benson, turns northwest, Subroute 4C2c 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 and 500 kV transmission line corridors, north of the Tortolita Mountains. The route turns north from a point near the Tortolita Substation toward 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.

Subroute 4C2c cuts northward through the lower San Pedro River Valley. The Lower San Pedro River Valley supports one of the last major free-flowing rivers in the desert Southwest and, as such, provides important habitat for many species. The San Pedro River Valley provides habitat for a great diversity of avifauna and is a hemispherically-important migratory flyway, providing a key migration corridor for neo-tropical birds. It is internationally recognized as a globally important birding area and an important tourist destination.

The Lower San Pedro River is an Important Bird Area of Global Significance as recognized by BirdLife International. The San Pedro River Valley provides habitat for a great diversity of birds, including nesting raptors such as gray hawk (*Asturina nititda=Buteo nitidus*), Mississippi kite (*Ictinia mississippiensis*), common black hawk (*Buteogallus anthracinus*), and zone-tailed hawk (*Buteo albonotatus*). Western yellow-billed cuckoos (*Coccyzus americanus occidentalis*), currently a candidate for Federal listing as a threatened or endangered species, nest in numbers on the lower

reaches of San Pedro River. The high importance of the lower San Pedro River for the recovery of the southwestern willow flycatcher (*Empidonax traillii extimus*) contributed to its designation as critical habitat for the species. The Lower San Pedro is important to State Species of Conservation Concern, including western yellow-billed cuckoo, belted kingfisher, red-naped sapsucker, olive-sided flycatcher, southwestern willow flycatcher, tropical kingbird, thick-billed kingbird, western purple martin, gray hawk, common black hawk, zone-tailed hawk, and Mississippi kite.

It is a hemispherically-important migratory flyway, providing a key migration corridor for neotropical birds. During spring migration the riparian zone of the San Pedro provides food and cover for birds and is one of the most important pathways in the region for passerines on their journey north. The Lower San Pedro River is a globally important destination for ecotourists.

The San Pedro River Valley also supports the greatest diversity of mammal species in North America, including mountain lion, black bear, coatimundi, javelina, fox, coyote, badger, three skunk species, mule and white-tail deer, ringtail, raccoon, bobcat, beaver, porcupine, black-tailed prairie dog and 24 species of bats, as well as many other lesser known mammal species.

During the last 20 years, the high quality, unfragmented riparian habitat of Lower San Pedro River Valley has resulted in many lands being acquired for biological mitigation purposes. Recently, the lower San Pedro River Valley has been proposed by the U.S. Fish and Wildlife Service (USFWS) for the establishment of a new National Wildlife Refuge and Collaborative Conservation Initiative. This is a proposal that involves "... interested landowners, land managing agencies, local communities, nonprofit organizations and the public who share a vision of a healthy river system contributing to people's livelihoods and a functioning, hydrologically healthy riparian corridor that supports a diverse and rich nature flora and fauna." The BLM preferred alternative (subroute 4C2c) would bisect the lower San Pedro River Valley and would negatively impact the lands and habitat values in this proposed new wildlife refuge.

I. Interests of Protesting Parties

The members of the following groups have interests that will or may be adversely affected by BLM's proposed action regarding the SunZia Transmission Project. Protesting parties have an interest in ensuring that BLM proposed action complies with the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et seq., the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. § 1701 et seq., and BLM's 15-Year Strategy for the National Landscape Conservation System, BLM Manual 6320, and other federal laws and policies. Some of the protesting parties and their members (e.g. Cascabel Working Group) have private property interests that may be adversely affected by the impacts of the SunZia Project to public lands and resources in the planning area near the places where they reside. Other members of groups who are protesting parties have members who use public lands affected by the proposed action for activities such as hunting, hiking, camping, bird watching, nature viewing, and other forms of outdoor recreation and enjoyment. These groups and their interests are described in more detail below:

**Sierra Club – Grand Canyon Chapter
202 E. McDowell Road, Suite 277**

Phoenix, Arizona 85004-4536
Phone: (602) 253-8633
Contact person: Ms. Sandy Bahr, Director

The Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." Sierra Club has more than 1.3 million members and supporters nationwide, including 12,000 members of the Grand Canyon Chapter. Our members have significant interests in the proposed SunZia Project and its impacts on natural resources. Many of our members enjoy watching wildlife, hiking, backpacking, and other outdoor and educational activities on lands that may be adversely affected by the Sunzia Project. Some of our members live near the affected lands.

The Sierra Club is committed to helping reduce greenhouse gas emissions and limiting global climate change and disruption. Three of the four Sierra Club priority campaigns, Beyond Coal, Beyond Oil, and Beyond Natural Gas are related to transforming the nation's electricity sources from polluting fossil fuels to clean renewable energy and reducing energy use through efficiency and conservation are all essential to meeting our carbon reduction goals. Sierra Club members are working to rapidly increase our nation's energy efficiency and the use of renewable energy resources by advocating for improved appliance and building efficiency and standards to promote them, as well as a rapid ramp-up of distributed generation (mainly rooftop solar), community scale and large-scale renewable energy projects, including solar, wind, and geothermal generating plants. All of these will be necessary to meet our greenhouse gas reductions goals. In the short term, some proposals for large-scale renewable and associated transmission lines will be needed. We seek to minimize any impacts of that proposed transmission on wildlife, air and water quality, and other important environmental values and believe it is incumbent upon the Bureau of Land Management (BLM) to strive for this as well.

Sierra Club has participated in the planning process for the Sunzia Project since BLM initiated the process in 2008. Members and staff have participated in public meetings; we, along with many of our conservation partners, submitted several sets of scoping comments on the project in 2009 as well as a final set of scoping comments in 2010, and comments on the Draft EIS/RMP in 2011 [See SunZia Project FEIS/RMPA, Appendix J, Comment ID Number 1600, Page J-159]. In our comments on the DEIS, we supported and incorporated by reference comments submitted by other members of this coalition, including Defenders of Wildlife, Cascabel Working Group, Sky Island Alliance, Tucson Audubon Society, and the Friends of the Aravaipa Region.

Center for Biological Diversity
P.O. Box 710
Tucson, Arizona 85702-0710
Phone: (520) 784-1504
Contact person: Mr. Randy Serraglio, Southwest Conservation Advocate

The Center for Biological Diversity (CBD) is a national non-profit conservation organization headquartered in Tucson, Arizona. CBD has more than 500,000 members and supporters, more than 10,000 of whom reside in Arizona and New Mexico. CBD is dedicated to the protection of

threatened and endangered species and their habitats. CBD members have a keen interest in the SunZia Project because of its impacts on endangered and threatened species and habitats that CBD's members work to protect.

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions and avoid the worst consequences of global warming. CBD strongly supports the development of renewable energy production, however, like any project, proposed renewable energy transmission projects should be thoughtfully planned to minimize impacts to the environment. In particular, renewable energy transmission projects should avoid impacts to sensitive species and habitats, and should be minimized to avoid the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

CBD has participated in the planning process for the SunZia Project by submitting scoping comments and joining in comments submitted by the Sierra Club – Grand Canyon Chapter [See SunZia Project FEIS/RMPA, Appendix J, Comment ID Number 1600, Page J-159] and submitting separate comments on the draft SunZia Project FEIS / RMPA by letter dated August 22, 2012 [See SunZia Project FEIS / RMPA, Appendix J, Comment ID Number 2221, Page J-475]. In its separate comment letter, CBD supported comments submitted by the Coalition for Sonoran Desert Protection, Cascabel Working Group, Defenders of Wildlife, Tucson Audubon Society, and Friends of the Aravaipa Region.

Tucson Audubon Society (TAS)
300 E. University Boulevard, #120
Tucson, AZ 85705
Phone: (520) 629-0510
Contact Person: Dr. Paul Green, Executive Director

Tucson Audubon Society (TAS) is a 501(c)(3) non-profit non-governmental organization representing approximately 5000 households in southeastern Arizona, primarily in Pima County. The mission of the TAS is to protect and promote the stewardship of the biodiversity of southeast Arizona by connecting people to their natural world through the study and enjoyment of birds. TAS works to conserve and protect habitats where wildlife is at risk from many factors that threaten its existence- including the degradation and fragmentation of watersheds and habitat caused by development. Tucson Audubon initiated the global Important Bird Areas program in Arizona in 2001.

TAS participated in the planning process on behalf of the interests of its membership based on the potential adverse impacts to birds and either wildlife of the proposed construction and operation of the SunZia Transmission Line. TAS participated in the planning process by submitting scoping comments in 2010 and comments on the draft EIS dated August 22, 2012 [See SunZia Project FEIS / RMPA, Appendix J, Comment ID Number 1601, Page J-209].

Huachuca Audubon Society (HAS)
P.O. Box 63

Sierra Vista, AZ 85636
Phone: (520) 378-4937
Contact Person: Ms. Tricia Gerrodette, President

The Huachuca Audubon Society (HAS) is an Arizona chapter of the National Audubon Society and Audubon Arizona, representing approximately 300 members who reside primarily in Cochise County, Arizona and in the San Pedro River Valley. The mission of the HAS is to “conserve and restore ecosystems so that birds and other wildlife can flourish and enrich the Earth's diversity” [See HAS website at <http://www.huachuca-audubon.org/index.php>].

The HAS participated in the planning process by joining in the comments submitted by the Tucson Audubon Society by letter dated August 22, 2012 [See SunZia Project FEIS / RMPA, Appendix J, Comment ID Number 1601, Page J-209].

Cascabel Working Group
6590 N. Cascabel Road
Benson, Arizona 85602
Phone: (520) 323-0092
Contact Person: Mr. Norm "Mick" Meader, Co-Chair

The Cascabel Working Group is a group representing property owners in the Lower San Pedro River Valley. The members of the Cascabel Working Group have a direct interest in the proposed action because it will adversely affect their private property rights and the enjoyment of adjacent public lands in the Lower San Pedro River Valley. In particular, the selection of the BLM preferred alternative 4C2c directly affects the interest of the members of the Cascabel Working Group because it would have adverse visual and scenery impacts to Cascabel residences with views of the transmission line corridor at the crossing of the San Pedro River and in the Lower San Pedro River Valley

The Cascabel Working Group participated in the planning process by participating in the scoping process and submitting multiple comment letters on the draft EIS [See SunZia Project FEIS / RMPA, Appendix J, Comment ID Numbers 1604, 2160, 2161, 2162, 2164, 2393, and 2412, pp. J-272, J-390, J-391, J-402, J-406, J-526, and J-542 respectively].

Defenders of Wildlife (DOW)
110 S. Church, Suite 4292
Tucson, AZ 85701
Phone: (520) 623-9653
Contact person: Mr. Matt Clark, Southwest Representative

Defenders of Wildlife (DOW) is a non-profit conservation organization dedicated to the protection of all native animals and plants in their natural communities, with over a million members and supporters nationwide, including over 12,200 members in Arizona and New Mexico. To this end, Defenders employs science, public education and participation, media, legislative advocacy, litigation and proactive on-the-ground solutions in order to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction. DOW participated in

the planning process by submitting comments on the DEIS [See SunZia Project FEIS / RMPA, Appendix J, Comment ID Number 2100, Page J-356].

Sky Island Alliance (SIA)

738 N. 5th Avenue, Suite 201

Tucson, AZ 85705

Phone: (520) 624-7080

Contact Person: Ms. Jenny Neeley, Conservation Policy Director and Legal Counsel

Sky Island Alliance (SIA) is a non-profit conservation organization dedicated to protection and restoration of the rich natural heritage of native species and habitats in the Sky Island region of southeastern Arizona, southwestern New Mexico, and parts of Sonora and Chihuahua in northwestern Mexico. SIA works with volunteers, scientists, land owners, public officials and government agencies to establish protected areas, restore healthy landscapes, and promote public appreciation of the region's unique biological diversity. SIA is a membership-based, volunteer organization, with over 1,600 members and 250-300 active volunteers across the Sky Island region. They have logged over 100,000 volunteer hours on conservation projects in the region, including monitoring regional wildlife and movement corridors they use, restoring healthy landscapes, participating in agency planning processes, and working with many different stakeholders to protect biodiversity in the Sky Island region. SIA participated in the planning process by submitting comments on the DEIS [See SunZia Project FEIS / RMPA, Appendix J, Comment ID Numbers 1912 and 2100, Pages J-330 and J-356 respectively]

Coalition for Sonoran Desert Protection (CSDP)

300 E. University Boulevard, #120

Tucson, AZ 85705

Phone: (520) 388-9925

Contact Person: Ms. Carolyn Campbell, Executive Director

The Coalition for Sonoran Desert Protection was founded in 1998 and is comprised of 41 environmental and community groups working in Pima County, Arizona. Its mission is to achieve the long-term conservation of biological diversity and ecological function of the Sonoran Desert through comprehensive land-use planning, with primary emphasis on Pima County's Sonoran Desert Conservation Plan. They achieve this mission by primarily advocating for: 1) the protection and conservation of Pima County's most biologically rich areas, 2) directing development to appropriate land, and 3) requiring appropriate mitigation for impacts to habitat and wildlife species. [See SunZia Project FEIS / RMPA, Appendix J, Comment ID Numbers 1830, Page J-324.]

II. Issues Being Protested

We protest the **Amendments for the Socorro RMP, the Mimbres RMP, and the Safford District RMP and Final Environmental Impact Statement for the SunZia Southwest Transmission Project** on the grounds that it has failed to thoroughly analyze the impacts of the proposed project and thereby failed the National Environmental Policy Act (NEPA), 42 U.S.C. § 4231 *et seq.*, failed to prevent the undue degradation of the resources of these public lands, and thereby failed to

comply with the Federal Lands Policy and Management Act (FLPMA), 43 U.S.C. § 1701 *et seq.*, as well as other federal laws and policies. We raised our concerns regarding these issues in comments submitted to BLM in 2011 during the comment period on the DEIS, and we provided extensive evidence to support our comments. The failure to meaningfully respond to those comments and alter the proposal in response is a compounding failure of the agency and a fatal flaw in the plan.

1. Issues Related to Purpose and Need for the SunZia Project

When new transmission lines are proposed such as the SunZia Project, they must serve a true need and be appropriately located to prevent unnecessary and undue degradation to public lands and to avoid or minimize harm to wildlife, wildlife habitat, wilderness values, and other important natural and cultural resources. Upon review of the FEIS / RMPA for the SunZia Project, the BLM's proposed action to grant a right-of-way for the SunZia Project or the selection of preferred alternative route, particularly Subroute 4C2c are neither justified by demonstrated need nor located so as to sufficiently avoid or minimize negative impacts to sensitive wildlife habitats and resources. The numerous negative environmental impacts of the SunZia Project to areas of high conservation value outweigh the need and the purported benefits of the project. We therefore protest BLM's proposed action to issue a right-of-way grant for the SunZia Project and we urge the BLM Director to reject the preferred alternative, particularly Subroute 4C2c that traverses the Lower San Pedro River Valley, as well as the primary alternative to 4C2c, subroute 4B, and to select the No Action Alternative.

The statement of purpose in the SunZia FEIS / RMPA is misleading, incomplete, and inaccurate.

The purpose statement for the SunZia Project described on pages 1-5 of the SunZia Project FEIS /RMPA is misleading, incomplete, and inaccurate. BLM states in the Introduction to the Executive Summary for the FEIS / RMPA that BLM's "purpose and need for the proposed Project is established by regulatory obligations and directives, and current energy development trends." [See FEIS / RMPA p. E-1]. Unfortunately, these generic statements of purpose and need for the proposed action say little. Moreover, they confuse BLM's legal duties under the Federal Land Policy and Management of 1976 (FLPMA) and BLM's administrative and regulatory obligations to consider applications for rights-of-way and to conduct a planning process with the need to prepare an adequate description of the purposes or objective need for the SunZia Project itself. The Purpose and Needs Section of the FEIS / RMPA falls woefully short in providing an adequate or adequately supported description of the true purposes of the proposed SunZia Project.

The purposes underlying BLM's proposed action and selection of the preferred alternative appear to include unstated objectives of the project applicant, SunZia Transmission, LLC (SunZia). SunZia's stated objectives are as follows:

"[T]o increase transfer capability, thereby relieving existing transmission congestion and allowing additional electricity to be generated and transported to western power markets and load centers in the Desert Southwest. The Project would be collocated with areas of undeveloped renewable resource potential to provide a path for energy delivery, and would

provide power to help meet growing demand in the western United States and enhance domestic energy security. The Applicant group comprises load-serving utilities and independent developers. The Project would assist load-serving utilities in meeting the requirements to address energy delivery obligations to meet state renewable portfolio standards; while the independent developers' purpose for the Project is to create a market opportunity to satisfy transmission needs that have been identified at local, regional, and national levels." [See SunZia Project FEIS/ RMPA, p. E-2]."

This statement of the applicant's objectives contains numerous statements that are not substantiated by information in the SunZia FEIS / RMPA and they raise substantial questions about the real, objective need for the proposed SunZia Project. For example, the construction of this project is not needed for states to meet renewable portfolio standards.

The purpose of the SunZia Project has been repeatedly framed by both the Applicant and BLM as meeting a need for increased capacity for the transmission of electricity generated from "renewable energy sources." This framing continues in the SunZia Project FEIS / RMPA, despite numerous comments by Sierra Club, Defenders of Wildlife, and other protesting parties that a primary purpose of the SunZia Project actually is to increase transmission capacity for natural gas power generation.

When the Southwestern Power Group (SWPG), the principal investor in the SunZia Project, originally proposed the project, they made clear that the purpose of the SWPG proposal was to provide needed transmission capacity for its own proposed 1,000 megawatt (MW) natural gas-fired power plant located in Bowie, Arizona. Although the original SWPG proposal mentioned providing transmission capacity for renewable energy, SWPG's personal reason for proposing the SunZia project was to permit transmission of power generated at the Bowie power plant both eastward to El Paso and westward to Phoenix and California. SunZia's Willow Substation, described throughout the planning process and included as an integral part of the proposed action, would be sited with the already-permitted Willow switchyard for the Bowie power plant, allowing nearly direct power exchanges between the power plant and SunZia.

In addition, the preferred alternative route connects with existing substations in southwestern New Mexico and the SunZia Project, potentially supplying transmission capacity for several natural gas plants near these substations, thus enabling their future expansion. The preferred alternative route does not go through the Afton generation site and substation which is in the same location as BLM's Afton Solar Energy Zone, despite the fact that the proposed SunZia Transmission Project is in relatively close proximity (20-30 miles) to this area where future large-scale solar energy plants will be incentivized on BLM lands. This supports the view that the SunZia Project intends, as a major component of its design, to provide new transmission capacity for natural gas development, rather than solely renewable energy.

The statement of purpose and need in the SunZia Project FEIS / RMPA is misleading because it continues to imply that nearly the sole purpose of the project is to provide transmission capacity for renewable energy development. Despite numerous comments from Sierra Club, Defenders of Wildlife, Sky Island Alliance, and other protesting parties, BLM continues to downplay or is silent about fossil fuel generated sources that the SunZia Project appears to be routed to serve. For

example, the SunZia Project FEIS / RMPA states at page E-2: “The Project would be collocated with areas of undeveloped renewable resource potential to provide a path for energy delivery....” The FEIS / RMPA goes on to say: “The Project would assist load-serving utilities in meeting the requirements to address energy delivery obligations to meet state renewable portfolio standards....” These assertions imply that the primary purpose and need for the SunZia Project relates to providing transmission line capacity for renewable energy development. The SunZia FEIS / RMPA does not describe the fuller purpose of the SunZia Project, which is to provide access to and increased transmission capacity for natural gas generation. For this reason, the purpose and need statement in the FEIS / RMPA is incomplete and misleading.

The stated purpose and need for the SunZia project is inconsistent with the scope of reasonable alternatives considered in the FEIS /RMPA and thus is in violation of NEPA requirements. BLM is required to “specify the underlying purpose and need to which the agency is responding in proposing the alternatives, including the proposed action.”² BLM must first identify the purpose and needs to which it is responding to before it can determine the scope of reasonable alternatives that should be considered to meet the identified purpose and needs. The stated goals of a project necessarily dictate the development of the range of reasonable alternatives.³ The Council for Environmental Quality has made it clear that when an agency is determining the scope of alternatives to be considered, the emphasis must be on what is “reasonable,” not on what an applicant prefers. “Reasonable” alternatives include those that are practical or feasible from a technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.”⁴

If the purpose and need for the SunZia Project is to provide transmission capacity for renewable energy developments, then BLM would develop a range of alternatives to accomplish that purpose. If the purpose and need for the SunZia Project is to provide transmission capacity for natural gas power generation, then BLM would develop a range of alternatives that more closely resemble the alternatives considered in the SunZia Project FEIS / RMPA. It appears that the real purpose and need for SunZia is to try to provide greater market access for independent energy producers, whether renewable or non-renewable. BLM must more completely identify the purpose and need for the proposed project before it can determine the scope of reasonable alternatives that should be considered in order to meet the purpose and need. The stated purpose and need for the project necessarily dictates the range of reasonable alternatives.

2. Issues Related to Environmental Impacts

a. Issues Related to Air Quality

We submitted comments on the draft EIS questioning the BLM assertion that the proposed action would have no significant impacts to air quality resulting from the construction and operation of the transmission line and concrete batch plants. We pointed out that BLM failed to address the larger air quality issue that there would be adverse air quality impacts

² 40 CFR §1502.13

³ *City of Carmel-by-the-Sea v. Dept. of Trans.*, 123 F. 3d 1142, 1155 (9th Cir. 1997).

⁴ Forty Most Asked Questions Concerning CEQ’s NEPA Regulations, 48 Fed. Reg. 18,026 (March 16, 1981).

associated with an increase in fossil fuel-generated electricity associated with the SunZia Project. We commented that if the SunZia Project would encourage development of natural gas-fired power plants like the Bowie Generating Station, the likely result will be increased nitrogen oxide emissions, toxic air emissions, and other pollutants. We urged BLM to address this issue in the FEIS / RMPA. BLM did not provide a substantive response to this issue in its responsiveness summary nor does the FEIS / RMPA provide an analysis of the potential for adverse air quality impacts as a result of implementation of the proposed action.

b. Water Resources

FEIS / RMPA - Executive Summary, Section ES.4.4: Water Resources pp. E-5 and E-6 and FEIS / RMPA; Chapter 3- Affected Environment, p. 3-57

BLM's description and analysis of the environmental impacts on water resources is inadequate. BLM states at page E-5 of the Executive Summary and in Section 4.5.1.1. on page 4-54 of the FEIS/ RMPA:

“Impacts to surface water could result from placement of structures, construction of access roads, or temporary work areas. Direct impacts to perennial surface water features could include sedimentation from fugitive dust deposition or access road construction, removal of riparian vegetation, bank alteration, accidental contamination associated with spills of environmentally harmful material, damage to wetlands, or the introduction of invasive species.”

As we noted in its comments on the DEIS, the SunZia Project transmission lines will cross some of the most important waterways in the Southwest. The water resources component of our protest focuses primarily on the environmental impacts associated with the BLM preferred alternative route 4C2c as it traverses the Lower San Pedro River Valley. The primary alternative route being considered in southeastern Arizona, 4B through the Sulphur Springs Valley, which crosses the Galiuro Mountains between the Aravaipa and Galiuro Mountains Wilderness Areas, is equally sensitive or more so. Most of the concerns expressed throughout this protest about the preferred alternative 4C2c apply to that route as well.

The San Pedro River is one of only two major rivers that flow north out of Mexico into the United States, and it is one of the last undammed rivers in the entire Southwest. The San Pedro River Valley is a globally Important Bird Area. The riparian forest and adjacent Sacaton grasslands provide critical stopover habitat for millions of migrating birds each year. The San Pedro River Valley contains one of the planet's most significant Fremont cottonwood/willow gallery forests. Because of the hemispheric significance and importance of these riparian areas, the upper San Pedro River watershed was designated as the first Riparian National Conservation Area in the United States in 1988.

The San Pedro River basin is home to at least 84 species of mammals, including jaguar, black bear, coatimundi, bats, and beaver. Fourteen species of fish, including imperiled native species such as Gila chub, longfin dace, desert sucker, roundtail chub, Sonora sucker, and speckled dace, may be found here. The diverse habitats are also home to 41 species of

reptiles and amphibians, including the Sonoran tiger salamander and lowland leopard frog. There are more than 100 species of breeding birds, including the imperiled yellow-billed cuckoo, and, seasonally, more than 250 species of migratory birds moving through the San Pedro River Valley.

Subroute 4C2c – BLM Preferred Alternative Impacts on Water Resources

The final FEIS / RMPA does not adequately address or respond to impacts on environmentally sensitive area such as the lower San Pedro River Valley. Impacts to surface water resources, including the San Pedro River and its tributaries, could result from the placement of structures and the construction of access roads and temporary work areas.

Direct impacts to the San Pedro River and its tributaries include sedimentation from project-related disturbances, fugitive dust deposition, temporary and permanent fill associated with the construction of roads and access routes, removal of riparian vegetation, bank alteration, accidental contamination associated with spills of environmentally harmful material, damage to wetlands, and introduction of non-native species of plants and animals.

The construction of access roads would likely require crossing many intermittent and ephemeral stream channels in the lower San Pedro River Valley. These crossings could require the placement of temporary or permanent fill into stream channels, as well as structures that support the crossing and protect water resources (e.g., bridge pilings, culverts, wing walls, etc.). Temporary impacts would result from temporary crossings or fill used to cross intermittent or ephemeral tributaries with little to no stream flow or on temporary access roads.

BLM has greatly underestimated the significance of intermittent and ephemeral sections of waterways. The FEIS / RMPA primarily focuses on perennially flowing waters when discussing impacts to wildlife species. Ephemeral and intermittent waters can be just as important as perennial waters. In fact, they are often more important in the Southwest because of the relative absence of perennial waters. Eighty-one percent of streams in the arid and semi-arid Southwest are ephemeral and intermittent streams. They provide important functions and values:

“These streams provide landscape hydrologic connections; stream energy dissipation during high-water flows to reduce erosion and improve water quality; surface and subsurface water storage and exchange; ground-water recharge and discharge; sediment transport, storage, and deposition to aid in floodplain maintenance and development; nutrient storage and cycling; wildlife habitat and migration corridors; support for vegetation communities to help stabilize stream banks and provide wildlife services; and water supply and water-quality filtering.” Because of their significance, it is recommended that these streams not be looked at individually, but that “[c]onsideration of the cumulative impacts from anthropogenic uses on these streams is critical in watershed-based assessments and land management decisions to maintain overall watershed health and water quality.” The Final EIS must address impacts to all water resources, including intermittent and ephemeral streams and the species that

rely on them, including fish species such as Apache trout and amphibians such as the Chiricahua leopard frog.”⁵

Modification of stream banks could result in the removal of vegetation that could take many years to recover. Sedimentation potential would increase, depending upon the extent of disturbance and the amount of re-contouring needed. Permanent impacts would result from stream channel crossings, into which structures would be placed in the streambed, potentially causing an irreversible loss of riparian vegetation on either side of the crossing. The removal of unique riparian habitat, increased sedimentation, and reduced water quality are among the primary adverse environmental effects on surface water resources associated with the Sunzia Project.

Direct impacts to intermittent surface water features are similar to those for perennial waters, although intermittent streams typically have less associated riparian vegetation and, subsequently, are more prone to erosion. Indirect impacts include increased soil erosion due to removal of vegetation. The construction of access roads would likely require stream channel crossings. These crossings could require the placement of temporary or permanent fill into stream channels, as well as structures that support the crossing and protect water resources (e.g., bridge pilings, culverts, wing walls, etc.).

Temporary impacts would result from the construction of temporary crossings or the placement of fill used to cross intermittent or ephemeral tributaries with little to no stream flow or the construction of temporary access roads. BLM acknowledges that, while temporary, these crossings would have the potential to impact stream morphology and ecological function. The modification of stream banks could result in removal of vegetation that could take many years to recover. Sedimentation potential would increase, depending upon the extent of disturbance and the amount of contouring needed. Storm water discharge and quantity of sedimentation to the San Pedro River and its tributaries are correlated to project-related disturbances. Permanent impacts would result from permanent stream channel crossings, into which structures are placed in the streambed, potentially causing an irreversible loss of riparian vegetation on either side of the crossing.

BLM acknowledges that transmission line access roads typically cross, or are close to, perennial and intermittent streams. It has been well documented that construction of new access roads increases erosion and sedimentation of water resources. All construction activities within the lower San Pedro River watershed could result in increased sedimentation to the San Pedro River or its tributaries. Periodic vegetation removal or repair to access roads could have indirect effects because of soil erosion, further increasing sedimentation.

BLM states in the Executive Summary at page E-5:

⁵ Levick, L., J. Fonseca, D. Goodrich, M. Hernandez, D. Emmons, J. Stromberg, R. Leidy, M. Scianni, D.P Guertin, M. Thuczek, and W. Kepner. 2008. The Ecological and Hydrological Significance of Ephemeral Streams in the Arid and Semi-Arid American Southwest. U.S. Protection Agency and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046, 116 pp.

“BMPs and mitigation measures would be effective in minimizing impacts to surface water resources, and no significant impacts are expected to result from the construction and operation of the Project.”

BLM argues that the application of BMPs/engineering design, and standard and selective mitigation measures along the length of Subroute 4C2c in the San Pedro River Valley would mitigate impacts to water resources. Standard mitigation measures (Table 2-10) include a number of for proper road construction methods to ensure stable surfaces both for the sake of reducing Project-related impacts to the environment and continued maintenance access to the Project area. Standard mitigation measure #4 requires siting access roads along the natural landform contour wherever possible thereby reducing both ground disturbance and vegetation removal reducing the potential for erosion of surface soils and subsequent sedimentation. Standard mitigation measure #5 requires that vegetation be left in place where possible which would reduce ground disturbance and maintain subsurface root structure reducing the potential for erosion beyond natural levels to occur. Standard mitigation measure #8 requires surface restoration of various Project-related work areas including restoration to original landform contours, reseeded, and installation of cross drains to control water flow within the Project area which would restore disturbed site stability and reduce the potential for erosion beyond natural levels. Standard mitigation measure #19 requires that tower sites be located at least 200 feet from any stream where practicable which would limit the potential for sedimentation. [See SunZia Project FEIS / RMPA, Appendix J, p. J-170

BLM further argues that the application of selective mitigation measures (Table 2-11) would reduce the potential for Project-related impacts to water resources. These selective measures include not widening or otherwise upgrading existing access roads in areas with erosion susceptible soils, utilizing existing crossings of perennial streams, placing crossings of canyons at the maximum practicable distance, utilizing overland access (i.e., drive-and-crush or cut-and-clear) to the greatest extent possible. All of these measures would further reduce Project impacts to soils susceptible to water erosion [See SunZia Project FEIS / RMPA, Appendix J, p. J-170

There is a better mitigation strategy, the No Action Alternative. We urge the BLM Director to reject the proposed action and select the No Action Alternative, which completely avoids unnecessary and undue natural resource damages to water resources in the Lower San Pedro Valley and obviates the need to implement any mitigation measures. BLM should select an alternative to the SunZia Project that avoids the Lower San Pedro River Valley entirely and that utilizes existing utility corridors in developed areas along or near the Interstate 10 Freeway as is being considered relative to the proposed Southline Project.

BLM preferred alternative Subroute 4C2c through the Lower San Pedro River Valley poses unnecessary and avoidable risks and undue degradation to a globally significant riparian areas. “Subroute 4C2c crosses more mileage of perennial and intermittent streams than the other subroutes, except for 4C3.” (FEIS, p. 4-61) We strongly protest the selection of the preferred alternative that results in the construction of a utility corridor through one of the most ecologically important riparian areas in North America.

3. Issues Related to Biological Resources

Sierra Club, Center for Biological Diversity, Defenders of Wildlife, and other protesting parties are unable to support the BLM proposed action or the BLM preferred alternative because of unacceptable impacts to sensitive wildlife habitats and wild lands. We have consistently maintained through the scoping process, in comments on the DEIS, and in this protest that alternative routes for proposed transmission lines through the Lower San Pedro River Valley and through Sulphur Springs Valley and across the Galiuro Mountains between the Aravaipa and Galiuro Mountains Wilderness Areas, were unacceptable due to high levels of ecological sensitivity of these areas. Not only did BLM ignore these comments, BLM put Subroute 4C2c forward as the BLM Preferred Alternative and 4B as the primary alternative route.

As detailed in multiple comments during the planning process from a diverse set of stakeholders, the San Pedro River Valley is a globally significant area that is a well-documented migratory corridor for birds and other wildlife, and it contains designated critical habitat for several endangered species.

Substantial public and private conservation investments have been made in the Lower San Pedro River Valley. It is an area so special and ecologically valuable that it has recently has been proposed by the U.S. Fish and Wildlife Service for the establishment of a new National Wildlife Refuge and Collaborative Conservation Initiative, an effort "involving interested landowners, land managing agencies, local communities, nonprofit organizations, businesses and the public who share a vision of a healthy river system contributing to people's livelihoods and a functioning, hydrologically healthy riparian corridor that supports a diverse and rich nature flora and fauna" The BLM preferred alternative would run astride this new wildlife refuge. This is not an appropriate area through which to route a major new energy corridor.

The primary alternative, Subroute 4B (Sulphur Springs Valley), would bisect one of the largest unfragmented landscapes in Arizona, the Galiuro-Aravaipa-Santa Teresa wildland complex. Subroute 4B runs for 133.0 miles and proceeds southwest from the proposed Willow-500 kV Substation, parallels two 345-kV transmission lines, and crosses two pipelines and US Route 191 before turning north through the Sulphur Springs Valley. It then moves west and follows the same path as Subroute 4A. This route has even more environmental impacts than Subroute 4A, but both bisect this important wilderness complex.

We have repeatedly expressed strong opposition to routes that would impact the Aravaipa Canyon watershed by cutting through it for more than 20 miles, crossing Aravaipa Creek, and fragmenting connectivity between two wilderness areas – Aravaipa Canyon Wilderness and Galiuro Wilderness. As we noted, this area is one of the largest unfragmented wildland blocks in southern Arizona. A new transmission corridor would impair wilderness characteristics and values and would likely lead to unintended and undesirable impacts to this intact wildland complex. As we expressed previously, this is unacceptable and unreasonable.

Subroute 4B passes within two miles of the Aravaipa Wilderness boundary. The intervening two miles contain roads that are recommended for closure and lands that are recommended as an "Area to be Managed for Wilderness Characteristics" in a Sky Island Alliance report.⁶ This same report contains a citizens' proposal for wilderness additions to the existing Galiuro Wilderness Area managed by the Coronado National Forest, which, together with the sensitive BLM lands to the north, constitute a priority area for wildlands protection and maintenance of north-south ecological connectivity.

Aravaipa Creek supports a lush riparian community and provides important habitat for numerous species of wildlife, including various species of bats, coatimundi, leopard frogs, and mountain lions, among many others. A 17-mile stretch of Aravaipa Creek is perennial and provides some of the best native fish habitat in Arizona, supporting seven species of native fish, including the federally-listed endangered spikedace and loach minnow. Although the upper and lower portions of the creek are intermittent and ephemeral, they continue to support important riparian vegetation and provide habitat for many wildlife species. The importance of ephemeral and intermittent waters is discussed in further detail below.

According to the BLM, more than 150 species of birds have been documented in the Aravaipa Wilderness, including the peregrine falcon, common black-hawk, bald eagle, cactus ferruginous pygmy-owl, and southwestern willow flycatcher.⁷ Because of this, the area is very popular for birding. Aravaipa also supports recreational opportunities for hikers, backpackers, and wildlife watchers, among others. All of these are an important component of the economy and of resource values, which are not adequately addressed in the FEIS.

The subroute bisects one of only two priority cultural resource areas in the Upper Aravaipa Valley and would fragment an important connection between the Galiuro Wilderness located in the Coronado National Forest and the Aravaipa Canyon Wilderness located on BLM lands.

Construction of a large transmission line involves developing temporary construction roads as well as a permanent road under the line. This causes significant habitat fragmentation and invites off-road vehicles. Roads and motorized uses can have serious detrimental effects on habitats and wildlife.^{8,9,10} These effects include direct, indirect, and cumulative impacts, ranging from mortality from collisions with vehicles, modification of animal behaviors, altered use of habitats, facilitation of the spread of exotic, invasive, and parasitic species, adverse genetic effects, and fragmentation of connected habitats.

⁶ Sky Island Alliance. 2005. Aravaipa Ecosystem Management Plan: Management Recommendations. Tucson, Arizona. Available online at <http://www.skyislandalliance.org/media/aravaipa.pdf>.

⁷ Bureau of Land Management. Wildlife: Aravaipa Canyon Wilderness Area Permit System. Safford Field Office. Available online at <http://www.blm.gov/az/st/en/arolrsmain/aravaipa/wildlife.html>.

⁸ Trombulak, S.C., and C.A. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. *Conservation Biology* 14: 18-30.

⁹ Wisdom, M.J., A.A. Ager, H.K. Preisler, N.J. Cimon, and B.K. Johnson. 2004. Effects of off-road recreation on mule deer and elk. *Transactions of the North American Wildlife and Natural Resources Conference* 69: 531-550.

¹⁰ van Riper, C. III., and R. Ockenfels. 1998. The influence of transportation corridors on the movement of pronghorn antelope over a fragmented landscape in northern Arizona. *Proceedings International Conference on Wildlife Ecology and Transportation (ICOWET)*.

Further road-building, construction, and improved off-road vehicle access in this area will also contribute to erosion and sedimentation that could travel downstream through tributaries and impact threatened native fish populations and other species^{11,12} in Aravaipa Canyon, over 20 of which are designated with some sort of special status.

The Nature Conservancy conducted a detailed cumulative effects analysis regarding the Galiuro-Aravaipa-Santa Teresa wildland complex and found that, in the Southwest, it is second only to the Grand Canyon region with regards to size and relative intactness.¹³ The Nature Conservancy found that the proposed SunZia transmission project through this area

. . . would split in half the second largest unfragmented landscape remaining in the southwestern U.S. and introduce habitat disturbance into an area where, for example, there are no paved roads and no roads that cross over the axis of the Galiuros from Aravaipa Valley to the San Pedro River Valley, or from Aravaipa Valley over the Santa Teresas into the Gila River Valley. With the Southwest's largest remaining intact area, the Grand Canyon, already in protected status, **it raises the question of whether mitigation measures are even possible for disturbances to the region's second largest intact landscape.**¹⁴ (emphasis added)

a. The need for a more complete biological inventory before implementing the BLM Preferred Alternative.

The SunZia Project has the potential to affect at least 269 special status species. This level of impact on biological resources is unacceptable, especially considering that this high number does not include species that do not have a special designation. The number of special status species could be higher as BLM has not conducted a complete inventory throughout the SunZia Project area to support the proposed action and the sources the BLM used for data may be outdated or are incomplete.

The FEIS / RPMA does not acknowledge the sources BLM used to determine the presence of a species in the project area and does not provide a complete representation of the species found in the project area. In order to gain a better understanding of what species may be affected by this project, BLM needs to conduct thorough surveys within the project corridor and in the surrounding areas. These surveys should occur at different times of the day, in various seasons, and repeatedly through multiple years as some species may only be present or active during certain times of the day or year or may not be observed in a given year.

¹¹ Environmental Protection Agency. 1995. Erosion, Sediment and Runoff Control for Roads and Highways. EPA-840-F-95-008d.

¹² Grace, J. M. III. 2002. Sediment Movement from Forest Road Systems: Roads: a Major Contributor to Erosion and Stream Sedimentation. The Free Library. Available online at <http://www.thefreelibrary.com/Sediment+movement+from+forest+road+systems%3A+Roads53A+a+major...-a095443346>.

¹³ Marshall, R., D. Turner, and D. Majka. 2012. Cumulative Effects Analysis for Proposed SunZia Transmission Line. The Nature Conservancy.

¹⁴ Ibid

Without this information, the potential impacts to biological resources cannot be adequately described or assessed and therefore BLM did not fulfill the requirements of NEPA or FLPMA.

b. BLM Impact Assessment Methods Are Inadequate

We protest the Impact Assessment Methods that BLM used in the FEIS / RPMA. When determining what species may be affected by the SunZia Project, BLM used an eight-mile wide study corridor. However, when determining impacts to these species, the BLM used the centerline of the project, assuming that species would only be affected if the centerline crossed their range. The BLM must recognize that effects of this project will extend far beyond the centerline of the project. As noted in the FEIS, erosion, increased recreational use, and other effects can be expected as a result of this project and can extend beyond the immediate project area, but these effects are glossed over in Chapter 4.

BLM must also account for changing habitat and range of species. Many species alter their habitat or disperse to new areas, either naturally or as the result of stressors. In addition, as climate change, drought, human development, and other factors alter habitat availability, quality, and range, species occurrence, species' range, and movement will shift. Most of the impact assessments in the FEIS only account for the current range or known locations of the affected species. This is an inadequate assessment.

BLM must also recognize the importance of maintaining habitat resiliency. For example, the FEIS states "vegetation management needs may reduce the potential for future recovery of riparian woodland" (pg. 4-103). This is a significant impact as it represents a long-term degradation of habitat important for a variety of species. However, the BLM does not address the effects of such an impact, nor does it provide suitable mitigation measures.

c. Specific Concerns about animal and plant species. (We have included some specific concerns about certain species, but it is not a comprehensive list.)

i. Wildlife

a) Mammals

American pronghorn (Antilocapra americana)

The management of pronghorn and their habitat represent an important conservation issue for North American grasslands, as pronghorn are an indicator of grassland ecosystem health and are valued as a wide-ranging, native game animal. Because pronghorn range widely to access the most succulent forage available at different locations and at various times of the year and often return to specific fawning grounds, they are a landscape-connectivity dependent species. This means that their life history requirements necessitate an ability to move freely between resource patches, which are often spread out across large landscapes.

Pronghorn have declined in Arizona over the past two decades. In 1987, the statewide population of pronghorn was estimated at nearly 12,000, but by the year 2000 the population estimate had declined to less than 8,000. Grassland habitats in Arizona and New Mexico continue to be subjected to extended drought, habitat conversion and fragmentation from urban and agricultural development, and woodland encroachment. Therefore, the conservation and restoration of remaining viable pronghorn summer and winter ranges, as well as seasonal migration corridors, is even more important if pronghorn populations are to recover.

Pronghorn are especially sensitive to development and habitat fragmentation. This project has the potential to impact the Sulphur Springs Valley population. The FEIS / RPMA discusses some of the potential impacts but does not thoroughly analyze these. For example, on page 4-92, the FEIS notes that potential impacts include creation of new access within previously undisturbed areas of the valley and could encourage development or support increased recreation. This is a long-term and significant impact. The FEIS then contradicts the above statement by saying that impacts during the operations phase would be minimal. The BLM must thoroughly assess potential impacts to species such as this.

The clearance of shrubs in shrub-invaded grasslands associated with this project could actually benefit pronghorn in some areas. The FEIS should have more comprehensively assessed the potential impacts of road construction (i.e. habitat fragmentation), vehicular traffic, and associated disturbance upon pronghorn and pronghorn habitat quality.

Bats

The FEIS indicates that if preconstruction surveys “or other information” demonstrates there are caves or abandoned mines and other habitat within 0.25 miles of the Project, then these would be surveyed for the presence of bat roosts. The FEIS says that surveys for bat roosts would be conducted within 0.25 mile of the project right-of-way and that occupied roosts will be avoided. (FEIS, p.4-78) It does not indicate, however, who will conduct these surveys or when they will be conducted. Because many bat species are highly specialized and can be difficult to locate within their roosts, it is critical that highly trained and qualified biologists conduct these surveys. Likewise, the surveys should be conducted at different times of the year and at various times during the night. Bats use different roost sites during different times of the night and in different seasons. Just because a roost is not occupied at the time of the preconstruction survey does not mean that it is not utilized or of importance.

Impacts to tree-roosting bat species, such as the western red bat (*Lasiurus blossevillii*) or western yellow bat (*Lasiurus xanthinus*), are not discussed in the FEIS. Note that both of these species are special status and have a high likelihood of being present or are present (respectively) in the project area. They are mentioned in Appendix B1, but no impacts as a result of this project are discussed. Vegetation removal is a primary threat to these species. Will preconstruction surveys be conducted to identify presence of these species in the project corridor? When roosting, these species can be very difficult to locate.

White-sided jackrabbit (Lepus callotis)

This state-listed endangered species is endemic in the United States to a very small range of high-quality grasslands in southwestern New Mexico's Hidalgo County. Due to its habitat requirements for intact grasslands, it is an important indicator species for the health of southwestern desert grasslands. While it was found not warranted for Endangered Species Act (ESA) listing in 2010, it is nonetheless a very rare species and is heavily dependent upon grassland conservation and restoration measures for its population survival. The DEIS does not analyze impacts to this species. Links B150a, B140, and B112 are located within the historic range of this species.

BLM should have consulted with the New Mexico Department of Game and Fish (NMDGF) to determine what conservation measures may be appropriate for this species and included those in the FEIS.

b) Birds

This project poses a significant threat to many avian species. Habitat loss, degradation, and fragmentation; direct mortality from construction, operation, increased recreation use, and collision with transmission line structures; disturbance resulting in altered behaviors, reduced nest success, etc.; reduced water quality due to erosion and sedimentation; and much more all have the potential for significant impacts to these species. The mitigation measures discussed in the FEIS/ RPMA have the potential to reduce some of these impacts, but many avian species will still be negatively affected by this proposed action and the BLM preferred alternative. The FEIS acknowledges that potentially significant impacts could occur but then downplays the significance of those impacts when discussing individual species.

Raptors

With regards to raptors, the FEIS / RPMA states "disturbance of nesting raptors may be avoided by constructing outside of nesting season" (FEIS/ RPMA, p. 4-75). When would such construction occur to ensure that disturbance will be avoided? Also, many raptors use the same nest each year. Will existing nests be avoided? Further analysis is needed in order to adequately understand these impacts.

The FEIS states "SE 4 and 6 **may be** employed when feasible and **at the discretion** of the landowner or land management agency, to minimize public access to areas occupied by nesting golden eagles" (pg.4-80, 4-81, emphasis added). "May be" and "at the discretion" make this pretty loose. It is impossible to discern when or if these mitigation measures would ever be implemented. This should have been further analyzed and clarified in the FEIS.

Snow geese (Chen caerulescens)

At various times of the year, the snow goose can be found in almost every state or province of North America. Migrating snow geese concentrate in large numbers at many sites along traditional flyways across the continent. Always near water, snow geese breed on open,

coastal tundra dominated by grasses and sedges. During migration they use both fresh and saltwater marshes, ponds, lakes, streams, meadows, and agricultural lands. Wintering snow geese inhabit a variety of marine and freshwater wetlands, including grassy marshes, wet fields, rice plantations, farm fields with waste grain, and open pastures.

The FEIS should have analyzed and avoided migratory flyways and important habitats for this species in order to prevent collisions and population-level impacts. We recommended avoiding spanning bodies of water or placing lines between heavily-used bodies of water and landscape contexts in which the overhead static wire is obscured or hard to see. BLM should have conferred with the USFWS to determine and implement best practices for reducing transmission line and guy wire collisions with snow geese and all bird species.

c) Amphibians

The FEIS / RPMA greatly downplays the potential impacts of this proposed project to amphibian species. Typically, it is assumed that such species will only be affected in areas where perennial water occurs. However, as discussed in the section on special status species, intermittent and ephemeral waters can be very important to a variety of species, including various amphibians. This should have been considered in the FEIS.

d) Reptiles

The FEIS also downplays potential impacts to reptiles. While the FEIS identifies the potential for construction related activity to cause direct mortality, there is no discussion of impacts related to fragmentation caused by road construction. The FEIS also recognizes that people's attitudes toward snakes is a primary threat, as many are purposefully killed. We appreciate that the BLM has acknowledged this and seeks to reduce this risk through resource awareness training. The training should specifically prohibit the killing of snakes.

e) Fish

Again, the FEIS only considers impacts to areas where perennial water occurs. However, many fish species utilize ephemeral waters for dispersal, etc. The BLM must consider how the various fish species found in or near the study corridor may be affected for all water sources. This should have been included in the FEIS analysis.

f) Invertebrates

Information regarding invertebrate species is, unfortunately, completely lacking, as is acknowledged in the FEIS. As noted above, without an understanding of what species occur in the project area, it is impossible to know the full extent of impacts caused by this project. As the FEIS notes, many invertebrate species are highly endemic and may only occur in relatively small areas. If such species occur within the project area, this project has the potential to disrupt the required habitat and have significant negative impacts on the species, including impacts at both the population or species level.

Snails

The FEIS states that talussnails are present in the project area and acknowledges that habitat degradation and loss are the primary threats to these species. However, the FEIS does not discuss any impacts related to this project nor any mitigation efforts.

The Rosemont talussnail (*Sonorella rosemontensis*) is a candidate species under the ESA. In March 2012, the USFWS issued a pre-proposal notification regarding this species, stating that information indicates that the species may need protection afforded under the ESA as threatened or endangered.

The Sonoran talussnail (*Sonorella magdalenensis*) is similarly being considered for listing as threatened or endangered under the ESA. A notice published in the Federal Register in July 2012 states that listing of this species may be warranted, and the USFWS is in the process of reviewing the status of the species.

Provided this information, the BLM should have analyzed potential impacts to these species. Many snail species are highly specialized and are often found in very small areas. This project could have very significant impacts on these populations and could jeopardize the species.

g) Special-status wildlife species

The various alternatives in the FEIS would affect hundreds of special status species and would traverse and potentially negatively affect designated critical habitat for the southwestern willow flycatcher, Mexican spotted owl, Gila chub, and Rio Grande silvery minnow. The No Action Alternative is the only alternative included in the FEIS that will completely avoid negative impacts to these species and their critical habitat.

For special status species, the BLM must adhere to its special status species policy:

“Objectives of the BLM special status species policy are to 1) conserve and/or recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for these species; and 2) initiate proactive conservation measures that reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing of these species under the ESA.”

The most prudent and cost effective way to achieve these objectives is close consultation with the USFWS and the Arizona Game and Fish Department (AZGFD), avoidance through robust screening, monitoring, effective mitigation, and application of the precautionary principle.

The FEIS states that a “significant impact on biological resources could result if any of the following were to occur from construction or operation of the proposed action.” [See SunZia Project FEIS / RMPA at 4-68] One of the impacts listed is “[f]ragmentation resulting from the addition of new infrastructure to large, currently intact blocks of habitat.” As such, we anticipate that habitat fragmentation associated with the construction and/or improvement

of roads, as well as disturbance from maintenance activities associated with SunZia and subsequent disturbance associated with increased public access, would have a significant impact on the following terrestrial special status wildlife species with relatively large, intact habitat blocks in the affected region: jaguar, ocelot, jaguarundi (if present), Mexican gray wolf, desert bighorn sheep, New Mexico meadow jumping mouse, Arizona striped whiptail, Sonoran desert tortoise, Tucson shovel-nosed snake, northern Mexican garter snake, northern aplomado falcon, cactus ferruginous pygmy owl, and Sprague's pipit, among others. Most, if not all, of these species have been documented to be sensitive to habitat fragmentation and human disturbance.

Should the project move forward to construction, the project proponent must consult with the USFWS and the state wildlife agencies for both Arizona and New Mexico to determine site-specific and/or off-site mitigation measures to avoid, minimize, and offset impacts from fragmentation and disturbance to these species. A crucial mitigation measure that should have been included and implemented globally is to tightly restrict vehicular access to transmission line access roads, so as to avoid an increase in human-related impacts that are facilitated by access, such as direct mortality from vehicle collisions and poaching and disturbances that affect habitat quality such as noise, pollution, accelerated erosion, and the accidental introduction and spread of non-native species. Additional information about some of these species follows.

Chiricahua leopard frog (Lithobates chiricahuensis)

As the FEIS acknowledges, Ladder Ranch supports some of the last remaining populations of Chiricahua leopard frogs in New Mexico. The project crosses Ladder Ranch and has the potential to affect the streams in which this species occurs. However, the FEIS states that no effects to the species are anticipated because the project would cross downstream from any perennial flow. The BLM must consider ephemeral and intermittent waters, not just perennial streams. Ephemeral and intermittent drainages can be of great importance to this species. With regards to this species, with reference to both perennial and ephemeral waters, the USFWS states that, "for Chiricahua leopard frogs, defining the action area of a proposed project must consider the reasonable dispersal capabilities of the species, and the likelihood/extent of any downstream or upstream effects that might arise from the proposed action." The FEIS did not include this analysis.

Other amphibian species are likely to be similarly affected. The FEIS is flawed as BLM failed to consider these potentially significant impacts to amphibian species and did not consider all areas that could be utilized by the species.

Lesser long-nosed bat (Leptonycteris curasoae yerbabuena)

The lesser long-nosed bat is listed as endangered under the ESA. Because it migrates long distances and is one of the nectar-feeding bat species, it must time its travel to coincide with the flowering or fruiting activity of its food plants. The floral resources they depend upon have been threatened by wildland habitat conversion and fragmentation, and maternity roost sites (located in caves and abandoned mines) are sensitive to human disturbance. The

SunZia study corridor is located at the northern limits of the range of the lesser long-nosed bat, and, as noted in the FEIS, “[a]ll known roosts are located more than 2 miles from the BLM preferred alternative.” (SunZia Project FEIS / RMPA, p. 4-78) However, there is also a significant possibility that additional, undocumented roosts could exist within the study area, as it contains concentrations of agaves that could be used as food sources by this species. The lesser long-nosed bat is known to be capable of traveling long distances, in the range of 30 to 60 miles, in a single night to forage. The proximity of the study corridor to other known roosts makes it likely that these populations forage within the study corridor occasionally.

In addition to the above general comments about bats, the FEIS also notes that lesser long-nosed bats are likely to use different roosts in different years to be closer to better foraging areas (Section 3.6.6.1, pg. 3-92, 3-93). If an important roost site is disrupted or destroyed as part of this project, it could have significant impacts on this species. However, such an impact is not discussed in the FEIS.

The BLM must consult with the USFWS regarding conservation measures for this endangered species. Agave and saguaro that would need to be removed should be transplanted near the removal site, and additional plants should be planted for mitigation (and to account for possible unsuccessful transplants) at a minimum of a 3:1 ratio. In addition, the FEIS should have analyzed potential cumulative effects of energy development that would be enabled by the construction of SunZia.

Mexican long-nosed bat (Leptonycteris nivalis)

The FEIS states “There are no known areas within the portions of the study area (Peloncillo and Pyramid mountains) closest to known roosts for the species that contain large concentrations of agaves that would be attractive to it.” (FEIS, p. 3-93) The FEIS does not reference any recent survey data, however. The BLM should not rely on survey records from nearly 20 years ago in order to determine absence or presence of a species. Thorough surveys must be done for species such as this. Without that information, the BLM cannot analyze and mitigate potential impacts from this project or meet its mandates under NEPA and FLPMA.

New Mexico meadow jumping mouse (Zapus hudsonius luteus)

The FEIS says that small mammal surveys will provide information on the local status of the New Mexico meadow jumping mouse (FEIS pg. 4-79). There is no information provided about when these surveys will be conducted, if they are planned, or if this is merely speculative. If the species is located within the project area, will mitigation measures be implemented? Will surveys also be conducted just prior to construction to ensure that this species is not present in the construction area, and will construction be halted if the species is located?

Mexican gray wolf (Canis lupus baileyi)

The Mexican gray wolf does not currently occur in the project area, but this area does include suitable and historic habitat for this critically endangered species and USFWS is currently considering revising the rule under which these animals were reintroduced. The Mexican gray wolf is a subspecies of the gray wolf, and is the most endangered type of wolf in the world. After being extirpated in the United States and with only a few animals remaining in Mexico, Mexican wolves were bred in captivity and reintroduced to the wild in Arizona beginning in 1998. The goal of the reintroduction program, which is only a first step toward full recovery, was to restore at least 100 wolves to the wild by 2006; unfortunately, at the end of 2012, there were still only about 75 wolves in the wild in Arizona and New Mexico. This species remains critically endangered.

A wolf reintroduction effort is also underway in Sonora, Mexico. If a strong population of wolves is established there, it is quite likely they would range northward, including into areas affected by the proposed project. Much of the proposed corridor borders the southern boundary of the 10j reintroduction area for the species and so may particularly affect dispersal and genetic exchange between populations now being established in Mexico and those in the US. The entire SunZia planning area is within the Sky Islands region, which could be identified as a key recovery area in the revised recovery plan that is now underway. North/south habitat linkages for this species are particularly important to protect. New access roads associated with SunZia could provide new access into wolf habitat. The level of vehicular access is directly related to the relative level of habitat security for this species as these wolves are particularly at risk to illegal killings.

The FEIS fails to adequately evaluate the impact of the proposed SunZia project on the Mexican gray wolf. It states that “the potential for the species occurring at present or in the future within the study corridor or being affected by any phase of Project development or operation is very low” (FEIS, pg. 4-78). That assumption is not defensible as, even with the current low numbers in the wild, Mexican gray wolves have ranged across various portions of the proposed SunZia project planning area in search of new territory. Such occurrences will likely occur more often as the population grows and disperses. The Five-Year Review of the Mexican gray wolf recovery program found that movement distances for lone wolves averaged 87 ± 10 km (54 ± 6 mi). In addition, introduced Mexican wolves in northern Sonora, Mexico, could also range into the SunZia project planning area.

The BLM should have fully analyzed the potential effects of creating new roads and public access, including vehicular access, into occupied and potential Mexican gray wolf habitat. SunZia and BLM should consult with the USFWS regarding conservation measures for this species and policy changes anticipated in the new revised recovery plan and associated rulemaking – as the recovery plan will likely be finalized prior to the construction of SunZia.

Jaguar (Panthera onca)

The FEIS assumes that no impacts will occur relative to jaguar, provided how little information is known about the occurrence of this species in the U.S. However, jaguars have been positively identified in Arizona and may travel through the study corridor.

The United States portion of the jaguar's range coincides with the proposed transmission route in Cochise, Pima, Santa Cruz, and Hidalgo counties, making it essential that SunZia planning limit habitat fragmentation and preserve movement corridors for this species. Areas with moderate to high quality jaguar habitat should be given particular consideration, including the area in and surrounding Steins Pass at the Arizona/New Mexico border, the area within approximately 25 miles east of Willcox, Arizona, and between Tucson, Arizona, in the west and State Highway 191 in the east. North/south habitat linkages for this species are particularly important to protect, and tend to coincide with areas with riparian corridors, lands with moderate to high vegetation cover, and rough terrain.

The FEIS assumes that the potential for jaguars occurring within the project area is very low. (FEIS, pg. 4-79) This is not a defensible assumption, however. Comprehensive field surveys to detect and monitor this elusive cat species have not been conducted to date, and their habitat selection in the northern portion of their range is poorly understood. Therefore, instead of dismissing potential effects, the FEIS should have analyzed the impacts SunZia could have upon vegetation associations jaguars have been known to utilize, habitat connectivity for this species, and increased human presence and disturbance in areas containing what is thought to be suitable habitat.

The USFWS recently proposed critical habitat for the jaguar, including in areas to be affected by the SunZia project. The FEIS neither mentioned nor analyzed the impacts this project would have if critical habitat for this species is approved, which could occur as early as next year.

The BLM should have analyzed the impacts the proposed SunZia project would have on vegetation associations, habitat connectivity, and habitat suitability for the jaguar. Many mitigation measures that would apply to ocelot apply to the jaguar as well. The BLM should consult with the USFWS and state wildlife agencies regarding conservation measures for this species and mitigate consistent with the current draft recovery plan, as the recovery plan will likely be finalized prior to the construction of SunZia.

Ocelot (Leopardus pardalis)

The FEIS assumes that limited impacts will occur relative to ocelot, provided how little information is known about the occurrence of these species in the U.S. However, ocelots have been positively identified in Arizona and may travel through the study corridor.

A new recovery plan is being developed by the USFWS for this species. According to the draft recovery plan for the ocelot:

[the species] is listed as endangered throughout its range in the western hemisphere where it is distributed from southern Texas through Central and South America into northern Argentina and Uruguay. No critical habitat has been designated for the ocelot. Currently the U.S. population has fewer than 100 ocelots, found in 2 separated populations in southern Texas, at the northern limit of the species' distribution. A third and much larger population of the Texas ocelot occurs in Tamaulipas, Mexico, but is geographically isolated from ocelots in Texas. The Sonoran ocelot was last documented in southern Arizona in 1964, and presently occurs in northwestern Mexico but little is known about its abundance and distribution.

The FEIS states, "The recent sightings could indicate an expansion of the species' range northward, but more likely represent vagrant animals from northern Mexico. Movements of ocelots in southern Arizona are likely to occur primarily along riparian corridors where elongated ribbons of dense vegetation provide cover for the animals' movements." (FEIS, pg. 4-79) Given that "little is known about its abundance and distribution," these statements regarding the ocelot are not grounded in science or fact, although riparian areas and those with dense shrub cover are, indeed, likely to be among habitat types preferred by ocelot in their northern range. Until more field research is conducted to study and determine ocelot habitat selection in this northern portion of its range, all vegetation types with dense cover and an adequate prey base should be considered potential ocelot habitat.

The BLM must also consider that changing habitat – due to drought, climate change, and other factors – will shift the range and movement patterns for a variety of species, including the ocelot. The fact that two ocelot have been identified in Arizona in the last two years may indicate that such incidences may be increasing. The BLM must take these factors into account when determining possible impacts to species.

The BLM should consult with the USFWS and state wildlife agencies regarding conservation measures for this species and mitigate consistent with the current draft recovery plan, as the recovery plan will likely be finalized prior to the construction of SunZia. All of this should have been considered in the FEIS.

Jaguarundi (Herpailurus yagouaroundi tolteca)

The FEIS assumes that no impacts will occur relative to jaguarundi, provided how little information is known about the occurrence of this species in the U.S. Anecdotal reports of jaguarundi have occurred in areas near the study area, however; while these reports have not been confirmed, the BLM should recognize the potential for this species to occur in the project area and, therefore, analyze potential impacts. Without more definitive studies, the BLM cannot assume that this project will not have any impacts.

The BLM must also consider that changing habitat – due to drought, climate change, and other factors – will shift the range and movement patterns for a variety of species, including these cats.

Golden eagle (Aquila chrysaetos)

This wide-ranging and broadly-distributed species, protected by the Bald and Golden Eagle Protection Act (BGEPA), is likely to be impacted by transmission development to some degree, but because knowledge of their distribution and habitat use is so vague, the impacts of potential development in any particular area cannot be quantified with any accuracy and precision. This does not mean that population-level impacts do not need to be examined, but it does make filling information gaps for this species crucial, both at the local scale through sufficient study of the proposed project area as well as the landscape scale through population level surveys and monitoring.

The BLM should consult with USFWS regarding what surveys should be conducted to predict potential eagle mortality and, if warranted, consider applying for an eagle incidental take permit. Although fatalities most often occur at smaller (≤ 69 kV) distribution lines, electrocution and collision are known causes of mortality for the golden eagle. The design and layout of SunZia's towers, transmission lines and guy wires should minimize risk to eagles. We recommend SunZia develop an Avian Protection Plan (APP) and follow best practices laid out by USFWS, NMDGF, and the Avian Power Line Interaction Committee (APLIC).

Bald eagle (Haliaeetus leucocephalus)

Much of the information regarding the golden eagle provided above also applies to the bald eagle. In addition, the FEIS downplays potential impacts to this species by assuming that this species does not occur in areas where permanent water is lacking (FEIS, Section 3.6.6.1, pg. 3-96). However, no citation is provided to justify this statement. While it is true that bald eagles are most often found in areas with open water, they can be seen in areas without these permanent sources, especially during non-nesting or migration periods. In fact, some bald eagles spend a significant amount of time in areas far from water. The BLM should have considered this in the FEIS.

Mexican spotted owl (Strix occidentalis lucida)

The FEIS states that no impacts are anticipated for the Mexican spotted owl (FEIS, pg. 4-83), a threatened species under the ESA, and, therefore, no mitigation measures are proposed. However, the project would cross through critical habitat for this species. Critical habitat is essential for the conservation of species such as these. The FEIS notes that no habitat suitable for this species occurs within approximately 0.5 mile of the reference centerline of the project. (FEIS, pg. 4-83)

Threats to this species include loss of habitat, particularly old growth forests, disturbance, and impacts from climate change. Locating the transmission corridor away from forested areas and consulting with USFWS to ensure consistency with the species' recovery plan will be essential in corridor planning.

The FEIS acknowledges that this species may occur in the project study area, in the Galiuro Mountains/Aravaipa Canyon, Rincon Mountains, and in the southeastern portion of the Magdalena Mountains. We question if 0.5 miles is an appropriate distance for determining impacts to this species, as the project area may contain foraging habitat. Avoidance, minimization, and mitigation measures consistent with the recovery plan (and implemented in consultation with USFWS) may be warranted for any instances in which the transmission corridor crosses constituent elements of designated critical habitat. The FEIS indicates no mitigation measures for this species.

The BLM should consult with the USFWS regarding conservation measures for the Mexican spotted owl. If the project is determined to have key constituent elements or foraging habitat for this species, mitigation measures should be identified and implemented. These should have been included in the FEIS.

Northern Aplomado falcon (Falco femoralis)

Listed as endangered in southern and western Texas, this species exists as an experimental population in New Mexico. Falcons are threatened by habitat destruction and disturbance at nest sites and may experience direct mortality due to collisions with construction cranes, trucks, or wires and powerlines. Noise and human activity may displace the birds, and removal of nesting sites impacts their reproductive activities.

Both of the primary new build alternative routes in southern New Mexico would cross suitable habitat for this species. Transmission, planning, and construction of the proposed line should be consistent with the species reintroduction plan and its objectives to avoid negative impacts to the falcons. In addition, the FEIS should have analyzed potential cumulative effects of energy development that would be enabled by the construction of SunZia. For example, recent wind development (Macho Springs) in the Nutt Grasslands area, the same area where SunZia is proposed to be routed, has led to the decision to not reintroduce these endangered birds into highly suitable habitat in the Nutt Grasslands due to potential conflicts with wind turbines. We anticipate SunZia will enable future wind, solar, and natural gas development to occur that could not only directly impact suitable habitat and the likelihood of successful natural dispersal and establishment of new populations but could also preclude or dissuade reintroduction efforts in suitable habitats. Therefore, the impact to Aplomado falcon recovery and recovery efforts must be better analyzed.

The FEIS states, "Large areas of available but unoccupied habitat, coupled with the naturally low densities of Aplomado Falcons, would preclude significant negative effects of Project construction related to habitat loss." (FEIS, pg. 4-81) While it is true there are large areas of unoccupied and suitable habitat for the falcon in the project study area, we do not see any basis for the assumption that naturally low densities of this species would preclude significant negative effects from occurring. Effects to this species will depend largely upon the final route that is selected and that route's proximity to occupied habitat and nest locations. Modifying or creating hazards in suitable and unoccupied habitat could preclude birds dispersing or being reintroduced there, which could have significant negative impacts on the species' ability to be recovered.

The BLM must consult with the USFWS regarding conservation measures for this species and conduct mitigation consistent with the current recovery plan. The FEIS should have analyzed direct, indirect, and cumulative effects of the selected SunZia route to the Aplomado falcon. Specifically, BLM should have analyzed the impacts of SunZia, and the foreseeable energy development it would enable, upon Aplomado falcon habitat suitability, recovery, and recovery efforts. It failed to do so in the FEIS.

Yuma clapper rail (Rallus longirostris yumanensis)

The FEIS assumes that the proposed project would not present a significant risk to Yuma clapper rails because they only infrequently use the project area. However, infrequent use does not automatically signify that impacts will be low. Picacho Reservoir and similar areas may become increasingly important as habitat changes occur in other areas of this species' range. Such impacts must be recognized and analyzed.

Cactus ferruginous pygmy-owl (Glaucidium brasilianum cactorum)

The cactus ferruginous pygmy-owl was listed as endangered under the ESA in 1997, but was delisted in 2006 "for reasons unrelated to recovery." In 2011, the USFWS determined that listing was not warranted, but clearly the species is in imperiled and as such is listed as sensitive by the BLM. Habitat for the cactus ferruginous pygmy-owl is located throughout the project corridor area.

Threats to pygmy-owls include loss habitat including that in riparian areas and the spread of invasive species such as buffelgrass that cause unnaturally hot fires to burn, destroying saguaros and other native vegetation.

Pygmy-owls are currently found primarily in Sonoran desert scrub vegetation and riparian drainages and woodlands, as well as palo-verde-cacti-mixed scrub associations. It primarily nests in saguaro cacti cavities, so additional loss of saguaros associated with this project could negatively impact this imperiled species. To improve habitat for this species, it is important to both maintain and restore "woodland vegetation along drainages and tall upland vegetation with saguaros." The BLM should avoid, salvage, and relocate saguaros of transplantable size is important to reduce impacts to pygmy owl habitat. Any activities should also avoid mesquite bosque habitat. The FEIS failed to evaluate the potential cumulative effects upon the owl of energy development that would be enabled by the construction of SunZia.

Because pygmy-owls generally fly short distances a minimal distance above the ground when they seek to cross vegetation openings during natal dispersal and when flying across their home ranges, so consideration should be given to this and creating much wider opening devoid of perching areas should be avoided.

Sandhill crane (Grus canadensis)

Sandhill cranes are primarily birds of open freshwater wetlands, but the different subspecies utilize habitats that range from bogs, sedge meadows, and fens to open grasslands, pine savannas, and cultivated lands. Sandhill cranes occur at their highest breeding density in habitats that contain open sedge meadows in wetlands that are adjacent to short vegetation in uplands. A portion of three distinct populations of sandhill cranes winters in Arizona. Cranes from both the Rocky Mountain (RM) and mid-Continent (M-C) populations winter in the Sulphur Springs and Gila River valleys of southeastern Arizona.

The BLM should make sure it avoids migratory flyways and important habitats for sandhill cranes to prevent collisions and population-level impacts. Areas of concern for sandhill cranes in the project area include the Rio Grande River corridor, the Willcox Playa, and Crane Lake, located in the northern portion of the Sulphur Springs Valley in southeastern Arizona, which supports the second largest over-wintering concentration of this migratory bird.

The USFWS estimates that 174 million birds die each year as a result of colliding with transmission lines. The project should have avoided spanning bodies of water or placing lines between heavily-used bodies of water and landscape contexts in which the overhead static wire is obscured or hard to see. Although a limited number of studies have been conducted on the use of markers or “bird diverters” to reduce collisions, BLM should confer with the USFWS to determine and implement best practices for reducing transmission line and guy wire collisions with sandhill cranes and all bird species. SunZia should develop an APP and to follow best practices laid out by USFWS, NMDGF, and the APLIC, **prior** to any RMP amendments.

Southwestern willow flycatcher (Empidonax traillii extimus)

The endangered southwestern willow flycatcher is found at various locations in the project area, with designated critical habitat along numerous riparian corridors (the species’ breeding habitat) in the region. They are threatened by habitat loss, particularly in these riparian areas.

The BLM should consult with the USFWS regarding conservation measures for the southwestern willow flycatcher. Avoidance, minimization, and mitigation measures consistent with the recovery plan (and implemented in consultation with USFWS) may be warranted for any instances in which the transmission corridor crosses a floodplain or other riparian habitat area. Engineering of structures to span over flycatcher habitat is the preferred avoidance method, and vegetation preservation and/or restoration actions should be implemented where SunZia interacts with flycatcher habitat.

Sprague’s pipit (Anthus spragueii)

Sprague’s pipits could be significantly affected by this project. This species is very sensitive to habitat fragmentation, and it also avoids areas with structures such as those proposed in this project. As the DEIS notes, “Postconstruction restoration in areas of habitat suitable for

Sprague's pipit may not be an effective mitigation, since the birds would likely not occupy areas near tall structures" (FEIS, pg. 4-84).

No mitigation measures are proposed for this species. This project could significantly alter available habitat for this species and represents an unacceptable impact.

Sonoran desert tortoise (Gopherus morafkai agassizii)

The Sonoran desert tortoise is a candidate species for listing pursuant to the ESA. The USFWS Federal Register Notice, 12-Month Finding on a Petition To List the Sonoran Population of the Desert Tortoise as Endangered or Threatened, provides a great deal of information on this species. As part of this, USFWS announced a finding for the Sonoran desert tortoise of warranted but precluded by the need to address other higher priorities.

As its common name denotes, it is found in the Sonoran Desert. Sonoran desert tortoises are most closely associated with the Arizona Upland and Lower Colorado River subdivisions of Sonoran desertscrub and Mojave desertscrub vegetation types. They occur most commonly on rocky, steep slopes and bajadas, and in paloverde-mixed cacti associations. Core, higher density populations of this species tend to be "island like" and associated with steeper terrain and aspects, making the species very vulnerable to connectivity disruptions, especially as associated with the development of roads and other infrastructure. Also, additional perches for ravens can increase the mortality for desert tortoises as ravens use transmission lines as a means to scout out and prey upon young tortoises.

Sonoran desert tortoises are very susceptible to the construction and maintenance activities related to this project. The BLM proposes limited mitigation measures to address this problem and provides inadequate information to determine if these measures are even suitable. For example, preconstruction surveys will only be useful if conducted just prior to construction by a qualified biologist in order to determine if tortoises are in the path of construction. Even then, tortoises can be extremely difficult to locate, and direct mortality will still occur. Indirect effects, including habitat loss and degradation, increased recreation, and road effects, will greatly increase the impacts to this species.

The BLM should have adequately analyzed potential impacts to this species in the FEIS and should consult with the USFWS and AZGFD regarding conservation measures.

Tucson shovel-nosed snake (Chionactis occipitalis klauberi)

This small, 10–17" shovel-nosed snake is primarily restricted to sand dunes and sandy-silty flats on creosote-mesquite floodplain valley floors, but they can also be found in washes and on rocky hillsides with pockets of sand. The geographic range of this subspecies is currently confined to the most arid areas of Pima and Pinal counties. Tucson shovel-nosed snakes burrow as well as crawl and are adapted for "swimming" rapidly through loose sand. The species is nocturnal/crepuscular, typically staying underground during the heat of the day and foraging for insects above ground at night. Currently an ESA candidate species, Tucson shovel-nosed snakes were found to be "warranted but precluded" in March 2010; the finding

states that they are threatened throughout their entire range by habitat loss and fragmentation due to development, roads, potential solar power facilities, agriculture, wildfires, and lack of adequate management and regulation. The USFWS is required to submit a Proposed Rule or a not-warranted finding on this candidate species no later than the end of fiscal year 2014.

The BLM should have analyzed the impacts of road construction and associated habitat fragmentation resulting from the SunZia project and the possibility of additional collection of Tucson shovel-nosed snakes in the FEIS. In addition, the FEIS should have analyzed potential cumulative effects of energy development that would be enabled by the construction of SunZia. SunZia and BLM should consult with the USFWS regarding conservation measures for this imperiled species.

Gila chub (Gila intermedia)

This endangered minnow species is primarily threatened by habitat degradation on the banks of the streams that they inhabit and from upstream runoff in their watersheds. Limiting watershed impacts (erosion, sedimentation, etc.) from construction and preserving riparian corridors will be essential in avoiding impacts upon this species. The mitigation impacts described in the FEIS do little to adequately address threats to this species.

The BLM must consult with the USFWS regarding conservation measures for the Gila chub. It is crucial that measures to avoid, minimize, and control erosion caused by ground disturbance are implemented and monitored for effectiveness.

Rio Grande silvery minnow (Hybognathus amarus)

Regarding the Rio Grande silvery minnow, the FEIS notes that the project would affect the sole remaining population of this species. (FEIS, pg. 4-103) No actions should be permitted that could further threaten this last remaining wild population. The FEIS does not suitably discuss potential impacts to this species, nor does it recognize that impacts to this population could jeopardize the species' survival.

Socorro springsnail (Pyrgulopsis neomexicana)

The FEIS acknowledges that very little is known about the Socorro springsnail, including its distribution within the study corridor. The only known location of this species is within 500 feet of one of the project links. The only mitigation measure offered is to span the spring outflow and centering the drainage between structures (FEIS, Section 4.6.4.5, pg. 4-88).

The impacts of project roads, erosion and sedimentation, and increased recreational access, should have been analyzed. Given the lack of knowledge about this species and its potential distribution, as well as the fact that it has been extirpated from other known localities, it is vitally important to eliminate threats at all known or potential sites where it may occur. This project has the potential to cause population-level impacts that may jeopardize the species.

b. Special-status plant species

The FEIS admits that little is known about the distribution of many of the special status plant species that may be affected by this project. For example, the recovery plan for Todsen's pennyroyal (*Hedeoma todsenii*) suggests that populations of the species may occur within the study corridor (FEIS, pg. 3-106). As another example, the FEIS states that "suitable habitat is probably present over a wide area within the study corridors" for the Chihuahua scurfpea (*Pediomelum pentaphyllum*) (FEIS, pg. 3-106).

In order to better estimate how the project may impact species such as this, thorough studies are needed in order to identify populations. Without this knowledge, impacts cannot be adequately analyzed.

When populations of special status plant species are found, they must also be avoided, which should be made clear in the Final EIS. For example, when discussing the Acuña cactus (*Echinomastus erectocentrus acunensis*), the FEIS states that, "where possible, destruction of plants would be avoided" (FEIS, pg. 4-89). Additional details on how this would be accomplished should have been provided.

The BLM should consult with the USFWS and state agencies regarding conservation measures for special status plant species found within the study corridor.

h) Appendix B1 – additional special status species

Appendix B1 addresses additional special status species that are not listed under the ESA, including those considered sensitive by land management agencies or by New Mexico or Arizona. This list represents hundreds of sensitive species not discussed within the FEIS. Although the appendix provides information about the species and potential threats to those species, it does not discuss how this proposed project may affect those species. This is a serious oversight. Without this information, the BLM cannot determine the full impacts of this project on the affected environment. The BLM must analyze impacts to these species prior to determining whether this project should move forward.

i) Critical habitat

The proposed project would affect critical habitat for a variety of species, including, but not limited to, Mexican spotted owl, Southwestern willow flycatcher, Gila chub, Rio Grande silvery minnow, spikedace, and loach minnow. The FEIS does not adequately recognize the importance of these areas and the significance of any effects on them. Critical habitat is "essential for the conservation of a threatened or endangered species." The project may significantly alter portions of critical habitat, thereby potentially affecting the species at the population level. The FEIS failed to address impacts to these critically important areas.

j) Mitigation measures

As the BLM notes, “impacts of linear features on wildlife are mostly negative and may be difficult to mitigate on-site” (FEIS, p. 4-64). However, the BLM also frequently notes that, with mitigation measures, effects will be minimal on many species. The FEIS / RMPA does not contain adequate information to justify this statement. In fact, based on the information provided in the FEIS, as well as the information we discuss above, impacts to many species will be significant. More information is needed about the various mitigation measures proposed and the estimated effects on the species discussed in the FEIS.

The FEIS frequently mentions that a “posted reasonable construction speed limit could minimize potential collision risk” with a variety of species of concern. What would this posted speed limit be, and how will it be enforced? Even at low speeds, vehicles and roads have significant impacts on wildlife and can result in high mortality rates due to a variety of factors, including road design, driver awareness, etc. Similarly, without strict enforcement, it is highly unlikely that those traveling on the project area would adhere to the speed limit, especially members of the general public who may access the area for recreation, etc. Is there any funding available to ensure enforcement activities? If a suitable speed limit and enforcement plan are not in place, the posted speed limit should not be included as a mitigation effort as it is unlikely to reduce wildlife mortality or injury.

The FEIS notes that debris and trash will be properly contained and removed from the project site. Who will oversee this mitigation measure to ensure that no litter is left on-site?

The FEIS states that all supervisory construction personnel would be instructed on the protection of cultural and ecological resources (FEIS pg. 4-145). Why is this training not required for all construction personnel, rather than just the supervisors? The supervisors cannot oversee every action taken by their staff and will not be able to ensure that personnel do not take inappropriate actions toward these resources. Also, will the person(s) conducting this training be properly trained themselves? Will they have appropriate knowledge of all resources that may be encountered? Will identification of special status species and proper monitoring techniques be part of this training?

The FEIS states that “fences and gates would be repaired or replaced to their original, predisturbed condition” (FEIS, p. 2-92). The BLM should use this opportunity to require the modification of any fences that are currently not wildlife compatible, as appropriate.

The FEIS states that preconstruction surveys will be conducted for special status species in areas of known occurrence or suitable habitat (FEIS, p. 2-93). Who will conduct these surveys? It is important for a biologist who is familiar with each species conduct the surveys to ensure that all species/individuals that occupy the area are identified. This will likely require multiple biologists as many species are very specialized and can be difficult to locate without proper training.

When in relation to the start of construction will these surveys be conducted? Ideally, surveys for special status species should be conducted well in advance of construction so that any

populations can be avoided. In fact, because so little is known about the occurrence of many of the species discussed in the FEIS, these surveys should have been completed prior to completion of the FEIS. Without a thorough understanding of what species are present in the project corridor and surrounding area – or where they are located within the project area – effects to these species cannot be adequately assessed and BLM cannot meet the requirements of NEPA or FLPMA.

Surveys should also be conducted immediately preceding construction or use of an area to determine what species are present. These surveys should not be limited to only special status species but should include all plants and animals in order to minimize negative impacts. If an animal or plant is found within the construction path, it should either be moved or avoided, as appropriate, or construction should cease until the animal has moved or other appropriate action has been taken.

k) Biological Resource Conservation Areas

The proposed project, including all alternatives except the No Action alternative, would have impacts to wildlands, wildlife, and conservation areas in both Arizona and New Mexico. This project would affect 16 conservation areas that are managed for biological resources, as well as several Important Bird Areas. These lands support a wide variety of plant and animal species, including numerous special status species. Many of them are relatively undeveloped and provide increasingly important refuges for the species they support.

The FEIS identifies many, but not all, of these special areas. However, the FEIS significantly downplays the impacts this project will have on these areas and, thus, on the species they support.

The FEIS analysis and inventory of wild lands and conservation areas, as well as the huge economic investment in conservation areas is inadequate, inaccurate, and incomplete regarding the impacts sensitive and important areas. While we appreciate that the both the project proponent and BLM have stated that they seek to minimize such impacts, we think they have missed the mark on this project and, in fact, question how such a major project can cut through these important conservation areas without devaluing both their ecological and economic values. The mitigation offered is inadequate at best.

The proposed SunZia project and related energy development projects will harm these conservation plans and areas and compromise the integrity of the following areas and the surrounding landscapes, as well as others:

- Pima County's Sonoran Desert Conservation Plan Conservation Lands System (Pima County)
- San Pedro River Valley and migration corridor (Globally Significant Important Bird Area, USFWS proposed National Wildlife Refuge and numerous private land conservation easements)
- Aravaipa Canyon/Galiuro Mountains Complex (USFS, BLM, State, Private)
- Saguaro National Park East (NPS)

- Las Cienegas National Conservation Area (BLM)
- Pima County preserves (Pima County, State of Arizona)
- AZGFD-identified wildlife linkages (Arizona)
- Willcox Playa
- Rio Grande River and migration corridor
- Sevilleta National Wildlife Refuge (USFWS)
- Bosque del Apache National Wildlife Refuge (USFWS)
- Ladder Ranch (owned by Ted Turner)
- Lake Valley Ranch (owned by Jim Winder)
- Nutt grasslands complex (BLM, State, Private)
- Peloncillo Mountains Wilderness and wildlife linkage (BLM, State)
- Citizen-proposed wilderness areas (BLM, USFS, State)
 - Padilla Gonzales
 - Stallion Wilderness Study Area and contiguous roadless lands
 - Veranito Wilderness Study Area and contiguous roadless lands
 - Sierra de la Cruz
 - Cibola Canyon
 - Chupadera Wilderness Addition
 - Peñasco Canyon
 - Massacre Peak
 - Magdalena Mountains Units
 - Goodsight Mountains
 - Nutt Mountain
 - Sierra de las Uvas/Robledos
 - Lordsburg Playas
 - Pinaleño Mountains

The above list is not exhaustive, but merely highlights some of the areas most affected by the proposed project. As noted elsewhere in our comments, there are also important unfragmented wildland complexes, Outstanding Resource Waters, and other biological resources that are significantly affected and warrant the selection of the No Action Alternative.

I) Wildlife linkages and habitat fragmentation

“Habitat fragmentation and loss are currently recognized as the principal threats to biodiversity” (FEIS, pg. 4-96). The BLM further reiterates this point by noting that any actions that result in fragmentation would have a significant impact on biological resources. However, although the BLM acknowledges these facts by incorporating these statements into the FEIS, it does not adequately assess potential impacts caused by habitat fragmentation or impacts to wildlife linkages and movements as a result of this project.

The FEIS states that the Arizona Wildlife Linkages Workgroup resulted in the publication of Arizona’s Wildlife Linkages Assessment. However, what the BLM does not recognize is that this assessment is by no means complete; rather, it is an evolving document that should be used as a guideline. As the linkages webpage states: “The assessment document and map are

the initial efforts to identify potential linkage zones that are important to Arizona's wildlife and natural ecosystems. **This is only the first step in a continuing process of defining critical habitat connectivity areas**" (emphasis added).

The BLM should more thoroughly discuss effects of this project on wildlife movement in areas both within and outside of the identified linkages. This analysis should cover the effects of the linear fragmentation (from the transmission line and associated roads and other features), the potential effects that may radiate outward (e.g., increased recreation, illegal spur roads, etc.), and the edge effects associated with these. Natural, undeveloped areas are critically important to a variety of species that will be affected by this project; natural, undeveloped corridors between these areas are just as important. For many of these linkages, the FEIS states that development already occurs in the habitat, so this project would not significantly add to fragmentation. However, any source of fragmentation in these areas – whether new development or additive to other development – should be avoided.

4. Issues Related to Cultural Resources and Tribal Concerns

There are numerous cultural resources located along or in close proximity to the BLM Preferred Alternative route. Direct impacts to these resources come primarily from ground disturbance. Indirect impacts include erosion and increased sedimentation from construction related activities. Another concern relates to the fact that the transmission line corridor will open up miles of previously unfragmented landscape with the likely result of increased vandalism and illegal artifact collecting due to increased public access.

According to the Center for Desert Archaeology and the National Trust for Historic Preservation, the BLM Preferred Alternate will have enormous negative impacts on the significant cultural resources in the Lower San Pedro River Valley. CDA and the National Trust indicated that the BLM Preferred Alternative route that traverses the lower San Pedro Valley was of particular concern.

CDA and the National Trust identified over 500 archeological sites in the lower San Pedro River Valley with approximately one third of them containing architecture and probable human remains. By contrast, the BLM estimates that 188 sites may be affected by the BLM Preferred Alternative. This discrepancy highlights a high degree of uncertainty regarding potential impacts of the SunZia Project to cultural resources. Given this uncertainty and the high value of these resources, CBD and National Trust stated that these important cultural resources were further reason for BLM to select the No Action Alternative and to instead evaluate the use of existing transmission and transportation corridors with less harmful effect.

We share the San Carlos Apache Tribe's concerns about the BLM's "muddled" consultation process on cultural resources. Chairman Terry Rambler of the San Carlos Apache Tribe stated:

The Tribe understands that further consultation and cooperation will occur as the SunZia Project progresses. Nevertheless, the Tribe desires to express its concern at this stage of the NEPA process regarding what appears to be an incomplete and potentially muddled evaluation process of cultural resources in general and Apache cultural resources in particular."

[See San Carlos Apache Tribe comment letter No. 1595].

The Tribe emphatically opposed alternative routes that parallel the San Pedro, Sulphur Springs, and San Simon Valleys because they cross through the heart of the Apache homeland and there had been a significant breakdown in the BLM consultation process and the lack of follow-through. The Tribe “strenuously opposed” BLM’s selection of Preferred Alternative Subroute 4C2c primarily for this reason:

“The Tribe’s concerns regarding the BLM’s and SunZia’s sensitivity regarding Apache cultural sites, sacred areas, plant gathering areas and identification of remains is only exacerbated by the complete lack of sensitivity in the description of cultural resources in the BLM’s Preferred Subroute 4C2c.”

[See San Carlos Apache Tribe comment letter No. 1595].

These comments call into question the accuracy, completeness, and sensitivity of BLM’s assessment of cultural resources and its analysis of the impact of the SunZia Project on those resources. We share the Tribe’s strenuous opposition to BLM Preferred Alternative Subroute 4C2c, as well as to the primary alternative to 4C2c, subroute 4B, and request that BLM implement the No Action Alternative to address these tribal concerns.

5. Issues Related to Visual Resources

Reading the FEIS with respect to visual impacts, one is confronted with tables, classifications, and labels. For example, “Class A scenery typically has a higher degree of landscape relief, diversity of water, and vegetation, which harmoniously combine and result in a high level of aesthetic appeal” (FEIS p. 3-201).

The transformation of a living, vibrant landscape into a classification with a possibility (or not) of being subject to mitigation is indeed breathtaking. The descriptions of the different classes, while comprehensible, seem meant to distance the reader rather than engage him or her.

For example, BLM summarizes the following potentially significant impacts to visual resources that would occur with construction and operation of the BLM preferred alternative for the SunZia Project in Section 4.9.3.5 of the FEIS [pp 4- 201 and 4-202]. In general, construction of the utility corridor and the construction of transmission lines along the BLM Preferred Alternative (Subroutes 1A2, 3A2, and 4C2c) would result in “moderate-high impacts to Class B scenery, which is characterized by a minimally modified setting” [See FEIS, p. 201].

The BLM Preferred Alternative would negatively affect some Class A scenery in New Mexico where the transmission lines would cross the Rio Grande River in an area where the landscape is unmodified and essentially natural [FEIS, p. 202].

High to moderate-high impacts to visual resources would occur for residential viewers near Socorro, Willow, and other dispersed residences along Subroute 1A2 of the BLM Preferred Alternative. BLM

acknowledges that there would be high impacts to residences near Deming N.M. and La Palma because the transmission line corridor “would be immediately adjacent to these high concern level viewers.” [See FEIS, p. 202].

The SunZia Project would have high to moderate-high impacts on visual resources in several wilderness study areas and wildlife refuges, including the Stallion WSA, Sevilleta NWR, Johnson (Gordy’s Hill SRMA, and the Rio Grande because the transmission lines would be viewed within ½ mile of lands where modifications are minimal (i.e., essentially natural landscapes) [See FEIS, p. 202].

In Arizona, the utility corridor along Subroute 4c2c would have high to moderate-high impacts to views observed by hikers using the Arizona National Scenic Trail and the Buehman Canyon Trail. Again, the reason given for the high to moderate-high impacts on visual resources is because the SunZia Project would be viewed in the lower San Pedro River Valley, described as a “landscape with few modifications.” [FEIS, p. 202].

The SunZia Project would have high to moderate-high impacts on visual resources to travelers on many scenic roads and byways, including Salt Missions Trail Scenic Byway, Quebradas Back Country Byway, El Camino Real (SR 408 and I-25), Geronimo National Scenic Byway, Lake Valley Back Country Byway (Subroute 1A2) among others roads that don’t have official scenic byway designations but which traverse relatively unmodified landscapes like the Cascabel Road and Redington Road in the lower San Pedro River Valley [See FEIS, p. 202].

It is difficult to visualize the impact of the construction of 135 foot transmission line towers and access roads cutting a 1,000 foot-wide swath through unmodified landscapes. There is a huge difference between scenery destruction as described by the dry bureaucratic language of the SunZia Project FEIS and the real world impacts seen by residents and visitors to the desert. For example, Mr. Peter Edgell wrote, “On a Sunday morning in 1974 my wife and I were awakened by the sound of a helicopter across the San Pedro River from us. We walked outside and saw to our horror this helicopter was raising a behemoth electrical tower and more were lying in wait to be raised. We had bought our ten acres because of the beautiful views of hills and mountains on all sides of us. Now, almost 40 years later those towers are still upsetting. Several years ago I found I photo taken in 1973 of those hills. They had been so beautiful before the towers were there.” Mr. Edgell and his wife will be treated to more towers should BLM grant the application for the right-of-way and the BLM Preferred Alternative is constructed.

We protest the inevitable scenery destruction that is associated with the SunZia Project and we urge the BLM Director to make a decision that avoids this unnecessary degradation of visual resources by selecting the No Action Alternative.

6. Issues Related to Special Designations and Wilderness

The BLM has a responsibility under FLPMA to inventory and consider lands with wilderness characteristics during the land use planning process. Instructional Memorandum (IM) 2011-154 and Manuals 6310 and 6320 contain mandatory guidance on implementing that requirement. The IM directs BLM to “conduct and maintain inventories regarding the presence or absence of wilderness

characteristics, and to consider identified lands with wilderness characteristics in land use plans and when analyzing projects under [NEPA].”

Under NEPA, BLM must update its inventory of lands with wilderness characteristics along the potential SunZia routes and cannot simply rely on the underlying Resource Management Plans (RMPs) along the potential routes. [See *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1085-87 (9th Cir., 2011) (rejecting agency’s reliance on “stale” inventory data as violating NEPA’s “hard look” requirement). Manual 6310 identifies situations in which BLM must update its inventory, including when: “BLM has new information concerning resource conditions, including public or citizens’ wilderness proposals” and when a “project that may impact wilderness characteristics is undergoing NEPA analysis.”

Lands with wilderness characteristics, including Citizen Proposed Wilderness areas and Wilderness Study Areas (WSAs) should be protected by the BLM and must be considered when evaluating changes to the RMPs. Citizen Proposed Wilderness lands have been inventoried by various groups and have wilderness qualities including naturalness, solitude, and opportunities for primitive and quiet recreation. The lands provide important wildlife habitat and the sensitive nature of these lands and their resources and values makes transmission development inappropriate there. Habitat fragmentation is now widely accepted as one of the leading causes of species endangerment and extinction. Therefore, maintaining the integrity of roadless areas and roadless area complexes is crucial to preserving the integrity and security of wildlife habitat. For this reason, new transmission corridors and associated access roads should follow existing disturbance corridors and avoid traversing currently roadless areas.

7. Issues Related to Social and Economic Concerns

The BLM economic analysis in the FEIS is incomplete and inaccurate. It does not consider the impacts on the significant investments in areas that would be affected by the proposed project. Most of the economic benefits would be short-term and associated with construction of the transmission lines, while the negative economic impacts would be long-term, irreversible, and unmitigable.

a. Ecotourism

Many of the areas that would be most significantly affected by this proposed project – the San Pedro River and its tributaries, Sulphur Springs Valley and the Willcox Playa – are well-known ecotourism attractions. Birders, hikers, and wildlife watchers come from all over the United States and the world to enjoy this region. Birders are particularly drawn to these areas due to the amazing diversity of birds that inhabit and migrate through these ecologically significant lands. Willcox hosts an annual “Wings Over Willcox” event that focuses on the birding in the area. In 2013, it celebrated the 20th anniversary of this event, an important component of the local economy.

The FEIS fails to analyze the impact of the proposed project on ecotourism including direct, indirect, and cumulative impacts. The FEIS underestimates and fails to adequately analyze the economic role of public lands, river valleys, playas, and natural open space, plus the wildlife these support for the local communities and it ignores existing research documenting the economic importance of protected public land resources. Income from tourism is a sustainable source of income, but requires

that the resource is managed and protected. The proposed SunZia transmission line has the potential to forever damage sustainable regional resources for a questionable purpose and need.

b. Watchable wildlife

Watchable Wildlife programs play an increasing role with state wildlife agencies and land managers. As other forms of wildlife recreation continue to decline, watchable wildlife programs are more popular than ever. In Arizona, the Arizona Game and Fish Department is seeking to “Identify, assess, develop and promote watchable wildlife recreational opportunities.” In a 2006 study, the Outdoor Industry Foundation reported that all outdoor wildlife-related recreational activities generated \$730 billion annually for the United States economy and, of that, watchable wildlife generated \$43 billion annually. They reported 66 million Americans participated in wildlife viewing, which supported 466,000 jobs. Estimated economic returns included retail sales averaging \$8.8 billion, trip related expenditures of \$8.5 billion, and state and federal tax receipts of \$2.7 billion. There are some aspects of outdoor recreation not captured by these numbers as well, including visitors who come for sight-seeing, family gatherings, and for educational benefits.

A 2011 study by the National Fish and Wildlife Foundation estimated the combined value of outdoor recreation, nature conservation and historic preservation at creating more than 9.4 million jobs, generating \$107 billion in local, state, and federal tax revenues resulting in a minimum total economic impact nationally of \$1.6 trillion. The U.S. Fish and Wildlife Service contributed about \$4.2 billion in economic activity and supported over 32,000 jobs through its management of 553 National Wildlife Refuges and thousands of smaller natural areas throughout the country.

According to a 2004 study of National Wildlife Refuges, there were 36.7 million visitors who generated \$1.64 billion of economic activity in regional economies. About two-thirds of the total expenditures were generated by non-consumptive activities, meaning it was neither fishing (27 percent) nor hunting (5 percent). The authors of this study also conducted willingness-to-pay research to determine the value of these refuges beyond what it actually cost to visit. They found that visitors showed a consumer surplus of more than \$1.3 billion, with \$816 million of this amount attributed to non-consumptive visitation.

8. Issues Related to the Impact of Roads

The FEIS / RMPA greatly downplays the impacts that access roads can have on resources. Roads pose significant threats to the land and resources, including impacts on wildlife through direct and indirect mortality and habitat fragmentation. In addition to creating new roads in already disturbed areas, many of the subroutes would cross currently roadless areas. We are strongly opposed to construction of roads in these areas.

Roads inflict a horrific toll on wildlife, with an estimated one million vertebrates killed daily on America’s highways. Roads, paved or primitive, facilitate inadvertent or deliberate disruption of wildlife. According to prominent conservation biologists, habitat fragmentation is the most serious threat to biological diversity and is the primary cause of the present extinction crisis.”

Roads fragment habitat by carving otherwise large patches into smaller ones resulting in negative impacts to interior habitat. Roads also directly eliminate wildlife habitat by occupying space within the ecosystem and by altering adjacent habitat. Roadside habitats experience increased temperature extremes and solar input and pollution from exhaust, herbicides, garbage, dust, and noise. These conditions increase habitat disturbance by a minimum of 500-600 meters on either side of a small rural road and a much larger distance for highways.

Wildlife is affected directly and indirectly by roads. Mule deer frequently harassed by all-terrain vehicles (ATVs) may alter their feeding and spatial-use patterns, and produce fewer offspring the following year. Mountain lions avoid improved dirt and hard-surfaced roads and select home range areas with lower densities of these road types.

In the Southwest, roads and associated activities are the primary cause of extensive arroyo cutting during this century. Severe gully formation negatively affects soils, vegetation, and archaeological resources. Vehicular traffic directly destroys biological resources by crushing vegetation and microbotic soil crusts. The resulting soil compaction retards the recovery of vegetation. In addition, off-road vehicle (ORV) use can cause unsustainable erosion rates, exacerbate the spread of non-native invasive plants, cause user conflicts, and damage cultural sites.

Some measures to mitigate the effects of temporary and permanent roads will be incorporated, but these measures are not adequately discussed, nor are they likely to sufficiently reduce the threats to the resources. Adequate information is not provided in the FEIS to determine if the mitigation efforts that are identified will be suitable. For example, the FEIS states that “upon completion of construction activities, temporary access roads would be reclaimed according to the procedures specified in the Final POD” (FEIS Section 2.4.10.1, pg. 2-74). No further indication is provided as to what the reclamation procedures would entail, so we cannot determine if they will adequately address this threat. Similarly, the FEIS mentions that a Project Noxious Weed Management plan will be developed, but no parameters or timetables are specified.

A significant concern is natural resource damages as a result of public access to areas opened up by temporary and permanent roads constructed as part of the SunZia Project. The only mitigation measure that is provided is closing some of the roads once construction is completed and if the roads are no longer needed. However, how will these roads be monitored during the construction phase to ensure that the public is not negatively affecting resources? How long after construction will the roads be closed? The longer these roads remain open, the more potential there is for abuse by recreationists. How will roads that remain open (some of which will be gated) be monitored to ensure that the public is not overusing them, creating illegal spurs, or tampering with the closure?

Section 2.4.10.1 (FEIS, pg. 2-74) states that overland road construction methods – either overland drive and crush or overland cut and clear – may be implemented where feasible in order to reduce the severity of disturbance. However, the impacts of these methods are not discussed in the FEIS. While such methods may have less of an impact on some resources, they can have significant impact on other resources. Will the areas to be used for overland road construction be thoroughly surveyed for special status species and other important resources? If not, it is highly likely that the potential for direct mortality or injury of these species will increase. Drivers traveling cross-country may not be able to see what lies in their path as easily as they could on a maintained road. It is highly likely that

cross-country travel would increase wildlife-vehicle collisions as the animals (and their burrows, if the species resides underground) would not be as noticeable as they would on a cleared road. Related to this, what cross-country speed limit will be imposed, and how will this be enforced? Lower speeds must be required for cross-country travel. Finally, how will areas that are used for overland road construction methods be monitored and reclaimed? These methods are likely to result in more illegal road spurs used by the public as recreationists may see where other vehicles have traveled off-road and will follow suit.

Table 2-10, which identifies standard mitigation measures, states at SM 2 that “all vehicle movement outside the right-of-way would typically be restricted to designated access, contractor acquired access, or public roads” (FEIS pg. 2-89). What is meant by “typically”? When and why would vehicle movement not be restricted? What are potential impacts of movement outside of these designated access areas or roads?

Inadequate Cumulative Impact Analysis

NEPA requires the BLM to consider the impacts, including the cumulative impacts associated with the proposed SunZia project. See 40 C.F.R. § 1508.25. A cumulative impact is defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” Id. at § 1508.7. “The point [of a cumulative impacts analysis] is that a large overview should be maintained toward the magnitude of environmental effects, both of the immediately contemplated action and of future actions for which the proposed action may serve as a precedent or have a cumulatively significant impact.”

A comprehensive cumulative impacts analysis is essential to inform the proper siting, design and operation of transmission projects. The FEIS should have fully evaluated the potential cumulative impacts of all current, proposed, and reasonably foreseeable projects that would affect the lands and resources traversed by and in close proximity to the line. The FEIS is deficient in that it fails to adequately address the cumulative impacts. If the line is built, it is likely to lead to increased development around it. This would be harmful to many of the sensitive ecological and cultural areas in close proximity to the line. Without critical analysis of the need for this project and avoidance of irreversible impacts to unique ecosystems, moving forward with SunZia would set an extremely bad precedent for renewable energy development.

The FEIS fails to adequately address cumulative impacts from wind farms, utility-scale solar, natural gas, and other energy development that SunZia would facilitate. These include cumulative impacts to special status species and their habitats, cultural resources, air quality, water quality, and. Activities and designations include, but are not limited to, the Bowie Power Station, a 1,000 megawatt electric generation facility planned for southeastern Arizona near the community of Bowie in Cochise County; the BLM-proposed Afton Solar Energy Zone (BLM Solar Final PEIS); the National Renewable Energy Laboratory (NREL)-identified Western Renewable Energy Zone Qualified Resource Areas (produced by Black & Veatch under subcontract with NREL for the Western Governors Association) ; and BLM-proposed Renewable Energy Development Areas (preferred alternative) in the DEIS for the Arizona BLM’s Restoration Design Energy Project (RDEP).

The proposed Southline Transmission Project, a 345-kilovolt (kV) and 230-kV high voltage electric transmission line and substations was not considered in the DEIS cumulative impacts analysis. The proposed routes for Southline are in close proximity to SunZia's proposed alternatives between Willcox, Arizona and Deming, New Mexico. Therefore, this region in particular deserves detailed cumulative impacts analysis for both of the proposed transmission projects, to include biological (e.g. habitat fragmentation, disturbance, avian impacts, etc.) and cultural resource impacts. The cumulative impacts map in the FEIS (Figure 4-1, 4-277) only delineates the southern proposed route of Southline; however, during scoping for this project, a northern route, parallel to I-10 and much closer to SunZia's proposed routes is being evaluated. The FEIS should have taken this new information into consideration in its cumulative impacts analysis.

As the FEIS notes, a cumulative impact is the impact that results from the incremental impact of an action when added to other past, present, and reasonably foreseeable actions. Such actions can be minor on their own but, when added to the other actions, can be significant. Even though the BLM acknowledges this definition, it does not consider the collective impacts of this project as well as past, present, and future actions in the region, nor does it consider all actions that have or may occur in these areas.

The cumulative impacts analysis only considered a subset of actions that have or may occur in the area. As noted in Section 4.17.2 (FEIS pg. 4-272), the analysis only included "linear projects such as roads, transmission lines, and pipelines; and large area developments such as military installations, planned area developments, substations, conventional and fossil-fueled power plants, and renewable energy developments." It also only includes actions that are "similar in kind and effect as the proposed action, or have considerable impact to environmental resources to which the proposed action's effects will cumulatively contribute." (FEIS pg. 4-272). Smaller development projects and other actions, such as groundwater pumping, recreational use, etc., were not included. Even though some of these projects and actions may have relatively small effects on their own, collectively, all such actions can have a significant impact, especially in light of the potential effects of this project. The BLM must include a thorough analysis of all proposed projects and actions in this area.

Related to this, the BLM does not provide any consideration to other stressors, such as climate change and drought. As the U.S. Forest Service discusses in detail, "the issues of global climate change and cumulative impacts are closely related." Such stressors are reasonably foreseeable and may have very significant impacts on the resources discussed in the FEIS. By not incorporating factors such as climate change into the cumulative impacts analysis, the BLM has significantly underestimated the impacts of this project.

The BLM also significantly underestimates cumulative impacts by not including future projects that are currently speculative or for which details are unknown (FEIS pg. 4-274) and by reducing the impact timeframe to 10 years, even though the project duration is expected to be 50 years (FEIS pg. 4-275). This short timeframe may be suitable for updating plans, as the DEIS notes, but it should not be used for determining if a project with such long-reaching effects should move forward. Exclusion of analyses of projects such as the Southline Transmission Project, which is reasonably foreseeable and could have significant impacts on the resources discussed in this FEIS, is unacceptable. In order

to adequately assess cumulative impacts, the BLM must incorporate all projects that may occur throughout the duration of this project.

Direct and indirect impacts to lands with wilderness characteristics and values were not adequately evaluated in the FEIS. These include the potential of SunZia foreclosing future wilderness designations. The potential for SunZia to open up currently roadless areas (i.e. areas with wilderness characteristics) to additional road creation (both legal and illegal) and other human developments that are contrary to wilderness designation and management must be considered.

The FEIS also fails to adequately evaluate the cumulative impacts related to the introduction and spread of non-native invasive plants or potential increases in woody vegetation associated with fire suppression. The FEIS fails to evaluate the cumulative impacts and potential changes to fire frequency, fire regimes, and fire management associated with the proposed transmission line. Fire-adapted grasslands may be converted to more woody vegetation with fire exclusion and suppression associated with protecting the transmission line.

The cumulative impacts analysis with regards to biological resources is deficient and does not provide an adequate representation of possible effects. Rather than provide analysis for each species and area affected, it generalizes all effects. Some species may be more heavily affected by projects and actions occurring in the region of the project, but this analysis does not give any indication of those effects. We realize how difficult it would be to assess cumulative impacts for each of these species and the affected habitat, but the BLM must acknowledge that the information provided in its cumulative impacts analysis is of little use to fully understanding the effects to these resources.

This project, when combined with all other projects and actions occurring in the area, results in significant habitat loss, degradation, and fragmentation. As the FEIS notes, "Development of the proposed Project, in conjunction with other present and future projects, would contribute to the ongoing fragmentation and loss of natural habitats in the Southwest." (FEIS pg. 4-328).

Direct mortality to birds from collisions, etc., is also of great concern. BLM downplays collision hazards to birds from the SunZia Project, but acknowledges the substantial cumulative impact of transmission lines: BLM states at FEIS, p. 4-324: "While the proposed Project would be a small contribution to the overall collision hazard for birds in the Southwest, the cumulative effect of all transmission lines may be substantial, particularly to migratory birds."

The FEIS provides information about sources of human-caused avian mortality (FEIS pg. 4-323), although the information presented is not useful for ascertaining the cumulative impacts from this project. For example, the FEIS references a study that indicates that transmission line collisions are estimated to cause 13–17 percent of all human-caused bird deaths in North America [FEIS, pg. 323]. This statement does not give any indication of what species of birds are affected, nor the degree of impact to each species. The only useful information that can be gleaned from this is that transmission lines present a significant risk to the bird class.

Species that are already at risk from other factors and long-lived species with low reproductive rates may experience population-level threats from collisions. As noted in the FEIS, the cumulative effect of this project on such species may be quite significant. Although mitigation measures are offered to

reduce collisions, bird deaths are still expected to occur from this project. The FEIS does not adequately address such impacts other than to mention that they could occur.

Similarly, the impacts from road construction and access into new areas are not suitably addressed. As noted above, roads have very significant impacts on the environment, including increased erosion, recreation and human presence, habitat fragmentation and destruction, increased vehicle use and associated wildlife-vehicle collisions, and much more. The cumulative impacts analysis glosses over such impacts.

The FEIS anticipates that “[I]mpacts to species listed under the ESA could be cumulatively significant; however, future energy development projects would be subject to environmental review on a case-by-case basis, and each project on public land as well as projects funded or permitted by federal agencies would be required to minimize any effects to listed species through consultation under Section 7 of the ESA (BLM 2005” (FEIS pg. 4-326). However, as noted above, such actions can be minor on their own but, when added to the other actions, can be significant. Mitigation rarely eliminates effects on any resource. Even if these measures do reduce impacts, some effects, such as habitat loss, result in permanent and significant negative impacts.

In its discussion of wind energy facilities, the BLM erroneously assumes that wind facilities have a minor effect on bat species. One of the justifications provided for this is that “wind energy facilities are generally sited in open habitat lacking bat roosts” (FEIS pg. 4-327). This assumption is completely in error. Although many facilities are not located in the immediate vicinity of cave-dwelling bat roosts, they are frequently located in areas utilized by bats for foraging and migration and, therefore, can and do have significant impacts on bat species.

The cumulative impacts analysis also seems to compare potential impacts between different types of projects or other factors, rather than assess the cumulative impacts of all projects. For example, the FEIS states that “other types of future developments...are expected to result in the greatest loss of habitat in the region” (FEIS, pg. 4-328). As another example, the analysis states that “collision with buildings is the greatest man-made cause of unintentional bird mortality” (pg. 4-293). Such information is not useful unless analysis is provided about how this project adds to those impacts.

The FEIS fails to adequately analyze the growth inducing impacts of this proposed project that may have significant impacts on many resources (biological resources, air quality, green house gas emissions and many others) that would be affected by future energy projects being built and accessing the SunZia transmission lines. The growth inducing impacts of this project should have been fully considered by the BLM but were not.

III. Summary: Why the State Directors’ Proposed Action and Preferred Alternative Selection is Wrong

Under 40 CFR 1610.5-2, a valid protest letter must include concise statement explaining why the State Director’s decisions regarding the proposed action and the BLM selection of the preferred alternative is believed to be wrong.

We view as critical to our future survival a transition from fossil fuel based electricity production to an energy system that incorporates energy efficiency, conservation, and energy production from non-polluting renewable resources. A changing climate resulting from global warming and subsequent disruption of food production systems is one of the greatest challenges our nation and humanity faces. That said, we do not think that this proposed transmission line would facilitate the development of an energy mix that will address global climate change in a constructive manner. We suggest that the dollars being considered for this project could have greater impact in a project that focuses on transmission line upgrades, energy efficiency measures, and generating the electricity closer to where it will be consumed, including through both distributed generation and some larger scale projects. Trying to site this proposed transmission project in some of Arizona's most sensitive and unfragmented areas is totally unacceptable to this broad coalition of community groups.

We question the purpose and need for this project and see that all of the routes under consideration would have significant and damaging impacts on the lands, wildlife, and other important resources. Based on the information in the FEIS, our own research, and our knowledge of the impacts and the lands involved, we find that the only alternative that is acceptable is the **No Action Alternative**. We ask that the BLM select this alternative and keep intact these important lands. We further request that the BLM look at other options, including system upgrades, to meeting the purpose of this proposal.

Our principal arguments stating why the Proposed Action and the BLM Preferred Alternative are wrong are summarized below:

- 1) The BLM proposed action, alternative (Including the BLM Preferred Alternative) would unduly and unnecessarily impact ecologically sensitive areas and wildlife resources, including wildlife habitats with global significance.
- 2) The stated purpose and need for the SunZia Project is misleading and incomplete.
- 3) BLM's alternative analysis is inconsistent with the SunZia Project's stated purpose and need and does not evaluate the full range of reasonable alternatives.
- 4) The impact analyses for wild lands and conservation plans, biological resources, cultural resources and cumulative impacts are inadequate.
- 5) The cumulative impact analysis is inadequate.
- 6) The lack of analysis of growth inducing impacts of the project.

We support a timely transition from fossil fuel based electricity production to an energy system that incorporates much more energy efficiency and conservation and clean renewable energy. Global climate change is one of the greatest challenges we face as a nation and for the planet overall. That being said, we strongly question whether the proposed transmission line will facilitate the development of an energy mix that will address global climate change in a constructive manner and whether the dollars being considered for this project could not have a greater impact in a project that focuses on transmission line upgrades, energy efficiency measures, and generating the electricity closer to where it will be consumed, including through both distributed generation and some larger scale projects. Trying to site this proposed transmission project in some of Arizona's most sensitive and unfragmented areas is totally unacceptable.

We strongly protest the Resource Management Plans amendments and FEIS for the SunZia Project and we request that BLM deny the SunZia application and that BLM instead implement the No Action Alternative. The RMPs should not be amended until the issues discussed in this protest are resolved. It is, at best, premature to amend these plans until and unless this is done.

Thank you.

Sincerely,



Sandy Bahr
Chapter Director
Sierra Club – Grand Canyon (Arizona) Chapter

/s/
Matt Clark
Southwest Representative
Defenders of Wildlife

/s/
Randy Serraglio
Southwest Conservation Advocate
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/s/
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Executive Director
Coalition for Sonoran Desert Protection

/s/
Ms. Jenny Neeley
Conservation Policy Director
Sky Island Alliance

/s/
Paul Green
Executive Director
Tucson Audubon

/s/
Tricia Gerrodette
President
Huachuca Audubon Society

/s/
Norm "Mick" Meader
Co-Chair
Cascabel Working Group