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August 22, 2012
Adrian Garcia, Project Manager
Bureau of Land Management
SunZia Southwest Transmission Line Project
P.O Box 27115
Santa Fe, NM 87502-0115
Via electronic mail to NMSunZiaProject@blm.gov
Re: Comments on Proposed SunZia Transmission Project DEIS

Dear Mr. Garcia:

Defenders of Wildlife (Defenders), the Coalition for Sonoran Desert Protection, Sky Island Alliance and Tucson Audubon appreciate the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) for the proposed SunZia Southwest Transmission Line Project (SunZia).

Defenders 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.

SunZia proposes to construct two parallel high capacity 500-kilovolt (kV) transmission lines that would span between 460 and 542 miles across federal, state, and private lands between central New Mexico and central Arizona. The Bureau of Land Management (BLM) is the lead federal agency for this project, while the project applicant, SunZia Transmission, LLC is a private company.

Transforming the nation's electricity sources from polluting fossil fuels to clean renewable energy is an essential part of reducing greenhouse gas emissions and limiting the threats posed by global climate change. Defenders is committed to guiding our nation's transition to clean energy in a way that protects wildlife and habitats by ensuring renewable energy and transmission projects are built "smart from the start" so as to avoid, minimize and effectively mitigate for negative impacts to our environment, wildlife habitat and other sensitive resources.

We recognize that new transmission lines will be needed in some cases to carry renewable energy to population centers, and create improved transmission capacity and reliability. However, renewable energy and associated transmission development are not appropriate everywhere on the landscape. Thorough review under the National Environmental Policy Act of 1969 (NEPA) and state line-siting regulations and processes are essential to determining which of the many proposed projects should be permitted to go forward. Especially close scrutiny is warranted when proposed new transmission lines would impact areas of high conservation value.

When new transmission lines are proposed, they must serve a true need, and be appropriately located to avoid or minimize harm to wildlife, wildlife habitat, wilderness values, and other important natural and cultural resources. Upon review of the DEIS for SunZia, we do not believe that any of the alternative routes are located so as to sufficiently avoid or minimize impacts to sensitive wildlife habitats and resources. The numerous negative impacts of the project to areas of high conservation value outweighs the purported benefits of the project, and therefore it should not be permitted as currently conceived.

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I. Public Process Has Lacked Transparency and Effective Public Engagement

SunZia is a highly controversial project. We are concerned with the quality and nature of the public process that has been conducted by the BLM for the SunZia project to date, which has lacked transparency and effective public engagement. BLM held several public meetings in response to the controversial nature of the project.[1] However, the format of the meetings has not allowed for meaningful public discourse on important issues and questions, and as such has not been in keeping with the spirit and intent of NEPA. As an example, during the public meeting held in Tucson on July 17, 2012, numerous local stakeholders felt compelled to ask questions and voice their concerns openly regarding the purpose and need of the project for renewable energy transmission. Instead of engaging with the public and answering their questions or accepting comments in this format, BLM staff moved across the room out of range of the public questioners. Such a response does not meet NEPA's intent to provide meaningful public involvement in major environmental decision-making. Crucially, BLM's response in this case also did little to reduce public controversy and opposition to the project, but instead caused increased tension and conflict, which will likley cause further delays in the process and cause stakeholders to continue to question the project.

Defenders, along with partner organizations, anticipated that due to its highly controversial nature and potential for extensive impacts, SunZia merited a proactive, collaborative conflict resolution approach. Therefore, on May 13, 2011, we sent a letter to Secretary of Interior Salazar strongly recommending that he direct BLM to engage the U.S. Institute for Environmental Conflict Resolution (USIECR) with affected stakeholders (see attached copy of this letter). Our hope was that the USIECR would assist BLM and SunZia in identifying and resolving outstanding conflicts associated with SunZia prior to the release of the project's DEIS. Unfortunately, Secretary Salazar did not respond to our letter and did not direct BLM to engage USIECR, nor was there any other conflict-resolution process initiated. As a result, there remain numerous significant, unresolved conflicts expressed by the public surrounding SunZia, and a commensurate decrease in the confidence in the integrity of the public process. Until such a conflict resolution process is successfully undertaken, or new alternatives with significantly less conflict are identified, we will continue to advocate BLM select the "no action alternative".

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. BLM should provide additional opportunities for meaningful public engagement leading up to the Final EIS, so as to comply with the intent and purpose of NEPA. Issues and input gathered from such public engagement should be used by BLM to inform and guide its decision making process. BLM should consider engaging the USIECR or other professional mediators to ensure productive communication and increase the likelihood of resolving outstanding conflicts.

[1] "Public meetings or hearings are required when there may be substantial environmental controversy concerning the environmental effects of the proposed action [or] a substantial interest in holding the meeting" (BLM NEPA Handbook H-1790-1 § 6.9.1)

II. We Support the No Action Alternative because proposed routes would adversely impact ecologically sensitive areas and wildlife resources

Defenders is unable to support any of the DEIS action alternatives due to unacceptable impacts to sensitive wildlife habitats and wild lands; therefore, we support the "no action alternative".

In our scoping comments, submitted on June 10, 2010, we clearly stated that any proposed routes through the San Pedro River Valley or Aravaipa Canyon were unacceptable due to high levels of ecological sensitivity, and we requested that they be removed from further consideration. Not only were these areas not removed from consideration in the DEIS, but a new route not disclosed in the scoping process, located on the western side of the San Pedro River Valley, has been put forward as the BLM's "preferred alternative".

As detailed in our scoping comments, 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 area. It is an area so special and ecologically valuable that it has recently been proposed by the U.S. Fish and Wildlife Service for the establishment of a new National Wildlife Refuge and Collaborative Conservation Initiative[2] - 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 preferred alternative would run astride this new wildlife refuge, and in close proximity to the Saguaro National Park (east unit). This is not an appropriate area through which to route a major new energy corridor.

Also as detailed in our scoping comments, the greater Aravaipa-Galiuro-Santa Teresa wild land complex is similarly unsuitable for such development and resulting habitat fragmentation. According to a cumulative effects analysis recently conducted by The Nature Conservancy (TNC)[3], this wild land complex is second only to the Grand Canyon region in the Southwest in terms of its size and relative intactness. The TNC cumulative effects analysis states:

> *The take home from these analyses is that the Sunzia transmission route proposed to cross the Galiuro-Aravaipa-Santa Teresa 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.*

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[2] U.S. Fish and Wildlife Service Lower San Pedro River Collaborative Conservation Initiative Planning Update #1: http://www.fws.gov/southwest/docs/LSPRCIPlanningUpdate1.pdf

[3] Cumulative Effects Analysis for Proposed SunZia Transmission Line. Rob Marshall, Dale Turner, and Dan majka, The Nature Conservancy, June 18, 2012.

A major transmission corridor and associated access roads through this wild and remote area would not only fragment and create a new disturbance corridor in this large, unique and unbroken natural area, it could also open it up to future undesirable development proposals, and potentially preclude or discourage the active fire management crucial to maintaining ecosystem processes and healthy wildlife habitats. This is not an appropriate area through which to route a major new energy corridor.

As documented in the DEIS, the proposed SunZia line and associated infrastructure would potentially negatively impact a wide range of sensitive, threatened and endangered species and their habitats, including designated critical habitat for several species. While in some cases impacts could be avoided and minimized through project design, best management practices and mitigation measures, there are also unavoidable and cumulative impacts that are collectively unacceptable and which would be impossible to adequately mitigate for in some areas.

Importantly, the DEIS documents numerous federal, state, county and private conservation lands, and important bird areas and wildlife linkages that would be negatively impacted by the various alternatives. In addition to the host of special areas of conservation concern identified in the DEIS that would be directly or indirectly impacted, there are fourteen roadless BLM parcels in New Mexico greater than 5,000 acres containing wilderness characteristics and values that would be potentially affected by SunZia under the various proposed action alternatives. The construction of such highly visible, permanent man-made structures and access roads would significantly degrade the wilderness characteristics and values of these areas and potentially preclude them from future wilderness designation. Such impacts to public wild lands are also unacceptable and impossible to adequately mitigate for.

A new transmission line corridor and associated new or improved access roads would not only fragment currently undisturbed wildlife habitat and impair the functionality of wildlife linkages and migration corridors, it could also facilitate the introduction and spread of invasive species, cause increased erosion and sedimentation, as well as provide a new avenue for unauthorized motorized activity and associated disturbances.

The DEIS (4-424) projects that 4,500 MW of new generation capacity empowered by SunZia would result in the disturbance of approximately 40,270 acres of land. New power generation facilities are likely to be located within the vicinity of current and future substations along the line. We are concerned about the scale of cumulative impacts to the surrounding wild lands and wildlife habitats along the proposed routes and in proximity to them (see section IV for more details on wild lands of concern).

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Lands of conservation significance and ecological sensitivity should be avoided to the greatest extent possible. New transmission lines can and should be constructed along existing disturbance corridors in order to avoid intrusion into undisturbed wild lands and wildlife habitats. In addition, in some cases existing transmission lines can be upgraded, eliminating the necessity of establishing new right of way corridors and associated disturbance to wildlife and wild lands.

III. We Support the No Action Alternative because SunZia would facilitate the production and transmission of significant amounts of new fossil fuel-generated energy.

In our scoping comments, authored with partner conservation organizations and submitted to the BLM on June 10, 2010, we questioned whether SunZia would actually be primarily a line for clean renewable energy resources, as scoping materials stated it would be, or if it would instead primarily facilitate the development of new fossil fuel-generated energy. This important issue, the mix of renewable vs. fossil fuel energy that SunZia is likely to carry, has been raised repeatedly by the public, but has not been transparently addressed in the public meetings hosted by the BLM, nor do we believe it has it been accurately evaluated or disclosed in the DEIS.

The energy development forecast in the DEIS which estimates that between 81-94% of the energy SunZia would spur (and presumably carry) would be renewable appears to overestimate the mix of renewable energy likely in the foreseeable future, while fossil fuel sources of energy that are anticipated to feed into SunZia appear to be significantly underestimated. Up to one third of the 3,000 MW approved rating for a two single-circuit 500 kV AC line configuration would be occupied by electricity generated by the 1,000 MW Bowie gas-fired power plant alone. Ironically, SunZia does not intersect with and thus will not carry energy from the BLM's Afton Solar Energy Zone and associated substation near Las Cruces, New Mexico. However, SunZia does connect with the natural gas-fired power plant and Willow substation, near Bowie, Arizona, and other gas-fired power plants and substations along the I-10 corridor. Thus the purpose and need as stated by the BLM in scoping materials for this project, as well as information provided at public meetings and in the energy development forecast in the DEIS, give a false impression of the likely ratio of fossil-fuel to renewable energy development the line is likely to enable and carry.

IV. The Stated Purpose and Need for the SunZia Project is Misleading and Incomplete

The purpose and need of the SunZia project, as portrayed by BLM in both its scoping materials and in recent presentations at public meetings, is a transmission line that would be constructed to carry "primarily renewable energy sources."

An Information Quality Act request from the Winkelman and Redington Natural Resource Conservation Districts in Arizona submitted in July 2011 requested that BLM prepare a more accurate statement of purpose for the SunZia Southwest Transmission Project. In response, BLM did ultimately drop the word "primarily" from its purpose and need statement – but only as recently as April of 2012. While the word "primarily" was not used in presentations at recent public meetings held by BLM, the presentations at these meetings, given by the consultant Environmental Planning Group (EPG) hired by BLM, focused almost exclusively on the project's potential to serve renewable energy development. The words "natural gas" or "fossil fuels" were not included in the project's statement of purpose and need or in public presentations, despite the project's clear linkage to natural gas development proposals.

When the Southwestern Power Group (SWPG), the primary investor in the SunZia project, officially proposed SunZia, its presentations made clear that its driving motivation was to provide needed

transmission capacity for its own proposed 1,000-MW natural gas-fired power plant located in Bowie, Arizona (see attached Western Electricity Coordinating Council Report on the proposed SunZia Southwest Transmission Project Regional Planning Project Report).[4] Although the original SWPG proposal mentioned providing transmission capacity for renewable energy, the fundamental reason for proposing the project was to permit transmission of power generated at the Bowie power plant both eastward to El Paso and westward to Phoenix and California. The Willow substation, portrayed throughout the scoping period as an integral part of the SunZia Project, is already a permitted part of the Bowie power plant. In addition, proposed alternative routes connect with existing substations in southwestern New Mexico and SunZia would potentially supply transmission capacity for several natural gas plants near these substations, thus enabling their future expansion. No proposed route alternatives would 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 SunZia is proposed in close proximity (20-30 miles) to this area where future industrial-scale solar energy plants will be incentivized on BLM lands. This supports the view that it is designed first and foremost to provide new transmission capacity for natural gas development, rather than renewable energy.
The DEIS is similarly biased towards emphasizing renewable energy development potential, and downplays the fossil fuel generated sources of energy that the line appears to be routed to serve. For instance, the DEIS (1-7) states: "The Project is needed to increase available transmission capacity in an electrical grid that is currently insufficient to support the development, access, and transport of additional energy-generating resources, including renewable energy, in New Mexico and Arizona." While the phrase "additional energy-generating resources" is general enough to include any type of energy source, renewable energy is called out specifically, while anticipated fossil-fuel sources are not. To be more transparent, this statement should instead read: "The Project is needed to increase available transmission capacity in an electrical grid that is currently insufficient to support the development, access, and transport of additional fossil fuel and renewable energy generating resources in New Mexico and Arizona." The DEIS goes on to say, "The Project would be open to all interconnection requests; however, it is the intent of the Applicant to provide infrastructure to increase transmission capacity in areas of potential renewable energy generation." This same purpose is stated later in the DEIS (4-268; 4.17.33): "The Applicant's purpose for the proposed Project is to provide access to renewable energy resources in the Southwest and to increase general reliability". The DEIS does not, however, reveal the intent of the applicant to provide access to, and increased transmission capacity for, natural gas generation. Again, the purpose in these statements is incomplete and thus misleading.

Furthermore, it is unclear if and when renewable energy would become a significant contributor to the mix of the power SunZia intends to deliver, and if and when the proposed segment between SunZia's eastern terminus in New Mexico and Bowie, Arizona would be built to facilitate and carry wind power. Natural gas, on the other hand, is likely to come on line quickly because of its abundance and existing infrastructure (the El Paso natural gas pipeline, whose route SunZia roughly parallels) in the region, and could readily out-compete renewable energy for capacity on the line. We are not aware of any regulations or agreements that would prevent this from occurring.

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[4] Available online at: http://www.wecc.biz/committees/StandingCommittees/PCC/TSS/Shared%20Documents/Projects%20Undergoing%20Regional%20Planning%20Rating%20Review/SunZia%20Southwest%20Transmission%20Project/SunZiaRPPR_Final_051507.pdf

Lastly, there is a great deal of uncertainty whether any western market would be interested in, or even be able to buy the renewable power SunZia proposes to deliver. This fundamental aspect of the project's purpose is not examined in the DEIS – but rather generally and ambiguously referred to as "western power markets and load centers in the Desert Southwest". Page 1 of the DEIS states that "The Project would assist load-serving utilities in meeting the requirements to address energy delivery obligations to meet state renewable portfolio standards (RPS)". We have not been able to confirm that the power SunZia proposes to deliver is needed by Arizona or California to meet their current RPS goals. In fact, most California utilities have reported that they are already oversubscribed for renewable power generation[5].

Recommendations: BLM must revise the purpose and need statement for the SunZia project in the Final EIS to include SunZia's purpose to provide access to, and increased transmission capacity for, natural gas generation, including the proposed natural gas powered plant near Bowie, Arizona. The BLM must reveal to the public in the Final EIS that SunZia will not be required at any time to build the segment from central New Mexico to the Willow Substation near Bowie, Arizona that would deliver wind and solar power generated in New Mexico. The BLM must also reveal to the public in the Final EIS that the project does not have an established market to deliver renewable energy to, and must assess the willingness and ability for utilities or other "western markets" to purchase renewable energy from SunZia to meet state RPS goals (as stated in the project's purpose and need).

V. BLM's Alternatives Analysis is Not Consistent with the SunZia Project's Stated Purpose and Need and Does Not Evaluate the Full Range of Reasonable Alternatives

The deficiencies with BLM's stated purpose and need for the SunZia project render the agency's required alternatives analysis inadequate. *See* 42 U.S.C. §§ 4332(C)(iii),(E). In order to conduct a meaningful alternatives analysis, an agency must accurately identify the underlying purpose and need to which the agency is responding. *See* 40 C.F.R. § 1502.13. "The stated goal of a project necessarily dictates the range of 'reasonable' alternatives and an agency cannot define its objectives in unreasonably narrow terms." *City of Carmel-by-the-Sea v. DOT*, 123 F.3d 1142, 1155 (9th Cir. 1997). Consequently, "[l]ogic and law dictate that every time an agency prepares an environmental impact statement, it must answer three questions in order. First, what is the purpose of the proposed project (major federal action)? Second, given that purpose, what are the reasonable alternatives to the project? And third, to what extent should the agency explore each particular reasonable alternative?" *Simmons v. U.S. Army Corps of Eng'rs*, 120 F.3d 664, 668 (7th Cir. 1997).

The alternatives analysis is "the heart" of the environmental impact statement, and is intended to provide a "clear basis for choice among options by the decision maker and the public." 40 C.F.R. § 1502.14; *see also Citizens for a Better Henderson v. Hodel*, 768 F.2d 1051, 1057 (9th Cir. 1985) (EIS must consider "every reasonable alternative"). An agency's failure to consider a reasonable alternative is thus fatal to its NEPA analysis of a proposed action. *See id. at 1057* ("The existence of a viable but unexamined alternative renders an environmental impact statement inadequate."); Forty Most Asked

[5] See, for example: http://www.renewablesbiz.com/article/12/05/pge-says-it-will-meet-california-s-renewable-energy-goals

Questions Concerning CEQ's NEPA Regulations, 48 Fed. Reg. 18,026 (March 16, 1981) ("In determining the scope of alternatives to be considered, the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out the particular alternative. 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.").

The alternatives analysis contained in the DEIS does not accurately reflect SunZia's stated purpose and need and does not evaluate a sufficient range of alternatives. All of the proposed alternative routes go through Bowie, Arizona, despite the fact that delivering natural gas-generated energy from the proposed Bowie power plant is not expressly stated as a primary purpose and need of the proposed project. If the purpose of the project is to deliver wind energy from central New Mexico to markets in Arizona and further west, it is unclear why all of the route alternatives evaluated in the DEIS go so far south – all through Bowie – only to go back north again. There are other potential viable routes connecting central New Mexico to central Arizona – for instance, along the US 60 or US 70 transportation corridors – that were not evaluated in the DEIS. The related High Plains Express transmission line project feasibility study identifies the US 60 corridor as a feasible route between central New Mexico and central Arizona in the Phase 2 configuration of this proposed high voltage line. Thus, BLM has failed to consider a reasonable range of alternatives that could potentially serve the stated purpose and need of the SunZia project, in violation of NEPA.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. BLM must fully disclose the full purpose of and need for the proposed project, to include (if applicable) delivering natural gas generated electricity from plants including the 1,000 MW Bowie plant owned by SunZia's primary investor SWPG. The Final EIS must also evaluate whether utilities in western markets have the ability or intention to purchase the power SunZia would deliver. BLM should re-evaluate if this aspect of the stated need for the project is legitimate. Unless the BLM includes delivering power from the Bowie natural gas fired power plant as a specific purpose and need of the project, BLM must consider a wider range of reasonable alternatives, including feasible alternatives that do not go through Bowie, Arizona.

VI. Impacts to Wildlife of Conservation Concern

The various alternatives in the DEIS would traverse and potentially negatively impact designated critical habitat for the Southwestern willow flycatcher, Rio Grande silvery minnow, Mexican spotted owl, and the Gila chub. The project proponent should consult closely with the USFWS to determine site-specific mitigation measures for these species.

In section 4.6.3.1, the DEIS states: "significant impact on biological resources could result if any of the following were to occur from construction or operation of the proposed action." 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 should consult with the USFWS and the AZGFD 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 be 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, 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.

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. While the DEIS identifies the potential for construction related activity to cause direct mortality, there is no discussion of impacts related to fragmentation caused by road construction.

Recommendation: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS must analyze the impacts on the Tucson shovel-nosed snake of road construction and associated habitat fragmentation resulting from the SunZia project. In addition, the Final EIS must adequately analyze 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.

Cactus ferruginous pygmy owl (*Glaucidium brasilianum cactorum*): This species was formerly listed as endangered and is still extremely imperiled in the U.S. The pygmy owl is one of Arizona's rarest species, and its conservation was the impetus for the Sonoran Desert Conservation Plan. While the

species is not federally listed, it is a species of great concern to the conservation community, a BLM special status species, and an Arizona Wildlife Species of Special Concern. It is particularly imperiled in the northern portion of its range, which is the area overlapping southern Arizona, and is threatened largely by riparian area habitat loss and the spread of invasive species such as buffelgrass, which cause unnaturally hot fires to burn that can destroy saguaros, one of the primary elements used by pygmy owls for nesting. Destruction of saguaros, especially those containing suitable nesting cavities, should be avoided.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Avoidance, salvage, and relocation of saguaros of transplantable size is a good first step towards reducing impacts to pygmy owl habitat. Avoidance of mesquite bosque habitat is also crucial. SunZia and BLM should consult with the USFWS and the AZGFD regarding site-specific conservation measures for this species. In addition, the Final EIS must adequately analyze potential cumulative effects upon the owl of energy development that would be enabled by the construction of SunZia.

Lesser Long-nosed Bat *(Leptonycteris curasoae yerbabuenae)*: The endangered lesser long-nosed bat is one of the three North American nectar-feeding bat species that undergoes long distance migrations. To survive these migrations, the bats must time their travel to coincide with the flowering or fruiting activity of their 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 DEIS, two know roosts are within 4 miles of the project centerline. There is also the possibility that additional, undocumented roosts could also 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 (USFWS 1994), 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.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS regarding conservation measures for this endangered species. For agave and saguaro that would need to be removed, not only should these plants be transplanted nearby where they have been removed, but additional plants should be planted for mitigation (and to account for possible unsuccessful transplants) at a 3:1 ratio. In addition, the Final EIS must adequately analyze potential cumulative effects of energy development that would be enabled by the construction of SunZia.

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.

Recommendation: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should 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.

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.

Recommendation: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and 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.

Mexican spotted owl (*Strix occidentalis lucida*): This species is listed as threatened. Threats include loss to old growth forests, its preferred habitat, disturbance and 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 DEIS 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 DEIS indicates no mitigation measures for this species.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and 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 the Mexican spotted owl, mitigation measures should be identified and implemented.

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 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.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the NMGFD to determine what conservation measures may be appropriate for this species.

Sandhill cranes (*Grus canadensis*): Sandhill cranes are primarily birds of open fresh water 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.[6] 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.[7]

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Care should be taken in project planning to analyze and avoid migratory flyways and important habitats for this species in order to prevent collisions and population-level impacts. In particular, areas of concern for Sandhill cranes in the project area is the Rio Grande River corridor, as well as 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. Both of these areas are of high ecological and economic importance. The USFWS estimates 174 million birds die each year as a result of colliding with transmission lines. We recommend 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. Although a limited number 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. We encourage SunZia to develop an Avian Protection Plan (APP) and follow best practices laid out by USFWS,[8] NMDGF,[9] and the Avian Power Line Interaction Committee (APLIC).[10]

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[6] International Crane Foundation species account (see: http://www.savingcranes.org/sandhill-crane.html)
[7] Arizona Game and Fish Department species account (see: http://www.azgfd.gov/h_f/game_crane.shtml)
[8] APLIC and FWS 2005, Avian Protection Plan (APP) Guidelines.
[9] New Mexico Department of Game and Fish 2003, "Power line Project Guidelines" (http://wildlife.state.nm.us/conservation/habitat_handbook/documents/PowerlineProjectGuidelines.pdf).
[10] APLIC 2006.

S**now 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.[11]

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Care should be taken in project planning to analyze and avoid migratory flyways and important habitats for this species in order to prevent collisions and population-level impacts. Bird diverters should be implemented on line segments that intersect flyways, so as to make the wires more visible and thus to reduce direct mortality due to collisions. We recommend 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 confer with the USFWS to determine and implement best practices for reducing transmission line and guy wire collisions with snow geese and all bird species.

Mexican gray wolf (*Canis lupus baileyi*): 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 2011 there were only 58. While there are not currently wolves occupying the SunZia project area, the area does contain suitable habitat for this species. Much of the 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 the recovery plan now underway may identify as a recovery or corridor area. 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.

The DEIS (4-71) states: "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." We find no basis for this assumption, and in fact, Mexican wolves have ranged across various portions of the the SunZia project planning area in search of new territory. Such occurrences will likely occur more often as the population grows and disperses. The 5-Year Review of the Mexican gray wolf recovery program found that movement distances for lone wolves averaged 87 ± 10 km (54 ± 6 mi).[12] In addition, newly introduced Mexican wolves in northern Sonora, Mexico, could also range into the SunZia project planning area.

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[11] Audubon species account (see: http://www.audubon.org/species/snogoo)

[12] See: http://www.fws.gov/southwest/es/mexicanwolf/pdf/MW5YRTechnicalComponent20051231Final.pdf

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS must fully analyze the potential effects of creating new vehicular access into occupied and potential Mexican wolf habitat. SunZia and BLM should consult with the USFWS regarding conservation measures for this species, and with an eye to policy changes anticipated in the new recovery plan and associated rulemaking – as the recovery plan will likely be finalized prior to the construction of SunZia.

Ocelot (*Leopardus pardalis*)*:* A new recovery plan is being developed by the USFWS for this species. According to the draft recovery plan for the ocelot, little is known about the abundance and distribution of the Sonoran population of ocelot.[13] Despite the fact that ocelots are notoriously difficult to detect, particularly in low densities such as they probably exist in their northern range, multiple verified ocelot sightings in southeastern Arizona have occurred in the past three years.

The DEIS (4-71) 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." Given that little is known about the ocelot's abundance and distribution in southeastern Arizona, 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.[14] 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.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS and AZGFD 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.

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

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[13] See: http://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/Ocelot/Draft_Ocelot_Recovery_Plan-First_Revision.pdf

[14] Lopez Gonzalez, C., D.E. Brown and J.P. Gall0-Reynoso, 2003. The ocelot Leopardus pardalis In north-western Mexico: ecology, distribution and conservation status. Oryx Vol 37 No 3 July 2003.

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 Final EIS must adequately analyze 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 analyzed.

The DEIS (4-73) 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." 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 there or being reintroduced there, which could have significant negative impacts on their ability to be recovered.

Recommendation: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS regarding conservation measures for this species, and conduct mitigation consistent with the current recovery plan. The Final EIS must adequately analyze direct, indirect and cumulative effects of the selected SunZia route to the Aplomado falcon. Specifically, BLM must analyze the impacts of SunZia, and the foreseeable energy development it would enable, upon Aplomado falcon habitat suitability, recovery and recovery efforts.

Jaguar (*Panthera onca)*: "Jaguars in the United States are likely dispersing males from breeding populations in northern Mexico. Movement corridors are important to maintain; however, human developments may block access to corridors or fragment contiguous habitats needed to sustain a home range. Fences and highways may be particularly damaging for movement corridors."[15] The United States portion of the jaguar's range coincides with the proposed transmission route in Cochise, Pima, Santa Cruz, and Hidalgo counties,[16] making it essential that SunZia planning limit habitat fragmentation and preserve movement corridors for this species. Areas with moderate to

[15] Fish and Wildlife Service (2012). ECOS Species Profile for jaguar (Panthera onca). http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A040. Accessed May 29, 2012.
[16] Hatten et al. 2003. Characterizing and Mapping Potential Jaguar Habitat in Arizona. Arizona Game and Fish Department Technical Report 203, Nongame and Endangered Wildlife Program. (see: http://www.azgfd.gov/pdfs/w_c/jaguar/characterizing_mapping.pdf)

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 DEIS states: "While the potential for jaguars occurring within the Project area is very low, disturbance associated with construction could result in temporary avoidance of those areas by any jaguars using the area." We find no basis for the assumption that the potential for jaguars occurring within the project area is "very low". Comprehensive field surveys to detect and monitor this elusive 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 DEIS should analyze 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.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS must analyze the impacts SunZia 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. SunZia and BLM should consult with the USFWS and AZGFD 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.

Sonoran desert tortoise (*Gopherus agassizii*): This ESA candidate species is found in the Sonoran desert of Arizona. 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, ravens use transmission lines as a means to scout out and prey upon young tortoises. Therefore, mitigation measures that are specific to habitat fragmentation, direct mortality from collisions with vehicles, and raven predation should be identified, developed and implemented.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS should more adequately analyze impacts from direct mortality due to construction and vehicular traffic, as well as longer-term impacts from habitat fragmentation and the potential introduction of non-native species. SunZia and BLM should consult with the USFWS and AZGFD regarding conservation measures for this species.

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 since our 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.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. BLM and SunZia 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,[17] NMDGF,[18] and the Avian Power Line Interaction Committee (APLIC).[19]

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 at various times of the year, and often return to specific fawning grounds, they are a landscape-connectivity dependent species.[20,21] 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.[22] 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 all the more important if pronghorn populations are to recover.

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[17] APLIC and FWS 2005, Avian Protection Plan (APP) Guidelines.
[18] New Mexico Department of Game and Fish 2003, "Power line Project Guidelines" (http://wildlife.state.nm.us/conservation/habitat_handbook/documents/PowerlineProjectGuidelines.pdf).
[19] APLIC 2006.
[20] Friederici, P. editor. 2003. Ecological Restoration of Southwestern Ponderosa pine Forests. Island Press, Washington, D.C., USA, 651 pp.
[21] van Riper and Ockenfels 1998 Yoakum, J.D. 2002. An Assessment of Pronghorn Populations and Habitat Status for Anderson Mesa, Arizona: 2001-2002. Prepared for the Arizona Wildlife Federation. 130 pp.
[22] Arizona Game and Fish Department. 2001. Wildlife 2006: The Arizona Game and Fish Department's Wildlife Management Program Strategic Plan for the Years 2001-2006.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS should adequately assess SunZia's effects on pronghorn. The clearance of shrubs in shrub-invaded grasslands associated with this project could actually benefit pronghorn in some areas. The Final EIS should also more comprehensively assess the potential impacts upon pronghorn and pronghorn habitat quality of road construction (i.e. habitat fragmentation), vehicular traffic and associated disturbance.

Chihuahua scurfpea *(Pediomelum pentaphyllum)*: This very rare plant is currently being considered for listing under the Endangered Species Act. Its United States habitat occurs largely on BLM and New Mexico state lands, with several hundred known individuals of the species in New Mexico and a few dozen in Arizona. Listed as endangered by the state of New Mexico, much about the biology of this species is unknown but it is critical to avoid direct mortality and habitat impacts.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the NMGFD regarding conservation measures for this species.

Rare Plants: SunZia should incorporate a detailed plan for avoiding rare plants in the Final EIS. Micro-siting of the actual construction zone within the analysis corridor should take account of available data-bases and rigorous on-the-ground surveys. All surface disturbing infrastructure and operations should be located and conducted with care to avoid adverse impacts to rare plant habitat. This includes towers, access routes, and related facilities.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. SunZia and BLM should consult with the USFWS, AZGFD, and NMGFD regarding conservation measures and site-specific mitigation for rare plant species.

VII. Impact Analysis for Wild Lands & Conservation Plans is Inadequate

The alternatives evaluated in the DEIS would have varying degrees of impact to a long list of wild lands and conservation areas in New Mexico and Arizona. The DEIS identifies many, but not all, of these special areas. For example, the DEIS fails to adequately evaluate the project's potential impacts upon Pima County's Sonoran Desert Conservation Plan Conservation Lands System.

While we appreciate the DEIS inventory of wild lands and conservation investments that would be impacted by SunZia, the analysis is inaccurate or incomplete with regard to the impacts will occur to these areas. We also appreciate that the project proponent and BLM seek to minimize such impacts; however, we are unconvinced that SunZia itself, as well as the future energy development projects it

will enable into the future in the surrounding landscapes, will not compromise the integrity of the following vitally important conservation investments, conservation plans and intact natural landscapes:

- Pima County's Sonoran Desert Conservation Plan Conservation Lands System
- San Pedro River Valley and migration corridor (proposed National Wildlife Refuge and numerous private land conservation easements)
- Aravaipa Canyon / Galiuro Mountains Complex (USFS, State, Private)
- Saguaro National Park East (NPS)
- Las Cienegas National Conservation Area (BLM)
- Pima County preserves (County, State)
- AZGFD-identified wildlife linkages
- 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

Inventory of, and protection for, lands with wilderness characteristics

The Federal Land Policy and Management Act of 1976 (FLPMA) requires BLM to inventory and consider lands with wilderness characteristics during the land use planning process. See *Oregon Natural Desert Ass'n v. BLM*, 531 F.3d 1114, 1119 (9th Cir. 2008). 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." The Mimbres RMP (covering Luna, Grant and Hidalgo Counties in New Mexico), which is traversed by the proposed routes, is over 20 years old and an RMP revision has not been initiated for the area. The Socorro Resource Management Plan covers extensive acreage in the Quebradas wildlands complex east of Socorro, New Mexico, across which various alternative routes are proposed.

BLM should protect lands with wilderness characteristics, including Citizens' Proposed Wilderness (CPW) areas, and Wilderness Study Areas (WSA) from development because of the important resources and values found there. CPW lands have been inventoried by various citizens groups, conservationists, and agencies and have been found to have "wilderness characteristics," including naturalness, solitude, and the opportunity for primitive recreation. These lands also provide important wildlife habitat, cultural and scientific resources, invaluable ecosystem services including clean air and water, important economic benefits, and many other resources and values. The sensitive nature of these lands and their resources and values makes transmission development inappropriate there.

Furthermore, 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.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Pursuant to FLPMA and IM 2011-154 and Manuals 6310 and 6320, BLM must update its inventory of lands with wilderness characteristics in areas potentially affected by the proposed SunZia corridor. Wilderness designation is an important tool which provides a high degree of protection to wildlife and wildlife habitats. Because the loss of wilderness characteristics, including those which are human-focused such as views, may disqualifty a proposed area from being designated as wilderness, with the loss of those habitat protections, BLM and SunZia should avoid development in or in proximity to all lands with wilderness characteristics, including CPW areas.

a. New Mexico

Citizens' Proposed Wilderness Areas: BLM should protect all CPW areas from development, as described above. Even if a proposed corridor would follow the boundary of a CPW unit and would be outside of the unit itself, BLM should consider how such a tall, man-made structure would degrade wilderness characteristics and values. While we understand that the SunZia study corridor is one mile wide, and that the actual ROW width will be between 400-1,000 feet, using Geographic Information System (GIS) analysis, we have calculated the acreage of overlap between the one mile SunZia study corridor and CPW areas as follows:

Table 1. Units with a * are contiguous roadless lands with designated WSAs.

CPW Area Name	Acres overlap with SunZia corridor
Sierra de la Cruz	5,179
*Stallion	2,982
Padilla Gonzales	2,674
*Veranito	1,155
Cibola Canyon	1,848
Chupadera Wilderness Additions	3,033
Massacre Peak	641
* Sierra de las Uvas	380
Goodsight Mountains	3,669
Penasco Canyon	3,627
Magdalena Mountains Units	3,005
Nutt Mountain	2,311
Goodsight Mountains	3,669
Lordsburg Playas	4,161

Lordsburg Playas CPW

An example of a major conflict that has yet to be addressed is where the proposed link B150a would bisect the Lordsburg Playas citizens' proposed wilderness area. A major powerline such as SunZia through the middle of this area would not only negatively impact the wilderness characteristics and ecological values found within this unit, but bifurcation of this unit could eliminate the viability of this unique area for future wilderness designation. Bifurcation of numerous other CPW units by various proposed SunZia route alternatives could result in a similar disqualification from future wilderness designation.

The Citizens' New Mexico BLM Wilderness Inventory states: "The Lordsburg Playas are a series of three lakebeds that are dry for much of the year, usually containing water only after late summer and

fall rains. Playas are a landform unique to the basin and range formations of the Southwest, yet no representation of this landform has been included or is recommended for inclusion in the Wilderness system by BLM. The vegetation of the area is unique because of the occasional flooding, soil chemistry, and soil accumulation. The BLM has designated part of this unit as a Research Natural Area to protect the Griffith's saltbush (*Atriplex griffithsii*) a plant known to exist in only three places in the world; two in New Mexico and one in Arizona. In addition, the playas are also an important stopover for shorebirds, sandhill cranes, and ducks."

The vast development-free Lordsburg Playas roadless area as seen from the Peloncillo Mountains.

Quebradas CPWs

Proposed links E101, E133, E90, and A111 would cut across or run directly adjacent to numerous CPW units in the Quebradas wild land complex east of Socorro (see Table 1). The Citizens' New Mexico BLM Wilderness Inventory states: "The Quebradas Complex is an area of unique landforms and rich archaeological history…This complex of wildlands is at the crossroads of the New Mexico landscape. Geographically, this is the northernmost distribution of Chihuahuan Desert shrub and cactus communities. This is also a transitional area where coniferous woodland covers a good portion of the landscape… This transition zone includes areas where pinyon pine, juniper, mountain mahogany, and other more mountainous plants are found along with desert species. The area is also habitat for two special-status plant species: *Dalea scariosa* and *Amsonia fugatei*. The relatively lush arroyos in the western part of the complex also provide corridors through which wildlife can travel

from desert areas east of Socorro to water along the Rio Grande. The Cibola Canyon, Sierra de las Cruz, and Veranito units also provide a biotic linkage to Sevilleta NWR to the north. The Loma de las Cañas unit itself contains seeps and springs that provide important water in a desert environment. The presence of mule deer, the proximity to the Rio Grande, and the abundance of canyons make this prime mountain lion country. Jackrabbits, numerous other small mammals, and quail provide a prey base for the many raptors, coyotes, and gray and kit fox that inhabit the area. Additional mammals here include bats and rock squirrels. Many birds have been observed here. The list includes raven, turkey vulture, great-horned owl, Swainson's hawk, red-tailed hawk, Cooper's hawk, prairie falcon, kestrel, hummingbird, dove, quail, red-shafted northern flicker, Western meadowlark, fox sparrow, western wood peewee, Virginia warbler, and other songbirds. The grassland areas are also historic habitat for Aplomado falcons."

The landscape of the Sierra de la Cruz roadless area in the Quebradas glows red at sunset.

Magdalena Mountains and Chupadera Wilderness Addition CPWs

Proposed links E211, A160 and A161b would cross or run directly adjacent to CWP units in the Magdalena and Chupadera Mountains complex. The Citizens' New Mexico BLM Wilderness Inventory states: "Two units in the complex are made up of BLM lands and adjacent Forest Service lands that are also suitable for wilderness designation. The Chupadera Wilderness addition is to the southeast of the Magdalena Mountains and is contiguous with the existing Chupadera Wilderness in the Bosque del Apache National Wildlife Refuge. The BLM parcels in the [Chupadera and Magdalena] range[s] consist of rolling volcanic hills, isolated mesas, and foothills dotted with pinyon

pine, juniper, and oak, with significant canyons leading to the heart of the range…the Chupadera Wilderness Addition provides an important biotic linkage between the Rio Grande and the Magdalena Mountains. Animals likely use the canyons in the unit as corridors for traveling from the mountains to the river." The proposed link A160 would cross over Walnut Creek at the location of a very scenic and popular spot along a major access road. Much of the Walnut Canyon Special Management Area (SMA) is largely contained within the Chupadera Mountains Wilderness Addition. Walnut Canyon SMA contains habitat that supports a variety of species, including golden eagles, prairie falcons, and great horned owls.

Steep-walled canyons and high juniper-studded mesas in the Chupadera Wilderness Addition.

Wilderness Study Areas: Wilderness Study Areas (WSAs) are legally protected from development, including transmission line development. *See* 43 U.S.C. § 1782(c). The SunZia study corridor is in close proximity to the following WSAs: Veranito (directly adjacent to southern boundary), Stallion (1.72 miles from southern boundary), Presilla (2.45 miles from northern boundary), Sierra de las Canas (approximately 3 miles from northern and southern boundaries), and Devil's Backbone (1.77 miles from eastern boundary). The DEIS quantifies the percentage of these WSAs where SunZia would be visible – ranging from 15% of the Presilla WSA to as much as 70% of the Veranito WSA. Although the DEIS characterizes SunZia's potential impacts to these areas as "indirect," SunZia's impacts to the wilderness character of these WSAs would be direct, negative and lasting.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. BLM must more accurately and completely characterize the direct nature of impacts to wilderness characteristics and values in designated Wilderness Study Areas and CPW areas. As noted above, because wilderness designation protects wildlife and habitat, Wilderness Study Areas and CPW areas should be avoided. Links that cross CPW units or are very near WSAs should be dropped from further consideration so as to avoid impairment to wildlife. The fragmentation of roadless lands via road construction should be avoided, so as to maintain wildlife habitat integrity and security.

b. Arizona

Sulphur Springs Valley: Sulphur Springs Valley is an internationally recognized destination for birding ecotourism particularly centered around raptors. The valley hosts the largest concentration of wintering hawks in the United States, providing winter habitat for 14 species of raptors, including bald and golden eagles, Harris's, ferruginous, and rough-legged hawks.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Sulphur Springs Valley is a sensitive area for avifauna that should be avoided. However, if selected, this link would require careful planning to avoid key bird habitats. Bird diverters should be implemented on line segments that intersect flyways or ridgelines, so as to make the wires more visible and thus to avoid direct mortality due to collisions.

Designated Wilderness

Peloncillo Mountains Wilderness Area: According to BLM, this wilderness area "lies within the rugged Peloncillo Range, which stretches from Mexico to the Gila River…**Desert bighorn sheep** have been recently reintroduced to the region and share their home with peregrine falcons and four other sensitive animal species. Vegetation ranges from desert shrub grasslands in the surrounding flatlands to oak juniper woodlands in the higher reaches." The Peloncillo mountain chain forms a vital north/south wildlife linkage. While this linkage is impaired by I-10 and railroads that are routed through Steins Pass at the Arizona/New Mexico border, an additional east/west disturbance corridor would only further compromise the integrity of this important wildlife linkage. Instead of directly following the existing disturbance corridor of I-10 and the railroad at Stein's pass, proposed link B150a would be located approximately 5 miles north of the existing transportation corridor, impacting currently undisturbed wild lands, and passing within 0.5 miles of the southern boundary of the Peloncillo Mountains wilderness area. This would significantly impact the naturalness and viewshed of this BLM designated wilderness, particularly from the southern portion of the unit. This is an inappropriate location for a major new energy corridor. Links B160a and B160b would run even further north through undeveloped terrain, although they would be located much further away from the designated wilderness area. This route would also potentially allow the avoidance of the Lordsburg Playa.

Agave in bloom, on a ridge in the Peloncillo Mountains. These mountains contain a BLM-designated Area of Critical Environmental Concern and a designated wilderness area.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The proposed B150a link should be located much closer to, and parallel with Interstate 10 and the railroad to avoid impacts to the designated wilderness area and wild lands that form an important wildlife linkage. If for some reason link B150a cannot be located coincident to these transportation corridors, Links B160a/B160b would be preferable so as to avoid bifurcating Lordsburg Playa and close proximity to the Peloncillo Mountains wilderness area.

Citizens' Proposed Wilderness

Pinaleño Mountains Proposed Wilderness: The Pinaleño Mountains are a classic sky island mountain range that traverses five ecological communities, and according to the Nature Conservancy contains the highest diversity of habitats of any mountain range in North America. Link B153a would traverse the edge of this proposed wilderness on its eastern flanks, and would significantly detract from the naturalness of the area.

Aravaipa Canyon Wilderness and Galiuro Proposed Wilderness Additions: As noted earlier in our comments, Aravaipa Canyon and the Galiuro Mountains are at the heart of one of the wildest and most intact wilderness complexes in the Southwestern United States. Adjacent to the two

designated wilderness areas are contiguous roadless public lands that have been identified by the Arizona Wilderness Coalition's Citizens' wilderness inventory as suitable for wilderness designation. Proposed link C170 would be routed within less than one mile of both of the proposed wilderness additions.

According to The Nature Conservancy, "The Galiuro-Aravaipa-Santa Teresa area encompasses over 100,000 acres of intact, high value wildlife habitat. The area maintains the full complement of wildlife from large mammals (mountain lion, black bear, bighorn sheep, mule deer, white-tailed deer), to highly limited species such as Gould's turkey and the threatened Mexican spotted owl. The Aravaipa area, alone, includes over 500 species of plants and birds, 45 mammals, and 67 amphibians and reptiles. The streams on the Muleshoe Ranch and Aravaipa Canyon are the best refugia remaining for the states' imperiled native fish species. The abundance of the area's bighorn sheep population has enabled the Game and Fish Department to transplant." [23] A new development corridor would be detrimental to the security and integrity of outstanding wildlife habitat in this wild land complex.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. Proposed links Link B153a and C170 should be dropped from further consideration due to high levels of impact to public lands with wilderness characteristics and ecological values.

Sonoran Desert Conservation Plan

This section was contributed by the Coalition for Sonoran Desert Protection. Defenders is a long-standing member of the Coalition, which works to create a community where ecosystem health is protected, nature and healthy wild animal populations have value, and visitors, children and future generations can all drink clean water, breathe clean air, and find wild places to roam.

Pima County's Sonoran Desert Conservation Plan (SDCP) is a ground-breaking effort to conserve the most ecologically valuable lands and resources across the region, while guiding growth into more appropriate areas. The SDCP addresses several elements of resource conservation, including cultural preservation, open space conservation, protection of parks and natural reserves, and ranch conservation, and ecological conservation.

The biological goal of the SDCP is "to ensure the long-term survival of the full spectrum of plants and animals that are indigenous to Pima County through maintaining or improving the ecosystem structures and functions necessary for their survival." While the DEIS does acknowledge the SDCP, the only major component of the SDCP analytically evaluated in the DEIS are impacts to "priority vulnerable species."

[23] See: Cumulative Effects Analysis for Proposed SunZia Transmission Line. Rob Marshall, Dale Turner, and Dan majka, The Nature Conservancy, June 18, 2012.

On page 3-181, the DEIS states:

"Unincorporated areas of Pima County are managed under the SDCP, which includes a science-based conservation plan, a comprehensive land use plan, and a multiple species conservation plan. The SDCP gives "high priority to preserving and protecting (Pima County's) most important natural resources." Goals and objectives for the biological element of the SDCP include the following:

- *"Promote long-term viability for species, environments, and biotic communities that have special significance to people in this region, because of their aesthetic or cultural values, regional uniqueness, or economic significance" (Pima County 2010)"*

While the DEIS acknowledges the existence of the SDCP, it fails to evaluate SunZia's impacts to important elements of this regional conservation planning effort. One key component of the SDCP that deserves further evaluation in the Final EIS is the impact on the Maeveen Marie Behan Conservation Lands System (CLS).

Conservation Lands System (CLS)

The CLS was constructed with participation and oversight by the SDCP Science Technical Advisory Team and according to the most current tenets of conservation biology and biological reserve design. The CLS emphasizes retaining areas that contain large populations of priority vulnerable species; providing for the adjacency and proximity of habitat blocks; preserving the contiguity of habitat at the landscape level; and retaining the connectivity of reserves with functional corridors. Through the application of these tenets, the CLS retains the diverse representation of physical and environmental conditions, preserves an intact functional ecosystem, minimizes the expansion of exotic or invasive species, maximizes the extent of roadless areas, and minimizes fragmentation.

A map of the CLS identifies the categories of environmentally-sensitive lands developed by the Science Technical Advisory Team, as well as an associated set of development guidelines and open space set-asides that have been integrated into the County's planning and zoning regulations and are required for development projects that are subject to a rezoning or other discretionary action. The CLS is part of the Environmental Element of Pima County's Comprehensive Land Use Plan's Regional Plan Policies.

Table 2. Acres of Pima County's Conservation Lands System that would be impacted by typical 400-foot right-of-way associated with SunZia routes.

CLS Categories	SunZia Routes Through Pima County		
	Preferred	**4C2**	**4C2 Local Alternative**
Important Riparian	24 acres	670 acres	976 acres
Biological Core Management	638 acres	970 acres	462 acres
Multiple Use Management	124 acres	592 acres	173 acres
Special Species Management	*See analysis below*		

Important Riparian Areas constitute the most biologically sensitive of CLS lands. They are "critical elements of the Sonoran Desert where biological diversity is at its highest... [They] are valued for their higher water availability, vegetation density, and biological productivity. They are also the backbone to preserving landscape connectivity."[24] Pima County guidelines recommend a landscape conservation objective of 95% undisturbed natural open space for Important Riparian Areas.

Biological Core Management Areas are "those areas that have high biological values. They support large populations of priority vulnerable species, connect large blocks of contiguous habitat and biological reserves, and support high value potential for five or more priority vulnerable wildlife species." Pima County guidelines recommend a landscape conservation objective of 80% undisturbed natural open space for Biological Core Management Areas.

Multiple Use Management Areas are "those areas where biological value are significant…[and] support populations of vulnerable species, connect large blocks of contiguous habitat and biological reserves, and support high value potential habitat for three or more priority vulnerable species." [17] Pima County guidelines recommend a landscape conservation objective of 66-2/3% undisturbed natural open space for Multiple Use Management Areas.

Special Species Management Areas are "areas defined as crucial for the conservation of specific native floral and faunal species of special concern to Pima County. Currently, three species are designated as Special Species: cactus ferruginous pygmy-owl, Mexican spotted owl, and southwest willow flycatcher." [17] Lands designated as Special Species Management Areas occur throughout the other CLS land designations, with the mapped areas displayed as an overlay. Pima County guidelines recommend at least 80 percent of the total acreage of lands within this designation shall be conserved as undisturbed natural open space and will provide for the conservation, restoration,

[24] See Pima County's Comprehensive Land Use Plan and proposed Multi-Species Habitat Conservation Plan permit documents at: http://www.pimaxpress.com/Documents/planning/ComprehensivePlan/PDF/Policies_Legend/Regional%20Plan%20Policies%20%28pp.%2019-65%29.pdf

or enhancement of habitat for the affected Special Species. As such, land use changes will result in 4:1 land conservation (i.e., four acres conserved for every one acre developed) and may occur through a combination of on- and off-site conservation inside the Special Species Management Area. The 4:1 mitigation ratio will be calculated according to the extent of impacts to the total surface area of that portion of any parcel designated as Special Species Management Area." [17]

Table 3. Acres of Pima County's Special Species Management Areas that would be impacted by typical 400-foot right-of-way associated with SunZia routes.

Overlap with other CLS Categories	SunZia Route 4C2
Important Riparian	284 acres
Biological Core Management	88 acres
Multiple Use Management	473 acres
Areas outside CLS	3 acres

Finally, Critical Landscape Connections are another important component of the CLS. They are "broadly defined areas that provide connectivity for movement of native biological resources but which also contain potential or existing barriers that tend to isolate major conservation areas." [17] Two of the Critical Landscape Connections are "across the I-10/Santa Cruz River corridors in the northwest" and "across the I-10 corridor along Cienega Creek in the east," [17] two areas crossed by the 4C2 route.

The proposed SunZia Project poses significant threats to the CLS, but the DEIS does not quantify or even qualify impacts to the CLS, a crucial component of the larger SDCP. Without further evaluation of the CLS and other components of the SDCP such as Pima County's proposed Multi-Species Conservation Plan, the DEIS does not satisfy the federal mandate that a DEIS "shall include discussions of possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned." 40 C.F.R. § 1502.16(c). Furthermore, the DEIS does not align with 40 C.F.R. § 1506.2(d) which states that, "To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law."

More detailed conservation guidelines and the CLS map can be found in Pima County's Comprehensive Land Use Plan and proposed Multi-Species Habitat Conservation Plan permit documents.[17]

Biological Resource Conservation Areas

Beginning on DEIS page 4-81, several biological resource conservation areas are identified. It appears however that the list is not complete. The most significant source of funds for open space in Pima County came from voter approval in 2004 of $174 million in bond funds to acquire conservation lands identified as Habitat Protection Priorities. Several of the properties purchased with these bonds funds are not analyzed in the DEIS.

Cienega Valley – Empire Ranch Reserve

The DEIS does identify Cienega Creek Natural Preserve as a conservation area in this county reserve area. The DEIS fails, however, to identify Bar V Ranch, which would be crossed by Subroute 4C2, as a conservation area. Bar V Ranch was conserved not only through over $8 million dollars in conservation investment from Pima County in the purchase of fee simple lands and state grazing leases, but also through $500,000 in scenic easement funding from the State Transportation Board in 2004 in order to preserve viewsheds. Bar V Ranch is a critical component of the county's preserve system, supporting habitat for at least 34 of the 55 Priority Vulnerable Species identified in the Sonoran Desert Conservation Plan.

Subroute 4C2 Local Alternative would directly cross the Poteet property. This 83-acre property was purchased in 2005 and supports important riparian habitat, including habitat for at least seven Priority Vulnerable Species.

Another property in the reserve area that would be affected by the 400-foot right-of-way associated with Subroute 4C2 is the Walden property. This property supports habitat for the Mexican long-tongued bat, Mexican garter snake, and Swainson's hawk, among others.

San Pedro Valley Reserve

The DEIS analyses impacts to the county's A7 Ranch beginning on pages 4-84 and 3-106.

However, the DEIS fails to consider impacts to Pima County Six Bar Ranch, which the BLM Preferred Route would cross. This 12,000 acre ranch contains a major tributary to the San Pedro River – Edgar Canyon. Besides supporting habitat for a variety of wildlife, the ranch is important in providing an open space corridor between the Santa Catalina and Galiuro Mountains. Much more information about this property, and all other county preserved properties, can be found in the *Protecting Our Land, Water, and Heritage: Pima County's Voter-Supported Conservation Efforts* report published in February, 2011.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS must adequately analyze the direct, indirect, and cumulative impacts of SunZia to Pima County's Sonoran Desert Conservation Plan, Maeveen Marie Behan Conservation Lands System, and reserves. Before a Final EIS and Record of Decision is issued, the BLM needs to more thoroughly analyze possibly conflicts between the proposed action and this local land use plan, as required by 40 C.F.R. §§ 1502.16(c) and 1506.2(d).

Arizona's Wildlife Linkages

As detailed in the DEIS, SunZia has numerous potential impacts to Pima County's and southern Arizona's wildlife linkages.[25] The protection of wildlife linkages is a core focus of the Sonoran Desert Conservation Plan and the Coalition for Sonoran Desert Protection. Significant local resources, including millions of dollars of open space purchases and infrastructure investments, have been spent on protecting Sonoran Desert wildlife linkages in recent years.

Generally speaking, a new transmission line, new or improved access roads, and increased vehicle traffic and associated maintenance activities could create habitat fragmentation that could impair the functionality of wildlife linkages and migration corridors. New access roads associated with the transmission line could facilitate the introduction and spread of invasive species, as well as unauthorized motorized activity and associated disturbances that could impair the functionality of the wildlife linkages.

The DEIS analysis of potential impacts to these important linkages infers on numerous occasions that because linkages already have impairments (i.e. existing highways, railways, etc.), that the addition of a transmission line and associated infrastructure would not appreciably further degrade their functionality. For instance, the DEIS (4-87) states, "Project links cross strands with a mixture of new access roads and existing roads requiring upgrades. I-10 and the UPRR are significant, pre-existing barriers to wildlife movement south of the Project (in strands 1, 2, 3, and 4), such that any additive effects from Project development would not contribute substantially to a reduction of wildlife movement potential." We question the assumption that additional and improved access roads associated with the project would not "contribute substantially to a reduction of movement potential". Depending upon the species in question, the addition of new roads, or improvement of existing roads, could indeed have significant impacts on wildlife movement potential, especially if such movements are more localized and do not traverse the entire length of the linkage. In addition, direct mortality from traffic is likely to occur in these linkages – an impact that has not been quantified in the DEIS. It is important to note that linkages are not assumed to be traversed in their entirety by wildlife, but rather represent swaths of habitat that are important for general habitat connectivity, dispersal movements, and in some cases, function as habitat for resident wildlife.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. The Final EIS should more accurately analyze and characterize the impacts SunZia would have upon habitat connectivity for the species that have been modeled for the affected Arizona Wildlife Linkages. In addition, BLM should consult with AZGFD and USFWS to identify adequate mitigation measures to avoid, minimize, and offset impacts to these wildlife linkages resulting from road construction, improvement, maintenance, and associated traffic.

[25] Detailed reports and spatial data for all modeled wildlife linkages in Arizona, see: http://corridordesign.org/linkages/arizona

VIII. Cumulative Impacts

Under NEPA, BLM is required to consider the cumulative impacts associated with the 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." *Natural Resources Defense Council v. Callaway*, 524 F.2d 79, 88-89 (2d. Cir 1975).

A comprehensive cumulative impacts analysis is essential to inform the proper siting, design and operation of transmission projects. The Final EIS should fully evaluate the potential cumulative impacts of all current, proposed and reasonably foreseeable projects that will impact the lands and resources traversed by the line. The following should be incorporated into the cumulative effects analysis:

- Impacts to special status species and their habitats from wind farms, utility-scale solar, natural gas, and other energy development that SunZia would enable the construction of or carry energy from. Activities and designations include but are not limited to: 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)[26], 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 high voltage electric transmission line and substations. Proposed routes for Southline are in close proximity to SunZia's proposed alternatives between Willcox, AZ and Deming, NM. 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 DEIS (Figure 4-1, 4-249) 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 Final EIS needs to take this new information into consideration in its cumulative impacts analysis.
- The proposed Bowie Power Station, a 1,000 megawatt electric generation facility planned for southeastern Arizona near the community of Bowie in Cochise County.
- Direct and indirect impacts to lands with wilderness characteristics and values, to 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

[26] NREL Western Renewable Energy Zones, Phase 1: QRA Identification Technical Report http://www.nrel.gov/docs/fy10osti/46877.pdf

creation (both legal and illegal) and other human developments that are contrary to wilderness management.
- The introduction and spread of non-native, noxious plants and;
- Changes to fire frequency, fire regimes and fire management.

Recommendations: We encourage the BLM to select the "no action alternative". However, if BLM selects an action alternative, we encourage the BLM and SunZia to consider the following recommendations. For all of the above projects and activities, the Final EIS should analyze potential impacts and timing to provide a full picture of potential cumulative impacts. BLM and SunZia should conduct a more thorough cumulative impacts analysis, to include impacts to special status species from energy development enabled by SunZia, the proposed Southline Transmission line, the proposed Bowie Power Station, direct and indirect impacts to lands with wilderness characteristics and values, introduction and spread of non-native noxious plants and changes to fire frequency, regimes and management. A comprehensive cumulative impacts analysis will contribute to informed decision-making as required by NEPA, and help inform appropriate mitigation measures, opportunity costs and larger picture decisions about the level of development that can be sustained by the environment and local communities.

Summary:

Defenders is committed to guiding our nation's transition to clean energy in a way that protects wildlife and habitats by ensuring renewable energy and transmission projects are built "smart from the start" so as to avoid, minimize and effectively mitigate for negative impacts to our environment, wildlife habitat and other sensitive resources.

We recognize that new transmission lines will be needed in some cases to carry renewable energy to population centers, and create improved transmission capacity and reliability. However, renewable energy and associated transmission development are not appropriate everywhere on the landscape.

Upon review of the DEIS for SunZia, we urge BLM to select the "no action alternative" for the following reasons:

1) All proposed routes would adversely impact ecologically sensitive areas and wildlife resources, including wildlife habitats with regional and global significance;
2) The stated purpose and need for the SunZia Project is misleading and incomplete;
3) The BLM's alternatives analysis is not consistent with the Sunzia Project's stated purpose and need and does not evaluate the full range of reasonable alternatives. Other alternatives not yet analyzed, or other projects, could adequately serve the stated purpose and need;
4) The impact analysis for wild lands and conservation plans is inadequate;
5) The public process has lacked transparency and effective public engagement.

SunZia is a highly controversial project. We are concerned with the quality and nature of the public process that has been conducted by the BLM for the SunZia project to date. As such, BLM should

provide additional opportunities for meaningful public engagement leading up to the Final EIS, so as to comply with the intent and purpose of NEPA. Issues and input gathered from such public engagement should be used by BLM to inform and guide its decision making process. BLM should consider engaging the USIECR or other professional mediators to ensure productive communication and increase the likelihood of resolving outstanding conflicts.

We appreciate the opportunity to submit these comments.

Sincerely,

Matt Clark
Southwest Representative
Defenders of Wildlife

Carolyn Campbell
Executive Director
Coalition for Sonoran Desert Protection

Melanie Emerson
Executive Director
Sky Island Alliance

Paul Green
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