SunZia Southwest
TRANSMISSION PROJECT

COMMENT FORM

U.S. Department of Interior
Bureau of Land Management
New Mexico State Office

Draft Environmental Impact Statement and Resource Management Plan Amendments (May 2012)

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Organization (if applicable)		
Add to mailing list	☒ Yes	☐ No
Withhold personal information*	☐ Yes	☒ No
Receive notification of EIS availability?	☒ Yes	☐ No

COMMENTS:

See attached letter

Attach additional pages, if needed.

SEND COMMENTS TO:

SunZia Southwest Transmission Project | c/o EPG, Inc. | 4141 N. 32nd Street, Suite 102 | Phoenix, AZ 85018

**Copies of comments will be available for public review. Individuals requesting their personal information be withheld from public review or from disclosure under the Freedom of Information Act must check "YES" in the appropriate box. Such requests will be honored to the extent allowed by law.*

Audubon ARIZONA

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Audubon Arizona is the state office of the National Audubon Society and as such we respectfully submit the following comments concerning the Draft Environmental Impact Statement (DEIS) for the SunZia interstate transmission line. We appreciate the extended analysis BLM gave to evaluating the alternative routes for this very large and intrusive project. We remain very concerned that the majority of routes, including the preferred alternative, are proposed for the lower San Pedro River valley and adjacent sky island mountain ranges. The mountains and associated Sonoran desert, grasslands and riparian corridors of southeastern Arizona have been recognized for decades as one of the most biologically diverse regions in the conterminous United States.

Audubon has specific expertise and knowledge about birds, bird habitats and bird related recreation and economic values, therefore we are limiting our comments primarily to those topics. Our overall concern is that the DEIS is lacking in specifics of construction, design, and land disturbing impacts related to surface access for construction and maintenance.

Lower San Pedro River (Benson north to Winkleman)

The San Pedro River is a unique and extremely important biological asset in the arid southwest. As one of the few undammed and flowing rivers the San Pedro functions as a vital corridor and refugia habitat for a wide diversity of plants and animals and exhibits a remarkably intact riparian system including extensive stands of Fremont cottonwood (*Populus fremontii*), Goodding's willow (*Salix goodingii*) gallery forest and large mesquite (*Prosopis velutina*) bosques. Duncan and Slagle (2004) describe the San Pedro River as one of the most significant perennial undammed desert rivers in the United States. Species that are listed or proposed for listing under the Endangered Species Act are represented in sustainable numbers within this corridor.

The National Audubon Society has recognized the San Pedro River corridor from north of Benson to the confluence with the Gila River at Winkleman as a globally Important Bird Area (IBA). The values that earn this recognition include some of the highest nesting densities of riparian obligate birds in the western United States and a critically important fall and spring migration corridor for thousands of neotropical migrants. Identified as an IBA in January of 2007, the lower San Pedro River was scientifically peer reviewed and subsequently designated as a **Global Important Bird Area** in January of 2008. http://aziba.org/?page_id=461 IBA

designation is particularly relevant to protecting critical habitat utilized by birds during some part of their life cycle (breeding, feeding, nesting, and migrating) as well as conserving the general biodiversity of wildlife species.

The lower San Pedro River supports a substantial part of the population for the federally endangered southwestern willow flycatchers (Empidonax tralli extremis) and the western population of Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*) that is currently being evaluated for listing. The Arizona Game and Fish Department documented 164 southwestern willow flycatcher territories consisting of 307 adult birds in 2005, the last year of extensive surveys (English *et al.* 2008). Over 100 species of breeding birds and another approximately 250 species of migrant and wintering birds occur in the area, representing roughly half the number of known breeding species in North America. The San Pedro River serves as a migratory corridor for an estimated 4 million migrating birds each year. Notably, 36 species of raptors, including the gray hawk (*Asturina nititda* = *Buteo nitidus*), Mississippi kite (*Ictinia mississippiensis*), common black hawk (*Buteogallus anthracinus*), and zone-tailed hawk (*Buteo albonotatus*) can be found within the San Pedro River watershed. Regarding the gray hawk, the San Pedro is thought to support more than 40 percent of the nesting gray hawks in the United States. Land birds occurring in significant numbers/density and/or diversity include Bell's vireo (*Vireo bellii*), Lucy's warbler (*Vermivora luciae*), and Yellow warbler (*Setophaga petechial* = *Dendroica petechial*).

These migratory bird values are contributing elements to a collaborative conservation initiative and new national wildlife refuge along the lower San Pedro River in Cochise, Pima and Pinal Counties, Arizona that is proposed by the southwest region of the U.S. Fish and Wildlife Service.

The Lower San Pedro River IBA's southern boundary begins at 3 Links Farms in Cochise County north of The Narrows and follows the San Pedro River downstream, north, through Pima and Pinal counties to Winkelman. The majority of the land is privately owned and only select properties in public ownership or under conservation easement and management are specifically included in the 51.2 square mile, 32,762 acre IBA. (Attached map). Major tributaries that have been identified as having high riparian habitat values in the San Pedro River watershed include Paige Canyon, Redfield Canyon, Hot Springs Canyon, Buehman Canyon and Aravaipa Creek. The riparian habitats in these and similar drainages are of critical importance to the ecological health of this region.

Numerous species of endangered and threatened native fish species persist in the lower San Pedro river watershed. Aravaipa Creek, a possible SunZia Alternative Route, is a major tributary to the lower San Pedro River and contains an intact native fish assemblage, including the endangered spikedace (*Meda fulgida*) and loach minnow (*Tiaroga cobitis*). The presence of a robust population of these fishes in Aravaipa Creek, and the largely unregulated hydrology of its waters, led to a 46.1-mile reach of Aravaipa Creek and its upper tributaries – Deer Creek and Turkey Creek - being designated as spikedace critical habitat. Similarly, critical habitat for these species exists within Hot Springs Canyon (5.8 miles plus 3.4 additional miles within Bass

Canyon, an upper tributary) and in Redfield Canyon (4.0 miles). Hot Springs and Redfield canyons are tributaries to the lower San Pedro River near Cascabel.

The **Arizona Partners in Flight *Bird Conservation Plan*** states, "Riparian woodlands comprise a very limited geographical area that is entirely disproportionate to their landscape importance, recreational value, and immense biological interest (Lowe and Brown 1973). It has been estimated that only 1% of the western United States historically constituted this habitat type, and that 95% of the historic total has been altered or destroyed in the past 100 years (Krueper 1993, 1996)... Riparian woodlands are among the most severely threatened habitats within Arizona.... Maintenance of existing patches of this habitat, and restoration of mature riparian deciduous forests should be among the top conservation priorities in the state". http://www.azgfd.gov/pdfs/w_c/partners_flight/APIF%20Conservation%20Plan.1999.Final.pdf.

The analysis in this DEIS that the lower San Pedro River Valley is already impacted and by inference fragmented by human uses is flawed. The recently completed analysis of wildlife habitat fragmentation and corridors identified the lower San Pedro River valley as second only to the Grand Canyon ecosystem for intact fish and wildlife habitats as reported in the "Arizona Wildlife Linkages Assessment Document" conducted by Arizona Department of Transportation (ADOT) and Arizona Game and Fish Department (AGFD) with involvement by FHA, BLM, USFS, USFW, Northern Arizona University. Un-fragmented landscapes are key indicators developed by biologists in assessing the conservation value of regions and sites and the imminence of the threats they face (Baker, 2010). Large blocks of habitat have the potential to sustain viable species populations and they permit a broader range of species and ecosystem dynamics to persist. Studies have shown that even specialized species such as neo-tropical migrants are using the entire watershed, not just the "green ribbon" created by the lower San Pedro River valley (LSPRWA, 2006). The SunZia route alternatives that traverse the San Pedro River Valley or cross through the Aravaipa upper watershed will introduce a linear disruption to a largely un-fragmented habitat block that has been successfully recovering from past human impacts for over 40 years. The road that parallels the San Pedro River from Cascabel to San Manuel is unpaved and has low traffic volume, minimizing the linear impacts to wildlife movement.

Much of the land identified for potential routing of the SunZia lines, including the preferred route, are identified by NatureServe and The Nature Conservancy as protected conservation lands either by fee simple acquisition or conservation easement. The proposal to cross lands so identified with a disrupting power line diminishes the value of these lands for ecological conservation. Land owner or manager agreement not-with-standing, Audubon Arizona holds the strong opinion that allowing construction of power lines across designated conservation lands impacts the value of those lands for conservation purposes. (Attached Map)

The Nature Conservancy in their scoping comments to the BLM with regard to the SunZia transmission project summarized a good deal of these conservation efforts:
"Over the last three decades The Nature Conservancy and many other agencies and organizations have been working steadily to protect the Lower San Pedro Basin. This area has

become a focal point for conservation and mitigation investments because of the opportunity to protect and restore a relatively undisturbed river system, cross-valley wildlife movement, and ecological processes such as fire that maintain ecosystem health.
Partners in this effort include the Bureau of Land Management, Bureau of Reclamation, Salt River Project, Arizona Game and Fish Department, Pima County and a number of private landowners. The Resolution Copper Company has offered to protect additional lands in the valley through its proposed land exchange for a mine site in Superior. Together, these partners have protected close to 40,000 acres and invested over $25 million in acquisition of conservation lands and appurtenant water rights. Close to one third of the lower river corridor is now in protected status, and stream flow and habitat conditions are improving."

Willcox Playa/Cochise Lakes IBA

This IBA was identified as a **Global Important Bird Area** in October, 2011 and encompasses the 74 square mile, 47,343 acre Willcox Playa, a broad alkaline lakebed fringed with semi-desert grassland (primarily saltgrass and sacaton) and mesquite. **(attached map)**

The playa is seasonally flooded to a shallow depth. Outlying this playa are the satellite lakes/wetlands of Cochise Lakes (or aka Lake Cochise), alkali flats, and Willcox Playa Wildlife Area containing Crane Lake. The Playa itself is administered by the Department of Defense and the U.S. Army Corps of Engineers. It is not managed in anyway, and is posted no trespassing. On the upper east side of the playa is the Arizona Game and Fish Department managed Willcox Playa Wildlife Area, consisting of 555 acres. There are ten "pot hole" ponds, and one 30-acre impoundment at the Wildlife Area. The significant avian values are over-wintering Sandhill Cranes and migratory and wintering shorebirds, waterfowl, and waterbirds. The Wildlife Area (Crane Lake), and Cochise Lakes, for roosting, resting, and feeding. Sandhill Cranes depend heavily on the surrounding agricultural lands of the broader Sulphur Springs and Bonita Valleys for feeding, particularly in fields of waste corn.

The site is important to special status avian species such as Swainson's hawk, scaled quail, chestnut-collared longspur and Cassin's sparrow. It supports significant concentrations of shorebirds (>100) and cranes (>2000). Willcox Playa and environs supports the second largest over-wintering concentration of Sandhill Cranes (Grus canadensis) in Arizona, typically 4,000 to 9,000 birds (White Water Draw Wildlife Area to the south over-winters 10,000 to 22,000 cranes). There are occasional years when crane numbers spike when a large number of birds (>13,000) from White Water Draw switch to roosting in this area (using either the Playa or Crane Lake).

Most significantly both in spring and late summer shorebirds can stop-over in very substantial numbers (400-800 individuals at Cochise Lakes). These in-migration shorebird species using the include: Wilson's Phalarope (April, May, July, Aug., Sept.), Willet (April), Least Sandpiper (April, Aug., Sept.), Western Sandpiper (April, Aug., Sept.), Long-billed Dowitcher (May, Sept.), Black-necked Stilt (July, Aug., Sept.), and American Avocet (July, Aug., Sept.), plus lesser numbers of other shorebird species (Killdeer, Marbled Godwit, Spotted Sandpiper, Solitary Sandpiper, Greater Yellowlegs, Long-billed Curlew, Baird's Sandpiper, Pectoral Sandpiper, Stilt Sandpiper, and Red-necked Phalarope). Small numbers of some shorebirds occasionally breed

within the IBA, including American Avocet and rarely Snowy Plover (Audubon WatchList 2007-Yellow, AZGFD Species of Greatest Conservation Need 2006).

Ducks over-winter on the lakes in large flocks, primarily composed of American Wigeon, Northern Shoveler, Ruddy Duck, Lesser Scaup, Ring-necked Duck, Cinnamon Teal and Green-winged Teal. In rare very wet winters, waterfowl in huge numbers (>15,000, half or which are Green-winged Teal) come to feed and rest within the Playa.

In a 2005 USDA Forest Service Technical Report, Manville said that collisions with power transmission and distribution lines are estimated to kill as many as 175 million birds annually, and an additional tens to hundreds of thousands more birds are electrocuted. The difficulty with quantifying the impact of these utilities is that due to great expanse of area they cover they are poorly monitored for both strikes and electrocutions (Manville 2005). In the San Luis Valley of Colorado, collisions with transmission lines were one of the contributing mortality factors to the experimental whooping cranes population. On certain sections of transmission lines in the San Luis Valley where wetlands and agricultural foods are bisected by transmission lines, Sandhill Crane collision events have been as high as 75 birds a night (Mark Smith pers. comm.).

A 2000 report completed for Idaho Hells Canyon transmission line complex summarized the following factors contributing to the susceptibility of a bird species to collision and the risks associated with a transmission line (Bevanger 1994). (1) biological, (2) topographical, (3) meteorological, and (4) technical aspects. Biological aspects to consider include bird vision, flight abilities, flight speed, activity patterns, and behavior during displays, hunting, or landing. Topographical factors to consider include the transmission line height and alignment in relation to the surrounding terrain. Bird flight lanes often concentrate in low spots in the landscape, e.g., river drainages. Lines that run perpendicular to these areas are more apt to be hit by birds. Line siting in the Sulphur Springs Valley segment of Arizona should consider these factors and obtain information about the major Sandhill crane and avian flight corridors north to south across Interstate 10 between the Willcox Playa and Bonita valley to the north. The SunZia lines should be buried through identified Sandhill crane movement and migration corridors. Research at diverse locations reveals that Sandhill crane collisions with powerlines are most prevalent for birds moving to and from feeding and roosting locations. An inferior solution to buried lines is installation of avian collision averters as recommended by Murphy, etal. 2009.

Cienega Creek Potential Important Bird Area

Located southeast of Tucson, this small riparian habitat is a Pima County designated conservation area that has habitat for riparian obligate birds and native fishes. One of the Tucson route alternatives cuts through this site and another is immediately adjacent closer to the interstate corridor. We strongly recommend avoidance of this riparian habitat.

Economic Values of Ecotourism

We wish to emphasize the economic values of watchable wildlife, particularly bird watching, to the communities of the San Pedro River and its tributaries, as well as Wilcox. The Willcox Playa and associated environs represent well-known ecotourism

hot-spots and birders in particular come from all over the world to bird this region. Ecotourism is especially important for the dispersed rural communities in Cochise, Pima and Pinal counties. Willcox hosts a major birding festival focused upon the wintering Sandhill Crane (*Grus canadensis*) population that attracts hundreds of visitors every year. If ecotourism were reduced because of direct, indirect and cumulative impacts of the transmission line, there would be direct economic impacts to the various communities, from Winkelman to Benson and Willcox, that are not assessed in the DEIS.

In a 2006 study, the Outdoor Industry Foundation reported that all outdoor wildlife-related recreational activities generated $730 billion annually for the United States economy, and of that, watchable wildlife generated $43 billion annually. They reported 66 million Americans participated in wildlife viewing, which supported 466,000 jobs. Estimated economic returns included retail sales averaging $8.8 billion, trip related expenditures of $8.5 billion, and state and federal tax receipts of $2.7 billion. The report is available at http://www.outdoorindustryfoundation.org./ Although much of this economic impact is due to outdoor recreation, other visitors may come to these areas for sight-seeing, for family gatherings, for educational benefits and for many other values not captured by the category of outdoor recreation. According to a 2011 study by the National Fish and Wildlife Foundation, http://www.nfwf.org/Content/ContentFolders/NationalFishandWildlifeFoundation/HomePage/ConservationSpotlights/TheEconomicValueofOutdoorRecreation.pdf, a minimum estimate of the combined value of outdoor recreation, nature conservation and historic preservation shows that over 9.4 million jobs were created while $107 billion was generated by local, state and federal tax revenues.

The most recent economic analysis using US Fish and Wildlife Service data calculated for each Arizona county states that ecotourism is worth over $1.5 billion dollars to Arizona each year - over $300 million in Pima County, over $95 million in Pinal County, and over $25 million in Cochise County each year. http://tucsonaudubon.org/images/stories/conservation/AZ_County_Impacts_-_Southwick.pdf. This analysis revealed that Arizona created 15,058 full and part-time jobs and accounted for salaries and wages of $429,391,051, or nearly $430 million in total household income. Arizona engendered over $57 million in state taxes (state sales taxes of $46,756,837 and state income taxes of $10,821,828) and federal income taxes of $75,544,307. Home owners near parks and protected areas are repeatedly seen to have property values more than 20% higher than similar properties elsewhere. This information should be included in the economic analysis section of the DEIS.

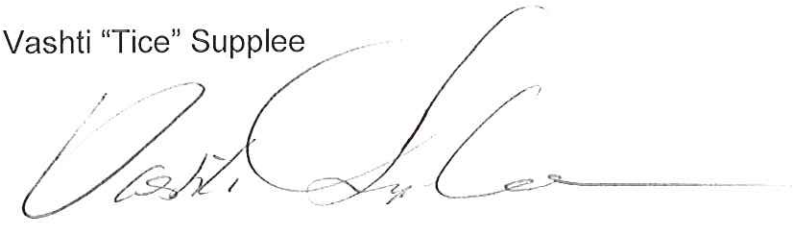
An over-arching concern we have about the decision process for selecting the SunZia route is the complete lack of design specifics. Many of our concerns and the concerns voiced in earlier public comment periods are about the details of construction and maintenance, details that are not addressed in this DEIS. Of particular concern is the accidental introduction of invasive plant species including but not limited to African buffelgrass (*Pennisetum ciliaris*), blue panic (*Panicum antidotale*, a Federal Noxious Weed), bermuda grass (*Cynodon dactylon*), Sahara mustard (*Brassica tournefortii*), and another African grass, Lehman's Lovegrass (*Eragrostis lehmanniana*). The highest risk of invasive species spread is by being carried on vehicles and equipment during construction and also during post-construction maintenance. Spread of these species increases the risk of catastrophic fire and degradation of the upland Sonoran desert biotic communities.

SunZia Proposed Routes Identified by Audubon Arizona as having highest potential impacts to avian species:

The route alternative segments that cause us the greatest concern are highlighted in red on the attached map. We recommend that specific power line designs and construction techniques be included in the analysis of alternative routes. We recommend including in the final documents specific design requirements that will prevent a need to remove or cut trees in riparian corridors and avoidance of bird strikes. Additionally, the final EIS should include an analysis of specific construction methods that will reduce and/or eliminate the need for new roads.

Sincerely,

Vashti "Tice" Supplee



Director of Bird Conservation, Audubon Arizona

Cited Resources

Avian Collision at Transmission Lines Associated with the Hells Canyon Complex; January 8, 2000 report by Science Applications International Corporation and Spatial Dynamics to Idaho Power Company; FERC Report No. 1971.

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Gavin, T.A. and L.K. Sowls. 1975. Avian Fauna of a San Pedro Valley Mesquite Forest. Journal of the Arizona Academy of Science. 10(1): 33-41

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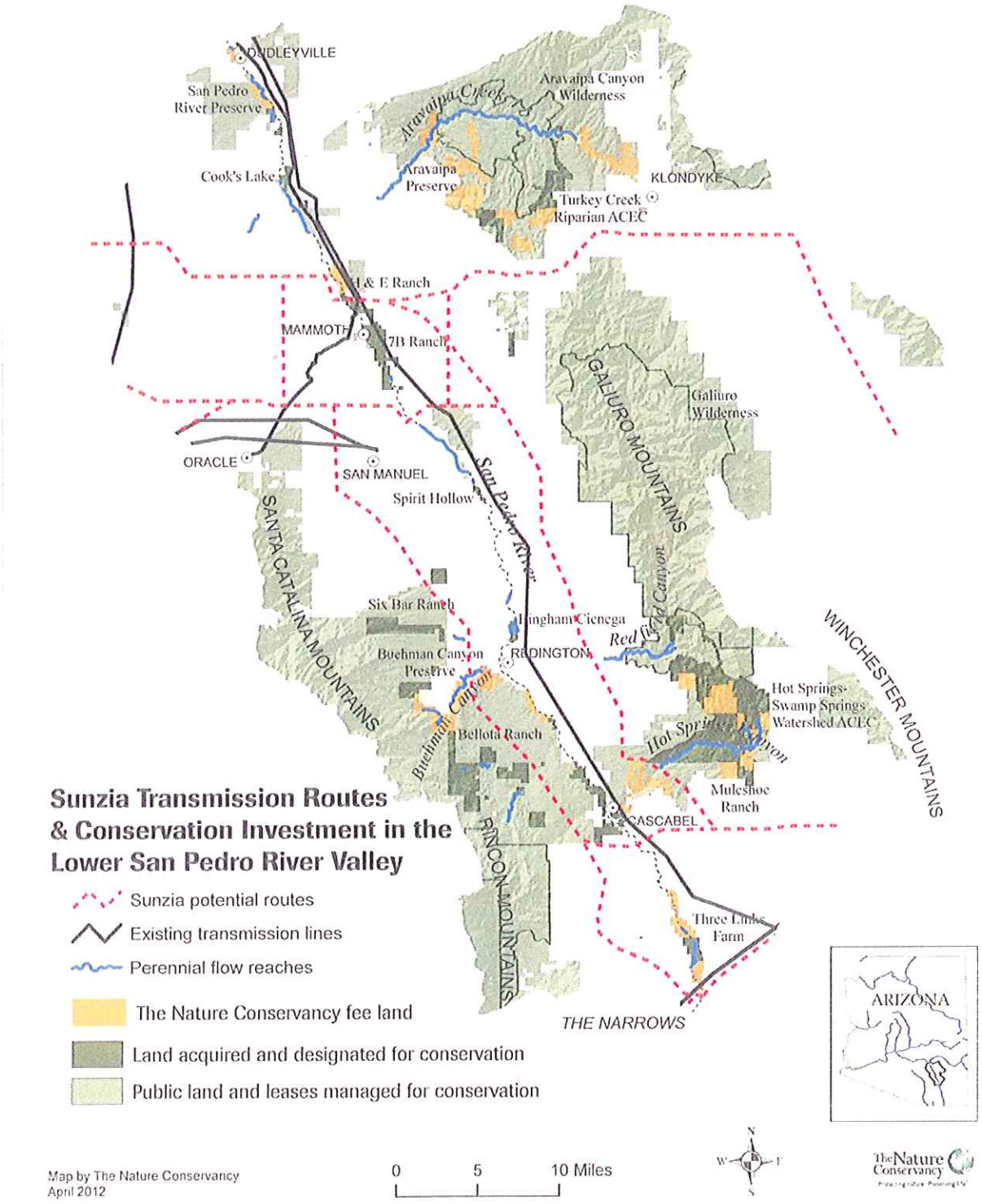
DUDLEYVILLE
San Pedro River Preserve
Aravaipa Canyon Wilderness
Aravaipa Creek
Aravaipa Preserve
Cook's Lake
KLONDYKE
Turkey Creek Riparian ACEC
H & E Ranch
MAMMOTH
7B Ranch
Galiuro Wilderness
GALIURO MOUNTAINS
ORACLE
SAN MANUEL
Spirit Hollow
San Pedro River
SANTA CATALINA MOUNTAINS
Six Bar Ranch
Buehman Canyon Preserve
RIDDINGTON
Red Tail Canyon
WINCHESTER MOUNTAINS
Hot Springs-Swamp Springs Watershed ACEC
Bellota Ranch
Muleshoe Ranch
CASCABEL
RINCON MOUNTAINS
Three Links Farm
THE NARROWS
Sunzia Transmission Routes & Conservation Investment in the Lower San Pedro River Valley
Sunzia potential routes
Existing transmission lines
Perennial flow reaches
The Nature Conservancy fee land
Land acquired and designated for conservation
Public land and leases managed for conservation
ARIZONA
Map by The Nature Conservancy
April 2012
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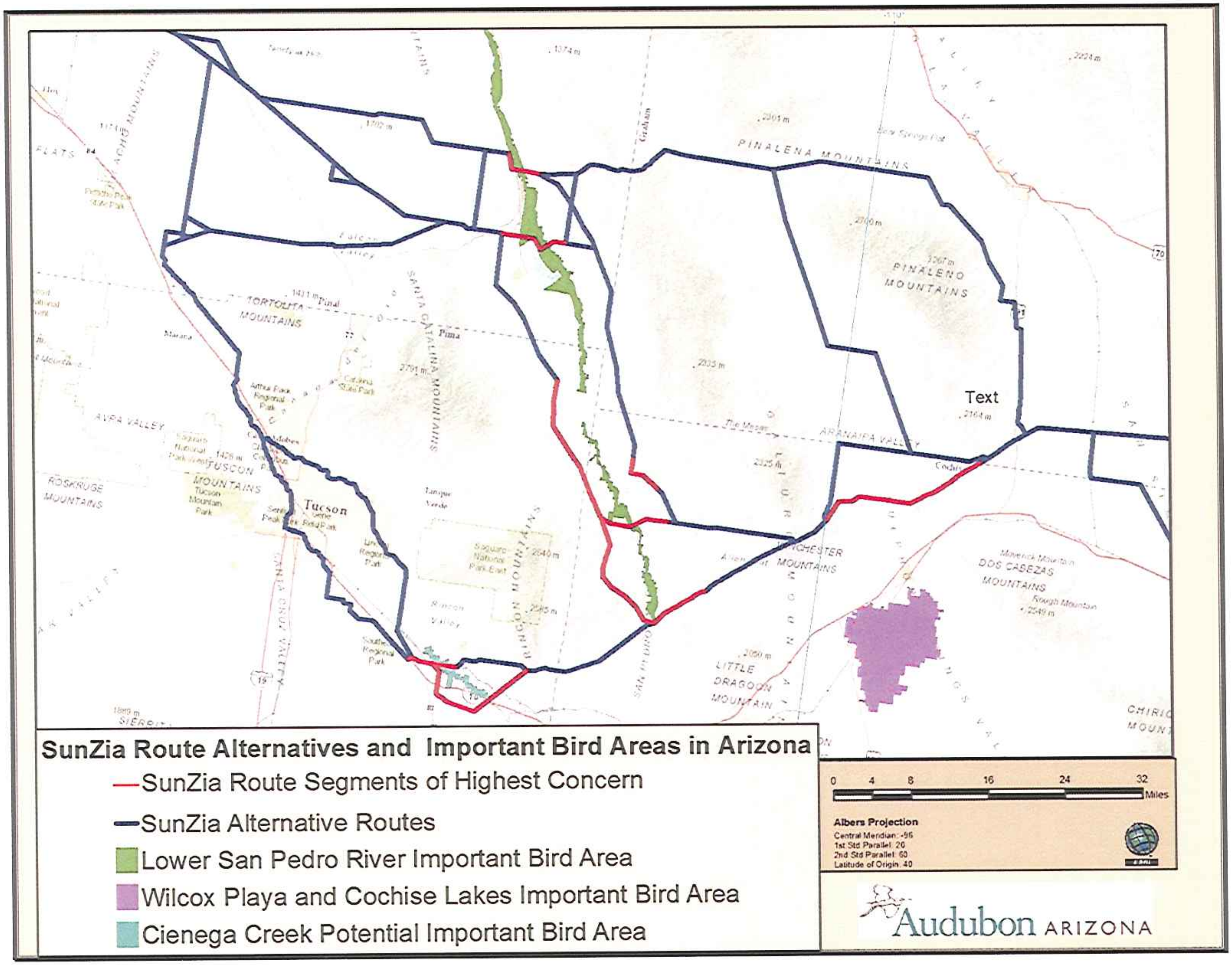
The Nature Conservancy



SunZia Route Alternatives and Important Bird Areas in Arizona
SunZia Route Segments of Highest Concern
SunZia Alternative Routes
Lower San Pedro River Important Bird Area
Wilcox Playa and Cochise Lakes Important Bird Area
Cienega Creek Potential Important Bird Area
0 4 8 16 24 32 Miles
Albers Projection
Central Meridian: -96
1st Std Parallel: 20
2nd Std Parallel: 60
Latitude of Origin: 40
Audubon ARIZONA
Text
PINALENA MOUNTAINS
PINALENO MOUNTAINS
TORTOLITA MOUNTAINS
SANTA CATALINA MOUNTAINS
RINCON MOUNTAINS
TUCSON MOUNTAINS
ROSKRUGE MOUNTAINS
AVRA VALLEY
ARANAIPA VALLEY
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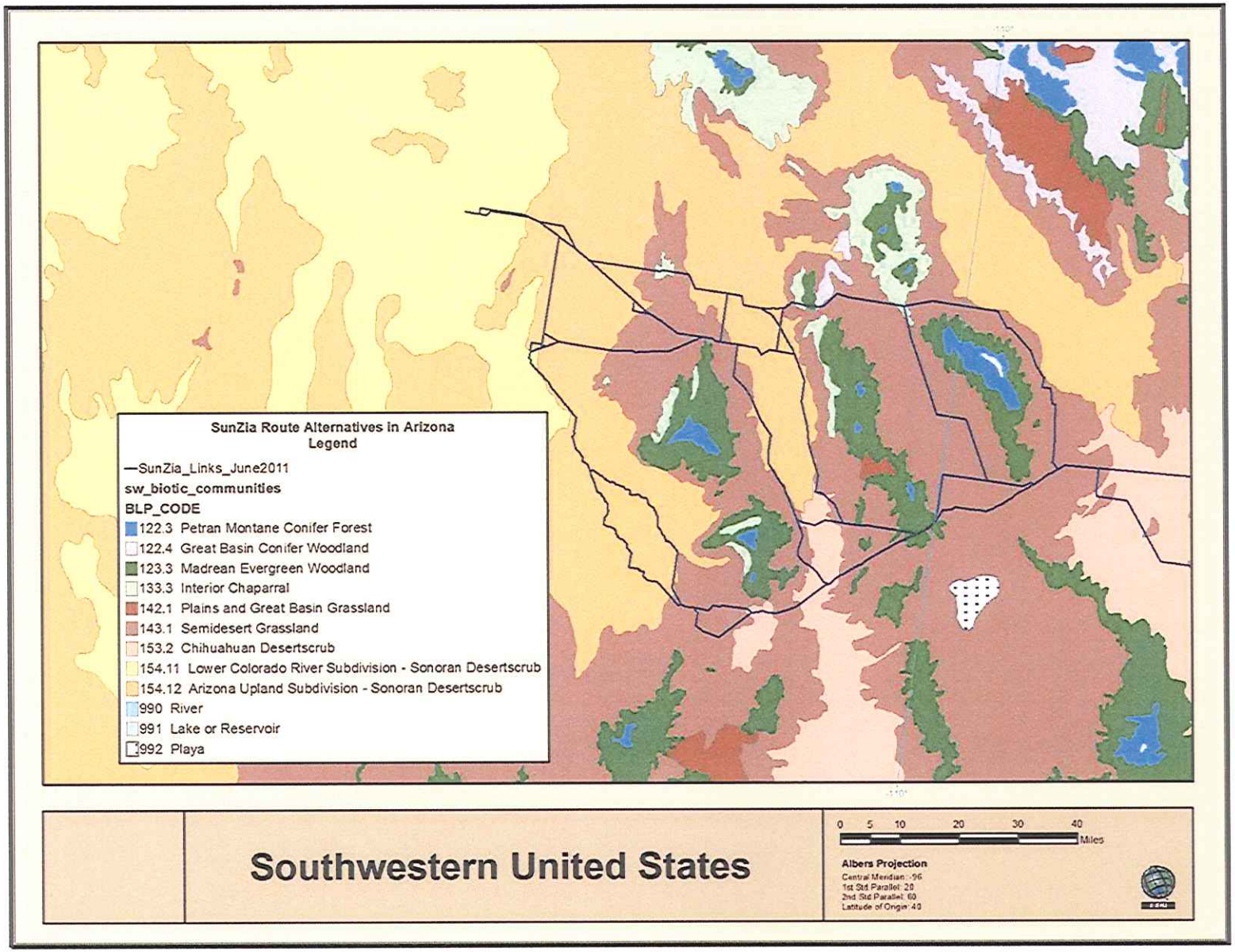
Tucson
Pima
Marana


SunZia Route Alternatives in Arizona
Legend
SunZia_Links_June2011
sw_biotic_communities
BLP_CODE
122.3 Petran Montane Conifer Forest
122.4 Great Basin Conifer Woodland
123.3 Madrean Evergreen Woodland
133.3 Interior Chaparral
142.1 Plains and Great Basin Grassland
143.1 Semidesert Grassland
153.2 Chihuahuan Desertscrub
154.11 Lower Colorado River Subdivision - Sonoran Desertscrub
154.12 Arizona Upland Subdivision - Sonoran Desertscrub
990 River
991 Lake or Reservoir
992 Playa
Southwestern United States
0 5 10 20 30 40
Miles
Albers Projection
Central Meridian: -96
1st Std Parallel: 20
2nd Std Parallel: 60
Latitude of Origin: 40