

**Lands Update**  
For the Arizona Game and Fish Commission  
August 31, 2012  
Phoenix, Arizona

**U.S. FOREST SERVICE LAND AND TRAVEL MANAGEMENT PLANNING**

**General Planning Status** – Please see attached work sheet.

**Apache-Sitgreaves National Forests**

The Forest recently provided an update on the timeline for their forest plan revision. Following the Wallow Fire of 2011, the Forest planning team has been assessing the changed condition resulting from the fire. The Final Environmental Impact Statement and Record of Decision are now expected to be published in the summer of 2013.

**Coronado National Forest**

The Forest's Land and Resource Management Plan (LRMP) internal working draft is in review at the Regional Office in Albuquerque. The Draft Environmental Impact Statement (DEIS) and plan is expected to be available for public input in late fall of 2013. The Department has consulted with the Forest on the draft LRMP and will submit formal comments on the DEIS when it is released.

Travel Management (TMP) is currently in the scoping phase of NEPA. The Department submitted comment letters on all five ranger districts. The Department also participates on the Collaborative Alternative Team (CAT) which will meet three more times in September and October of 2012 to evaluate roads in the Sierra Vista Ranger District. This district is the last of the five ranger districts needing to be evaluated by the CAT. The CAT's purpose is to produce an alternative to the Forest's Proposed Action. Once scoping is complete, the Forest will issue draft environmental assessments (EA's) for each District. The projected date for the issuance of EAs is late 2012 or early 2013. The Department's major concerns with the TMP process have been that the Forest did not accurately portray the available access to the Forest.

**Kaibab National Forest**

The Department commented on the draft Environmental Impact Statement for the Revised Land and Resource Management Plan (LRMP). Overall the Department has been very appreciative of the Forest's high level of collaboration and transparency, as they have engaged the Department and the public continuously throughout their process. As the draft LRMP focuses primarily on vegetation management, the theme of our comments was to ensure that the full range of habitat diversity be maintained. We were supportive of the restoration focus of the draft LRMP, particularly the Forest's proposal to shift a large number of acres out of the timber base in order to restore savannah and grassland conditions. This should benefit pronghorn and other grassland species on the Kaibab and allow for more expansive use of fire as a vegetation management tool. Since the draft LRMP takes a more habitat-based approach as opposed to a species-based approach, it was unclear to the Department exactly how a practitioner might ensure protection of sensitive or listed wildlife species. To that end, the Department recommended the Forest include a practitioner's guide in the front matter of the draft LRMP so that the public can see how to step

through the plan. Travel management and dispersed camping were not addressed in the draft LRMP, but rather through the individual District Travel Management Plans.

The North Kaibab Ranger District has not yet released its Record of Decision for their Travel Management Plan. Tusayan and Williams Ranger Districts are already in the implementation phase.

### **Prescott National Forest**

The Department received advance notice from the Forest indicating that the Final Draft EIS and Land and Resource Management Plan (LRMP) would be published in the Federal Register on August 24, 2012, initiating the 90 day public review and comment period prescribed for in the National Environmental Policy Act (NEPA). The Department will be providing the Forest with a formal comment letter. The Forest will release a Record of Decision (ROD) for their preferred alternative in the summer of 2013. When approved, the new Forest Plan will guide LRMP decisions on the Forest for duration of 10-15 years.

### **Strategic Action Planning Committee for Forest Conservation and Restoration**

The Department continues to participate in a concurrent planning effort on the Forest. The goal is to prioritize opportunities for Cooperative Management on the Forest in coming years under the new Forest Plan. The Department has provided the Forest with the following resources: 1) Central Arizona Grassland Strategy; 2) State and County Wildlife Linkages data for Yavapai and Coconino Counties; 3) The Department's Species and Habitat Conservation Guide (SHCG) and Species of Greatest Conservation Need (SGCN) data layers produced in conjunction with the State's Wildlife Action Plan. These resources will be used by the Forest to prioritize opportunities for funding, NEPA support, and/or implementation as it pertains to cooperative, interagency restoration or conservation actions to be carried out by the Forest.

### **Tonto National Forest**

The Forest Land and Resource Management Plan has been under internal revision and anticipates it will be out for scoping by 2014 with a 4-6 year timeline for the final LRMP and EIS.

## **U.S. FOREST SERVICE - General**

### **Four Forests Restoration Initiative (4FRI)**

4FRI is a federally-funded, US Forest Service Collaborative Forest Landscape Restoration (CFLR) Project to restore ponderosa pine forests across 2.4 million acres of the Apache-Sitgreaves, Coconino, Kaibab, and Tonto National Forests over the next 20 years. Collaboration and planning have been ongoing since 2009, and the Department is a founding member of the 4FRI Stakeholder Group which includes a diverse list of over 35 organizations. The Department is also a Cooperating Agency on the USFS 4FRI Coconino-Kaibab Project, which is an Environmental Impact Statement (EIS) proposing mechanical thinning and burning over 580,000 acres on those two forests. Planning on the Coconino-Kaibab Project is ongoing, and the expected release of the Draft EIS has been delayed from August to late Fall 2012.

## **Apache-Sitgreaves National Forests (A-S)**

### Gila Trout Stream Surveys

The Department conducted monitoring surveys on several Gila trout candidate recovery streams within the Wallow Fire area in Greenlee County in May-August 2012. These surveys were conducted to evaluate the impacts from the Wallow Fire, continuing monitoring efforts that began in 2011. The only Gila trout population that existed on the Apache-Sitgreaves National Forest, in Raspberry Creek, was confirmed to be extirpated. Habitat conditions were also assessed in Raspberry Creek to determine when it would be suitable for reintroduction. Loss of quality pools and heavy sedimentation were documented, which will make this stream unsuitable for several years.

A near complete fish kill was further surveyed in KP Creek, a candidate stream for Gila trout recovery. Only one live fish was found in electrofishing surveys in the entire stream. This lack of fish may benefit recovery in a way by removing the need to conduct a chemical treatment to remove non-native trout prior to reintroducing Gila trout. The habitat was impacted heavily in many areas, which may preclude reintroduction of trout for several years. Quality pool habitat was lost through several reaches and sedimentation is significant throughout much of the stream.

Similar results were found in Coleman Creek, another candidate recovery stream that contained pure Apache trout. A complete fish kill was documented in Coleman, removing the Apache trout that were considered non-native in this drainage. The stream was severely scoured and will likely not be suitable for reintroduction for several years. Survey crews will continue to monitor these streams over the next several years to evaluate changes as the watersheds stabilize.

### Black River Watershed Monitoring

The Department continues to monitor impacts within the Black River watershed in Apache County in July-August 2012. A significant fish kill was documented in the Black River in 2011, while localized impacts were found in the East Fork of Black River, and nearly no impacts on the North Fork of East Fork Black River. Surveys this year have documented reproduction of native fishes in the Black River, including the roundtail chub. Roundtail chub are a candidate for federal listing and are an important species within the Black River. No chub were found in the 2011 surveys; however, numerous young-of-the-year chub were collected in several sites on the Black River in 2012, indicating that they will recover from the fire impacts fairly well.

### Apache Trout Barriers

The Department continues to work with the Apache-Sitgreaves National Forest to make improvements to several Apache trout fish barriers. Flood flows following the Wallow Fire had impacted a couple barriers, particularly the Fish Creek barrier, jeopardizing Apache trout populations upstream. Several barriers have withstood initial floods so far but are still at risk of anticipated higher than normal flows. Plans were developed to improve several barriers to withstand these higher flows. The NEPA analysis is now all that is required to implement these improvements.

The Department assisted the Apache-Sitgreaves National Forest in its hiring process of a shared position in August 2012. The position will officially work for the Forest Service, but will be split funded and jointly supervised by the Department and Forest Service. This position will

focus on completing NEPA for Apache trout recovery projects in an effort complete these projects in a timely manner.

### **Coconino National Forest**

#### **Clints Well Forest Restoration Project**

The Forest released its Clints Well Forest Restoration Preliminary Environmental Assessment (Clints Project). The Clints Project is located about 50 miles south of Flagstaff and encompasses 16,089 acres on the Mogollon Rim Ranger District. The Forest is proposing a variety of vegetation management, fuels reduction, and prescribed burning actions in ponderosa pine and pine-oak habitats. The Clints Project would reduce the risk of landscape-scale fire, protect communities and infrastructure, increase protection for several Mexican spotted owl Protected Activity Centers, and restore forest conditions that will help enhance wildlife habitat. The Clints Project includes the Old and Large Tree Retention Strategy developed through the 4FRI collaborative process.

#### **Wing Mountain Fuels Reduction and Forest Restoration Project**

The Forest released its Wing Mountain Fuels Reduction and Forest Restoration Environmental Assessment (Wing Mountain Project). The Wing Mountain Project is an 11,143-acre area located northwest of Flagstaff within the wildland-urban interface on the southwest side of the San Francisco Peaks. The Forest is proposing a variety of vegetation management, fuels reduction, and prescribed burning actions in ponderosa pine, mixed conifer, grassland, and aspen habitats. The Wing Mountain Project also proposed restoration of two historic springs that have value to northern leopard frogs, Big Leroux Spring and Maxwell Spring. The Department worked with the Forest and one of our constituent groups, the Friends of the Rio de Flag, to design a restoration plan for these springs that begins with a passive approach of returning water to the springs' stream courses and monitoring over time. The Department supports the purpose and need of this project to reduce fire risk, protect communities and infrastructure, and restore forest conditions that will, in part, enhance wildlife habitats. The Wing Mountain Project includes the Old and Large Tree Retention Strategy developed through the 4FRI collaborative process.

### **Kaibab National Forest**

#### **Bill Williams Mountain Restoration Project**

The Forest released its Draft Environmental Impact Statement (DEIS) for the Bill Williams Mountain Restoration Project on the Williams Ranger District. The Bill Williams Project proposed mechanical treatments and prescribed burning on approximately 15,200 acres to reduce the risk of catastrophic wildfire and improve forest health in the City of Williams watershed. Strategic fuels reduction in this area is critically needed, but heavily complicated by steep slopes and difficult terrain rendering normal mechanized timber felling equipment inappropriate. This project is proposing cable-logging systems and helicopter logging, methods that have not been used in this region for some time. Also challenging is the large coverage of mixed conifer habitats, for which agreement on desired conditions and proposed treatments are largely lacking. The Department recently participated in an interagency meeting with the Forest and US Fish and Wildlife Service, where the group agreed to subsequent field- and GIS-based exercises to identify key areas for strategic fuels reduction in mixed conifer habitats. The expected outcome is a spatially-explicit, strategic plan that reduces fire risk while allowing greater flexibility for canopy-dependent wildlife such as the Mexican spotted owl, which occurs on the Mountain. The Department recently submitted formal comments on the Bill Williams Project, which also

proposes restoration of ponderosa pine and pine-oak habitats, grassland habitats, construction of 23 miles of new roads, 16 miles of temporary roads, and obliteration of 28 miles of poorly located roads.

## **BUREAU OF LAND MANAGEMENT (BLM)**

### **Kingman BLM Field Office**

The Department attended an Installation Ceremony on Friday, August 24, 2012 to welcome Roxy Trost, BLM's new Colorado River District Manager. The District Manager has oversight for the Kingman, Lake Havasu City, and Yuma Field Offices.

### **Lake Havasu BLM Field Office**

The Department participated in route evaluations during the week of August 13-17<sup>th</sup>. This week's focus was on routes through Cactus Plain and Bouse. The results from this effort will be used in the development of Travel Management Plans, proposed alternatives, and a proposed decision with NEPA compliance.

## **DEPARTMENT OF DEFENSE**

The Department attended a five-year review public meeting on the Barry M. Goldwater Range. The purpose of the review is to guide the manner in which the U.S. military sustains their mission on the range while managing the ecological health of our natural resources.

## **NATIONAL PARK**

### **Petrified Forest National Park**

The Department, in coordination with the Petrified Forest National Park (PFNP), have sent letters to successful pronghorn antelope hunt applicants in Game Management Unit (GMU) 2A to inform them of the land status change associated with the August 9, 2011, acquisition of the 26,500 acre Hatch Ranch by the PFNP, as authorized by the Petrified Forest National Park Expansion Act of 2004. As part of the PFNP, hunting is no longer permitted on these lands. Hunting is not permitted in national parks unless specifically authorized by Congress. Neither the PFNP Act, nor the PFNP Expansion Act of 2004 provided allowances for hunting. The PFNP Expansion Act of 2004 expanded the authorized PFNP boundary by approximately 125,000 acres from 93,533 acres to approximately 218,533 acres. Prior to the acquisition of the Hatch Ranch parcels, the Bureau of Land Management transferred administrative jurisdiction of approximately 15,228 acres of public lands to the National Park Service in May of 2007. The Department continues to monitor the PFNP expansion (see attached map) and provide updates to the Commission as appropriate.

## **GENERAL UPDATES**

### **Locked Gates on State Land**

The Department continues to collect reports from hunters on locked gates on Arizona State Trust Land. Wildlife Managers are photographing and documenting the locations on standardized forms which are being collected and compiled in a statewide database for prompt attention.

### **Habitat Partnership Committee (HPC) Applications**

#### **Central Arizona Grassland Conservation Strategy**

#### **Sycamore Mesa Juniper Thinning/Agua Fria Antelope Habitat Improvement Project Treatment Units- BLM10 and BLM 11 and PNF4**

This project is an interagency collaborative effort (since 2002) to restore grassland habitat in the Agua Fria grasslands of GMU21 for the benefit of wildlife, watershed and range condition and fuels reduction. There are 5,751 acres currently identified for treatment in the overall project, with 2,367 acres occurring on the Prescott National Forest (PNF) and 3,384 acres occurring on the Agua Fria National Monument (AFNM). To date, 2,578 acres out of the targeted 5,751 have been treated, approximately 45% complete. The project is divided into 31 treatment units of varying acreages and ownership. Not all of the acres within the planned 5,751 acres will be treated. Final acreages to be cut within planned areas are determined after field evaluation and contract refinement. This proposed phase for treatment on Sycamore Mesa includes two identified units on land managed by the Bureau of Land Management and one unit adjacent on the Prescott National Forest. The treatment methods are chainsaw cutting and burning of piled juniper tree slash. The overall goal of this project is to restore and maintain habitat connectivity and quality for pronghorn and other grassland dependent species, by targeting treatments at known pronghorn movement corridors and core habitat patches of open grassland where juniper have slowly invaded.

### **Wildlife Areas**

#### **Arivaca Lake Wildlife Area**

The Department met with the Coronado National Forest regarding a scoping notice on the Arivaca Lake grazing allotment which surrounds Arivaca Lake Wildlife Area – a Commission-owned property managed as a trophy bass fishery. The Department owns the lake and immediate area around the lake, as well as an easement along the road accessing the lake. The Forest administers a grazing lease for 31 Cows Year Long on the allotment but issues annual operating instructions which allow 100 cows to graze for one month during the winter non-growing season. The lake is the only water on the allotment and the cattle depend on the lake for water. The Department is looking into the need for a memorandum of agreement to allow the use of the water for purposes other than fish and wildlife use.

#### **Bonita Grasslands Restoration**

Bonita grasslands restoration is a long term plan to return the mesquite invaded landscape in the Fort Grant/Bonita area to historic grassland. Several mesquite thinning projects have taken place with funding from NRCS and Department funds (HPC, WCF, LIP). Antelope and scaled quail are priority species. Treated areas have had immediate use by pronghorn. The Department participated in a meeting on O-O Ranch with NRCS. The ranch owner is interested in quail

management and brush management on this ranch that will tie into the ongoing Bonita grasslands restoration.

### **Page Springs Hatchery – Restaurant Disposal**

The Commission approved entering into a license agreement and to proceed with disposal of a portion (existing restaurant) of the Page Springs Fish Hatchery property. The land at Page Springs Hatchery was federalized in 1992 when the land was used as the 25% match to the Dingell Johnson funds used for the Hatchery renovations. Because of the Federal Aid interest in the land, the Department must request approval to dispose of the property from USFWS. The Department continues to work with Federal Aid and USFWS on repayment details.

### **Coordinated Resource Management Plans (CRMP)**

The Department organized the annual CRM meetings for Tucson, Cochise, and Graham/Greenlee CRM groups.

#### Rhyolite Peak CRMP

Work continues near Sheldon. An initial meeting was held in April and field work to inventory range health began May 24. Collaborating agencies include Arizona Association of Conservation Districts, NRCS, BLM and State Land Department.

#### 76 Ranch CRMP

An initial meeting was held in June and field work to inventory range health began in August. Collaborating agencies include Arizona Association of Conservation Districts, NRCS, BLM, Forest Service and State Land Department.

#### Horseshoe

The Department continues to coordinate and participate on the CRMP for the Horseshoe and Copper Creek Allotments. The Landscape Assessment Team continues to make progress on various field sessions and beginning the required assessment inventory monitoring for BLM. The Department has been providing assistance with the fieldwork over the summer. This team is made up of agency experts and stakeholders. The next Agency-Stakeholder Planning Team meeting is anticipated for September. There are several active subgroups and topical working groups planning meetings for August and September and the Department participates within these working groups.

### **Natural Resource Conservation Service (NRCS)**

#### Field Offices (Avondale, Chandler, Casa Grande)

The Department made visits to each office for communications and coordination of efforts for providing technical assistance projects. The Department is working with the NRCS state biologist for potential amendment to Conservation Standard and Practice regarding use of non-native fish as vector control with recommendation to revisit use of native fish.

### **PM-10**

#### Pinal County Air Quality Update

As of May 22, EPA is redesignating a portion of Pinal County to nonattainment for the 1987 24-hour PM10 national ambient air quality standard (NAAQS). It appears that the EPA has taken stakeholder input and reduced the size of the nonattainment area by approximately 36% when

compared to the draft nonattainment area boundary proposed in 2010. The areas that were excluded from this final designation were large areas of Tonto National Forest, BLM, and Arizona State Trust Lands that are not developed and did not make sense to include in the nonattainment area. This reduction in size is a positive outcome for the Department in regards to future restrictions to motorized recreation. Many heavily used OHV areas in Pinal County and hunting areas were originally included in the original nonattainment boundary but are now excluded. The areas include populous segments of Pinal County, including the San Tan Valley area, Maricopa, Casa Grande, and portions of Coolidge, Florence and Eloy. The ADEQ and Pinal County Air-Quality Dept will be required to identify sources of PM-10 (e.g. dirt roads, construction, agriculture, livestock ops, etc.) and outline what measures (e.g. State Implementation Plan (SIP)) will be implemented to ensure levels are in compliance with the described federal standards. Pinal County will have approximately 18 months to draft a SIP and associated rules and regulations on PM-10 sources outlined in the SIP. It has been determined that Pinal County has some of the highest PM-10 levels in the country, by EPA estimates. For the past 10 years, air-quality monitors throughout the county have shown persistent violations of the PM-10 standard. The EPA sets air-quality standards based on health-related data, and its threshold for acceptable PM-10 emissions is 150 micrograms per cubic meter over a 24-hour period. To remain in compliance, communities cannot exceed the threshold more than three times in three years.

### **Proposed Rosemont Copper Project**

The Coronado National Forest is currently reviewing public input received during the comment period for the Rosemont Copper Project Draft Environmental Impact Statement (EIS). The Forest received over 25,000 comments during this period. All substantive comments have been identified, coded, and organized and responses are being developed for them. The Forest's response to these comments will be incorporated into future public disclosures for the project as required under NEPA.

The Department has participated in several meetings to discuss mitigation and monitoring measures for impacts to wildlife, habitat, and recreation. A date has not been set for publication of the Final EIS. The Forest has indicated a target date of the end of the calendar year.

## **RENEWABLE ENERGY DEVELOPMENT**

### **Kinder Morgan Lobos CO<sub>2</sub> Pipeline Project**

The Department received notice from Kinder Morgan of their proposed Lobos CO<sub>2</sub> Pipeline Project. The proposed pipeline would consist of approximately 410 miles of 20-inch diameter pipeline, originating in the St. Johns CO<sub>2</sub> field in Apache County and terminating in Denver City, Texas. Kinder Morgan has requested the involvement of the Department as a participating agency to collaborate with representatives of Kinder Morgan, as well as other federal and state resource management agencies. As a part of this project an Environmental Assessment or Environmental Impact Statement will be completed.

### **Proposed Sasabe Natural Gas Pipeline**

The project is proposed to consist of an approximately 60-mile pipeline extending from El Paso Natural Gas' (EPNG) existing South Mainline System near Tucson to the US/Mexico border

near Sasabe. The Project is designed to provide additional export capability to Mexico with an initial capacity of 195 million cubic feet per day. The Department participates on a bimonthly conference call for this project. The project has not yet begun the NEPA process, but has solicited interested agencies. The Department has expressed the desire to participate as a Cooperating Agency. The Federal action agency is the Federal Energy Regulatory Commission (FERC). The project is in the FERC pre-filing review process. Environmental reports (water, T&E species, vegetation, cultural, etc.) are anticipated to be complete this fall. EPNG expects to file the formal application for the project in January 2013.

## **WIND**

### Mohave County Wind Project

BP Wind Energy is currently scheduled to release the first draft of their Bat Conservation Strategy (BCS) to core members for review at the end of August. This draft will be discussed concurrently with the ECP/ACS (Eagle Conservation Plan/Avian Conservation Strategy) to avoid duplication of efforts for participating resource personnel to comment on the draft plans. BP released the initial project Reclamation Plan, and has scheduled a conference call to discuss questions from team members. BP indicated they are waiting for comments from the two federal land agencies for the project; Bureau of Land Management and the Bureau of Reclamation. The National Park Service has requested to be involved in the development of the Reclamation Plan based on the restoration efforts applied to land areas around the project site. The third draft of the ECP/ACS is scheduled to be released to the group in September 2012. The AZGFD and the USFWS both commented on specific changes to mitigation measures proposed by BP, and recommended changes they would like incorporated into the document.

## **TRANSMISSION LINES**

### SunZia Transmission Line Project

The Department organized a cooperators' meeting attended by BLM, ASLD, USFWS, and NPS to discuss biological resource and land management issues related to the Draft EIS. The Department recommended creation of a Cooperative Conservation Agreement (CCA) among AGFD, SunZia, BLM, and ASLD to fully address impacts, adequate mitigation, and funding for successful mitigation. The Ruby Pipeline Project CCA was referenced as a successful model.

The Department submitted comments on the Draft EIS August 22, 2012 (see attached). The Department's main concern is the cumulative impacts that would result from construction of the utility line and associated access roads between the Aravaipa Canyon and Galiuros Wilderness areas. Although the BLM's preferred route is through the west San Pedro River Valley, the Department remains concerned with the possibility that strong support for route 4B (through the Sulphur Springs Valley and Aravaipa/Galiuros) from SunZia, Fort Huachuca, and other parties may influence the final route selection. Using Department expertise and data, including HabiMap™ Arizona data layers, the Department completed analysis to rank each route from least to most potential negative impacts on wildlife and habitat. From a biological perspective, route 4C3 through Tucson clearly represents the least impact to Arizona's wildlife and habitat.

Timeline for SunZia NEPA process:

May 25, 2012	Release of the DEIS
Mid June	Cooperator Meeting – Discuss comments that have not been resolved/incorporated & discuss upcoming public meetings
Late June/July	Public Meetings
Mid August	Conference Call with Cooperators – Opportunity for additional conversation & discussion with Cooperators
August 22, 2012	End of 90 day comment period
End of year 2012	Projected release of final EIS

## **TRANSPORTATION**

### Arizona Passenger Rail Corridor Study

The Federal Transit Administration and Federal Railroad Administration, in cooperation with the Arizona Department of Transportation (ADOT) are preparing a Tier 1 Environmental Impact Statement for the ADOT Passenger Rail Corridor Study. This study will investigate potential high-capacity transportation corridors, which could include intercity rail service between Tucson and Phoenix. The Department has participated in the preliminary stakeholders meetings and has accepted the role as a participating agency on the project. The Department has provided preliminary input at the various meetings to ensure consideration is given to wildlife connectivity, and minimization of impacts to wildlife and habitat through alternative evaluation. The Department is providing data to assist in the development of criteria for the evaluation of the alternatives and Tier 1 analysis process. The Department is concerned about the high number of alternative corridors in the east valley, undeveloped areas that seem to be favored throughout the process due to anticipated development.

### Sonoran Valley Parkway (SVPP)

The Bureau of Land Management (BLM) invited the Department to become a formal Cooperating Agency for the project's Environmental Impact Statement (EIS). The Memorandum of Understanding (MOU) to facilitate our involvement has been finalized. The Department was involved with planning for this parkway with BLM and the City of Goodyear several years ago and provided input on alignments and wildlife related issues/opportunities/constraints, as well as recommendations on types and locations of wildlife crossing structures to mitigate impacts to wildlife movement within the Sierra Estrella – Sonoran Desert National Monument linkage area on BLM lands. The City of Goodyear is the project proponent and needs the parkway to provide access to annexed lands near Mobile. The BLM hosted a webinar kickoff meeting with the cooperating agencies for the development of the EIS in July 2012. The BLM plans to have Draft EIS out to the public in December 2012; a Final EIS in July 2013; and Record of Decision in September 2013. The BLM is interested in Department input on wildlife issues/concerns and input on ways to mitigate negative impacts to wildlife. The Department has been invited to the upcoming meeting.

### US 60, Silver King/Superior

The project is to widen the existing US 60 to a four-lane rural and urban fringe cross section. The project begins around Boyce Thompson Arboretum and ends in Superior. The Department participates on the project team for incorporation of wildlife and recreational access concerns. The project began in the early 2000's and NEPA documentation was completed at that time. Because it has been re-initiated, revisions to earlier documentation are necessary. The project is in the permitting/clearances phase for the geotech investigations for the project. The Department is working with the team to incorporate wildlife friendly specifications into the culvert and bridge designs, along with updating the environmental documentation. This project includes several drainage, bridge structures and lighting that will provide opportunity for wildlife friendly retrofitting. In addition, several wildlife linkages will need to be considered. The Department continues to coordinate and provide information for the biological evaluation and NEPA process. Recently, the Department reviewed and commented on the 20% designs and provided information on movement of sheep in the Mineral Mountains, habitat suitability from the US60 Superior to Globe Linkages design, and information on placement and specifications related to culverts and bridges. The Department is working with the engineers for fencing to funnel animals under US60 and provide under deck lighting at approved crossing areas.

### Yuma Expressway

The Department is participating in the Yuma Expressway Corridor Study which is assessing the feasibility of a proposed corridor alignment along the south and western portions of the City of Yuma. The intent of this study is to evaluate the need and location for roadway infrastructure improvements within the study area, which will include a new crossing over the Colorado River.

### Town of Buckeye

The Department met with the Town of Buckeye for coordination and collaboration to incorporate wildlife habitat management goals for linkages into the various planning processes.

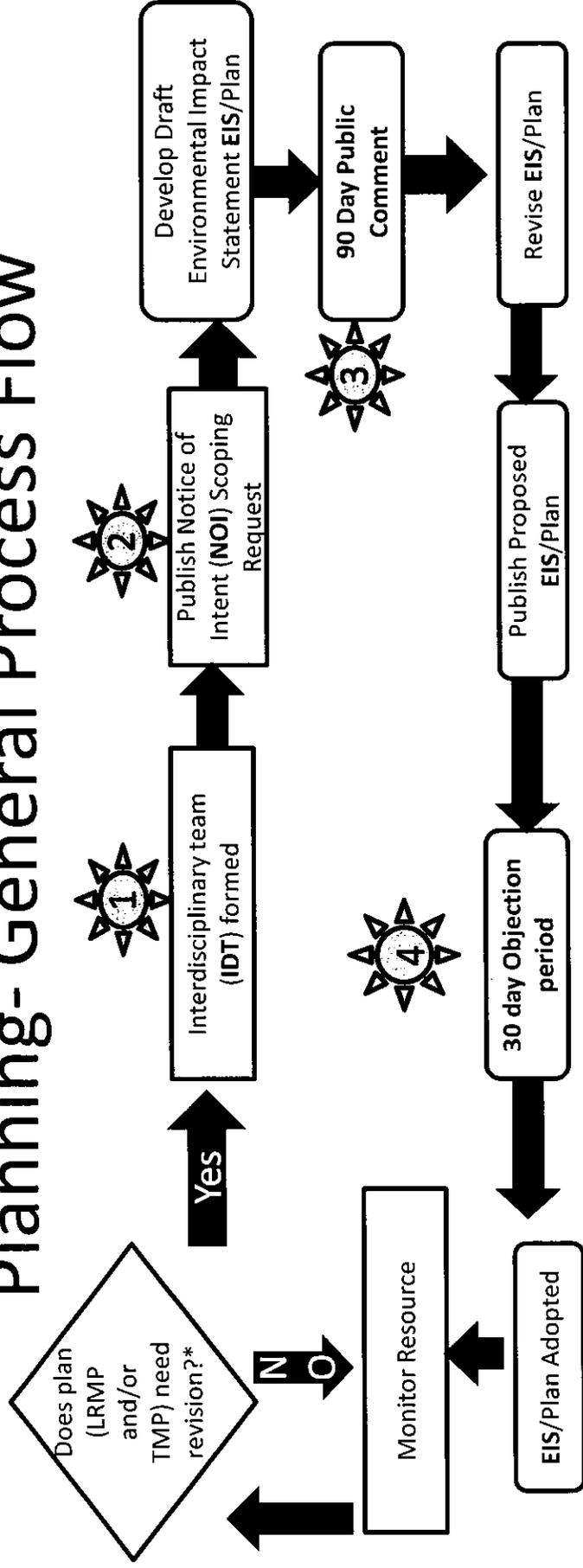
### City of Peoria – Open Space Preservation Program

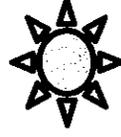
The City Planning and Community Development Department has initiated the development of a comprehensive open space program within the City and Planning Area (General Plan). Previously, the City implemented regulatory tools including Hillside Development Overlay and Desert Lands Conservation Overlay as a means to guide development in these sensitive areas. The Open Space Prioritization, Preservation & Acquisition Program will be designed to work in concert with these tools. The City is currently holding public meetings to solicit stakeholder input on the Program and the modeled priorities. In conjunction, they are working on a 2012 Amendment to the Peoria Open Space Master Plan. The City has received a significant amount of feedback from the OHV community relating to continued access to public lands that fall within the planning area boundary. The City has responded by underscoring the fact that travel management on public lands is controlled by the land owners (in this case BLM and State Land Department) with emphasis that the City has no intention of conducting travel management outside their jurisdiction. However, the City agrees some aspects of "active recreation" (OHV) should be incorporated into their planning as part of the key element for high quality recreational opportunities. Currently the plan has four key elements to the vision for the program: identify ecologically and historically significant lands; provide abundant, high quality recreational opportunities; create an extensive open space network for future generations to enjoy; and prioritize desirable open space properties for acquisition. The Department is currently providing

input on wildlife resources, as well working with Peoria to develop outdoor recreation goals and objectives to incorporate into the plan and prioritization model that include hunting and OHV recreation in addition to those identified for passive recreation. The Department will continue to participate in upcoming meetings.

# U.S. Forest Service Management

## Planning- General Process Flow



 = AGFD Input Opportunity

- 1 It is permissible for AGFD to be on the IDT team and/or obtain Cooperating Agency status. IDT/Cooperating Agency status may be initiated throughout the process.
  - 2 AGFD responds to NOI with preliminary scoping comments.
  - 3 AGFD submits formal comment letter.
  - 4 AGFD may file objection (Note change: new planning rule 30 day objection period, prior rule 90 day appeal process).
- \* Land and Resource Management Plan (LRMP)/Travel Management Plan (TMP)

<b>Forest</b>	<b>Status</b>	<b>Next Step</b>	<b>Projected Completion (NEPA Documents)</b>
<b>Apache Sitgreaves</b>	<p>Draft Environmental Impact Statement (EIS) for TMP &amp; LRMP released Oct. 2010. Willow Fire required reassessment.</p>	<p>Draft EIS (LRMP &amp;TMP) 90 day review end of 2012</p>	<p>Final EIS (LRMP &amp; TMP) Summer 2013</p>
Issues:	<p>Motorized Big Game Retrieval (MBGR) in preferred Alt B of TMP allows 1mile from road for elk, mule deer &amp; bear. 658 miles of corridors for dispersed camping 300 ft off established roads.</p>		
<b>Cocoonino</b>	<p>TMP signed Sept 2011, AGFD MBGR appeal denied; Draft EIS (LRMP) ready. Motor Vehicle Dispersed camping 300 ft from designated roads, else 30 ft. MBGR for elk only. 1 mile from roads except GMUs 5A &amp; 5B.</p>	<p>Draft EIS (LRMP) currently out for public</p>	<p>Final EIS (LRMP) 11/20/2012</p>
Issues:			
<b>Coronado</b>	<p>Working Draft LRMP out Aug 2011.</p>	<p>Public LRMP comment 11/2012</p>	<p>Final EIS (LRMP) end of 2013</p>
Issues:	<p>TMP in process. Motor Vehicle Use Maps (MVUM) show access through roads that have locked gates. Maps not enforceable.</p>	<p>TMP Working Draft</p>	<p>Final TMP end of 2013, early 2014</p>
<b>Kaibab</b>	<p>Comment period on Draft EIS (LRMP) complete.</p>	<p>Review comments \ revise EIS (LRMP)</p>	<p>Final EIS (LRMP) End of 2012</p>
Issues:	<p>Tusayan &amp; Williams TMP in implementation. MVUMs available. North Kaibab TMP signature pending Tusayan &amp; Williams TMP: MBGR 1 mile from road for elk in designated areas. Dispersed camping allowed in camping corridors, or 30 feet from road.</p>	<p>Monitoring for Tusayan &amp; Williams, Implementation for North Kaibab.</p>	<p>Ongoing Monitoring for Tusayan and Williams. North Kaibab implementation complete by end of 2012.</p>

<b>Forest</b>	<b>Status</b>	<b>Next Step</b>	<b>Projected Next Step Completion</b>
<b>Prescott</b>	Final draft EIS (LRMP) release 8/13/12. MVUMs available.	LRMP (EIS) out for public comment	Comments due Nov. 23, 2012. Final EIS (LRMP) anticipated Summer 2013.
<b>Issues:</b>	Current draft advocates MBGR: Elk within 1 mile of designated open road		
<b>Tonto</b>	TMP Environmental Assessment (EA) released Jan 2012; LRMP began 2006. Negotiating to reinstate due to rule change.	Reinitiate and prepare for public comment	4-6 years to completion of LRMP
<b>Issues:</b>	MBGR: current Payson and Pleasane Valley districts allow bear, elk and mule deer. Other districts do not allow cross country for MBGR. Alternative 2 allows elk and bear, 200 yards from road.		
<b>New Framework (2012 Forest Planning Rule)</b>	Assessment (scoping)		
	Development/Revision/Amendment		
	Monitoring		



THE STATE OF ARIZONA  
**GAME AND FISH DEPARTMENT**

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August 22, 2012

Bureau of Land Management  
ATTN: Mr. Adrian Garcia  
New Mexico State Office  
SunZia Southwest Transmission Project  
P.O. Box 27115  
Santa Fe, NM 87502-0115

**Re: Comments on the Draft Environmental Impact Statement (DEIS) for the SunZia Transmission Line**

Dear Mr. Garcia:

The Arizona Game and Fish Department (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the SunZia Transmission Line and provides the following comments for your consideration.

Arizona Game and Fish Commission Authority

Missing from the DEIS is reference to the Arizona Game and Fish Commission's (Commission) authority over take of wildlife via Arizona Revised Statutes (ARS) Title 17 and Arizona Administrative Code (AAC) Rules Promulgated under Title 17. The Commission has public trust responsibility for wildlife within the state of Arizona irrespective of landownership, excepting those wildlife existing on American Indian trust-status lands.

ARS 17-102 defines the Commission's trust responsibility: "Wildlife, both resident and migratory, native or introduced, found in this state, except fish and bullfrogs impounded in private ponds or tanks or wildlife and birds reared or held in captivity under permit or license from the Commission, are property of the state and may be taken at such times, in such places, in such manner and with such devices *as provided by law or rule of the Commission*" (emphasis added).

ARS 17-101.18 defines take as "pursuing, shooting, hunting, fishing, trapping, killing, capturing, snaring or netting wildlife or the placing or using of any net or other device or trap in a manner that may result in the capturing or killing of wildlife." ARS 17-309 further prohibits the take of wildlife except as authorized under Title 17 or by Commission order.

ARS 17-236 prohibits the taking of injury of any bird or harassment of any bird upon its nest, or the removal of the nests or eggs of any bird, except as may occur in normal horticultural and agricultural practices and as authorized by Commission order.

The Department is directed by the Arizona Game and Fish Commission (Commission) to seek compensation at a 100% level, when feasible, for actual or potential habitat losses resulting from land and water projects. Of particular concern to the Commission are potential impacts to special category species and/or economically important wildlife species as well as issues which reflect the value, quantity, and quality of habitats which may be impacted by proposed projects.

The SunZia Transmission Line Project has the potential to take wildlife and temporarily and/or permanently degrade wildlife habitat including interruption of migratory pathways and fragmentation of wildlife habitat. As such, the Department believes that that a mitigation plan can be developed that compensates for actual or potential wildlife and habitat losses to 100% of pre-project levels. This plan can be memorialized through a Collaborative Conservation Agreement (CCA).

The DEIS does not adequately address mitigation for impacts to biological resources. Although "Standard Mitigation Measures" and "Selective Mitigation Measures" are proposed, they do not provide for any mitigation or compensation of residual impacts. The Department believes development of a Cooperative Conservation Agreement between BLM, SunZia, Arizona State Land Department, and Arizona Game and Fish Department is an essential component of ensuring adequate mitigation for residual impacts posed by the construction and operation of the SunZia transmission line project.

The Council on Environmental Quality (CEQ) issued a memo dated January 14, 2011 providing final guidance on the appropriate use of mitigation and monitoring under NEPA. This guidance emphasizes that agencies should adhere to mitigation commitments made as part of their environmental analysis, monitor their implementation, and monitor the effectiveness of that mitigation. Adaptive management is an important component of this guidance. The Department is very interested in working with the BLM on developing appropriate mitigation and requests continued involvement with effectiveness monitoring and adaptive management as necessary.

Mitigation as defined in 40CFR 1508.20 includes:

- a) Avoiding the impact all together by not taking a certain action or parts of an action
- b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation
- c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
- d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- e) Compensating for the impact by replacing or providing substitute resources or environments

The CCA process has been used successfully for similar projects such as the Ruby Pipeline ([www.blm.gov/pgdata/etc/medialib/blm/nv/nepa/rubv\\_pipeline\\_project/rod/attachment\\_h.Par.13831.File.dat/Conservation.Agreement.Final.Executed.06.29.10.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/nv/nepa/rubv_pipeline_project/rod/attachment_h.Par.13831.File.dat/Conservation.Agreement.Final.Executed.06.29.10.pdf)). The CCA ensures that the mitigation and monitoring identified in the EIS will be achieved through funds and resources committed in the CCA. Therefore a CCA is integral to the Final EIS. It is important that the

project proponent be a signatory to the CCA, and that the CCA be a condition of any permit issued by the BLM.

#### Arizona Game and Fish GIS Analysis

The Department has developed a number of tools to categorize and map wildlife resource values on a statewide scale. These tools help to identify impacted wildlife resources and may help to prioritize alternative areas that have the least impact on those resources. The Department's Species and Habitat Conservation Guide (SHCG) is intended to identify areas of wildlife conservation potential in Arizona at a landscape/statewide scale, ultimately guiding the Department's strategic wildlife goals and objectives. The Department considered five indicators of wildlife conservation value in modeling conservation potential across the state. Each of those indicators, or sub models, was developed as a separate layer that can be used independent of the SHCG model. The sub models were based upon the following:

- The importance of the landscape in maintaining biodiversity - represented by the Species of Greatest Conservation Need (SGCN)
- The economic importance of the landscape to the Department and the community – represented by the Species of Economic and Recreational Importance. (SERI)
- The economic importance of the water bodies and aquatic systems to the Department and the community - represented by sportfish
- Large areas of relatively intact habitats - represented by unfragmented areas
- The importance of riparian habitat to wildlife – represented by riparian habitat.

HabiMap™ Arizona is the public website where these tools can be viewed. Within HabiMap™ Arizona, one can view the SHCG, as well as models depicting the most valuable areas for the other sub models. Several other data layers are available as well, such as species distribution models, Arizona Wildlife Linkages, and Important Bird Areas. The Department also maintains the Heritage Data Management System (HDMS) which contains special category species data, and is in the process of modeling additional critical wildlife habitat linkage areas.

The Department utilized these tools to conduct a preliminary analysis of the potential for impacts of the proposed SunZia Transmission Line Project to determine the adequacy of the DEIS in identifying impacts and mitigation for those impacts. Starting at the Arizona/New Mexico State Line and ending at the terminus in Eloy, the Department evaluated the route alternatives using a 4-mile wide buffer, like that used for the biological resources evaluation in the DEIS.

#### SHCG

All layers comprising the SHCG (SGCN, SERI, Sportfish, Riparian, and Unfragmented Areas) were rescaled from 1- 10 and combined per the following equation:  $SHCG = 3.5 \times (SGCN + SERI + Sportfish) + Riparian + Unfragmented Areas$ . The resulting model was reclassified into 6 classes based on quantiles. A value of 6 indicates the highest conservation potential and a 1 indicates the lowest conservation potential.

A comparison of all the Group 4 SunZia route alternatives reveals that Route 4C3 contains the least amount of highest conservation potential areas (value 6). In contrast, Routes 4C2a, 4C2b,

and 4C1 have the greatest amounts of highest conservation potential areas (values 5 and 6). The table below presents the percentages of each route's 4-mile buffer within each SHCG class. Note that route 4C3 contains the greatest percentage of the lowest values for conservation potential (value 1=5%, value 2=5%, value 3=14%) in comparison to all the other routes. This is expected because much of the route is through urbanized Tucson.

Conservation Potential	SunZia Group 4 Alternative Routes (SHCG %)							
	4A	4B	4C1	4C2	4C2a	4C2b	4C2c	4C3
1	2	2	2	2	2	2	2	5
2	3	3	3	4	3	3	4	5
3	5	5	4	6	4	4	6	14
4	6	4	2	2	2	2	2	9
5	38	27	22	27	23	23	27	27
6	46	58	67	58	66	67	58	40

**SGCN**

This model represents a richness index for the Species of Greatest Conservation Need (SGCN) as defined in Arizona's State Wildlife Action Plan (SWAP). The model includes the number of Tier 1a and Tier 1b species (classified by vulnerability scores from the SWAP) according to the following formula:  $SGCN\ Score = (Tier\ 1a \times 2) + Tier1b$

Resulting scores were rescaled from 1 - 10. Higher model scores indicate the potential for greater species richness in any area. A full description of the model can be found in Arizona's State Wildlife Action Plan ([http://www.azgfd.gov/w\\_c/cwvcs\\_downloads.shtml](http://www.azgfd.gov/w_c/cwvcs_downloads.shtml)). Descriptions of the models and metadata for each layer are available on the HabiMap™ Arizona website (<http://www.habimap.org>).

Conservation Potential	SunZia Group 4 Alternative Routes (SGCN %)							
	4A	4B	4C1	4C2	4C2a	4C2b	4C2c	4C3
1	1	1	1	1	1	1	1	3
2	1	1	1	1	1	1	1	1
3	7	7	5	9	5	5	9	10
4	11	10	7	7	7	6	7	13
5	4	4	4	4	4	4	4	5
6	9	8	9	9	9	9	8	7
7	8	7	9	12	8	8	11	12
8	5	6	9	8	9	9	8	12
9	25	14	17	14	17	18	14	6
10	29	42	38	34	38	39	36	31

SERI

This category represents 13 of Arizona's game species. The distribution of game species influences important aspects of wildlife related recreation. When evaluating the effects of changes to this distribution, the Department considers three aspects: demand for the game resource, revenue generated by the game resource for communities in Arizona, and the revenue generated by the game resource for the Department.

Demand for the game resource provides an indication of how important a particular piece of habitat is to the hunters of Arizona for a given species and is represented by the number of first choice applicants divided by the available number of permits for that species. Areas with higher demand are likely to be more important to hunters than areas with lower demand. Revenue generated by the game resource for communities in Arizona provides an indication of the economic importance of a particular area and is represented by the measured hunter days multiplied by the value of a hunter day in purchases of goods and commodities (e.g., gas, food, motel). Areas with high value are used more frequently and provide a greater contribution to Arizona's economy than do areas with lower values.

Finally, the license and tag revenue generated by the game resource provides an indication of how critical an area is economically to the Department. Together, the economic and recreational importance of game species to hunters, the community, and the Department provide a realistic view of the importance of game habitat.

Conservation Potential	SunZia Group 4 Alternative Routes (SERI %)							
	4A	4B	4C1	4C2	4C2a	4C2b	4C2c	4C3
1	3	3	3	3	3	2	2	4
2	1	0	0	0	0	0	0	1
3	1	1	1	2	1	1	2	4
4	9	8	2	3	3	3	3	6
5	20	17	10	11	10	9	11	25
6	3	3	4	4	5	5	5	2
7	5	11	10	15	15	17	16	8
8	6	11	29	24	26	29	27	24
9	19	13	16	16	11	9	13	19
10	32	34	26	21	26	25	20	7

Unfragmented Areas

The Unfragmented Areas model is based on the existence of large, contiguous land masses that aren't fragmented by barriers, the diversity of vegetation types within those land masses, and the importance of those areas to the overall availability of any particular vegetation type within the state. The results were reclassified from 1 - 10 using ArcMap. Higher values indicate higher conservation potential with 10 being the highest and 1 being the lowest.

The majority of the entire SunZia project (all alternative routes) in Arizona goes through some of the least fragmented areas in the state, and certainly in the southeastern part of the state. Further discussion of the importance of large, intact habitat blocks is presented in subsequent sections of this letter.

Conservation Potential	SunZia Group 4 Alternative Routes (Unfragmented Areas %)							
	4A	4B	4C1	4C2	4C2a	4C2b	4C2c	4C3
1	16	14	11	11	12	11	11	30
2	6	8	4	1	4	3	1	6
3	12	12	12	26	12	11	25	23
4	7	3	3	3	3	3	3	3
5	0	0	0	0	0	0	0	0
6	16	16	16	8	16	15	7	0
7	0	0	2	1	1	1	1	3
8	0	0	0	0	0	0	0	0
9	41	41	36	31	33	35	33	25
10	3	6	17	19	20	20	19	11

Ranking of Routes

In our analysis of information presented in the DEIS, we ranked each route for the following categories (presented in DEIS Table 2-12, Alternative Route Comparison):

- Relative percentage of the route paralleling existing transmission lines and pipelines
- Total acres of temporary disturbance
- Total acres of permanent disturbance
- Acres of permanent disturbance per mile of route

Route	Existing Transmission lines	Existing Pipelines	Temporary Disturbance-acres	Permanent Disturbance-acres	Permanent Disturbance-acres/mile	Rank Across all DEIS categories
4A			1	1		
4B						
4C1						
4C2						
4C2a		1				1
4C2b						
4C2c						
4C3	1				1	

*Note: A ranking value of 1 indicates the route with the most miles paralleling existing infrastructure, least temporary/permanent acreage disturbed, or lowest acres/mile of permanent disturbance.*

We also ranked each route based upon its relative percentages of SHCG, SGCN, SERI, and Unfragmented Areas. Although SGCN, SERI, and Unfragmented Areas are three of the five categories that compose SHCG, we ranked those categories separately to determine whether there was much difference by route across those specific categories (there was not).

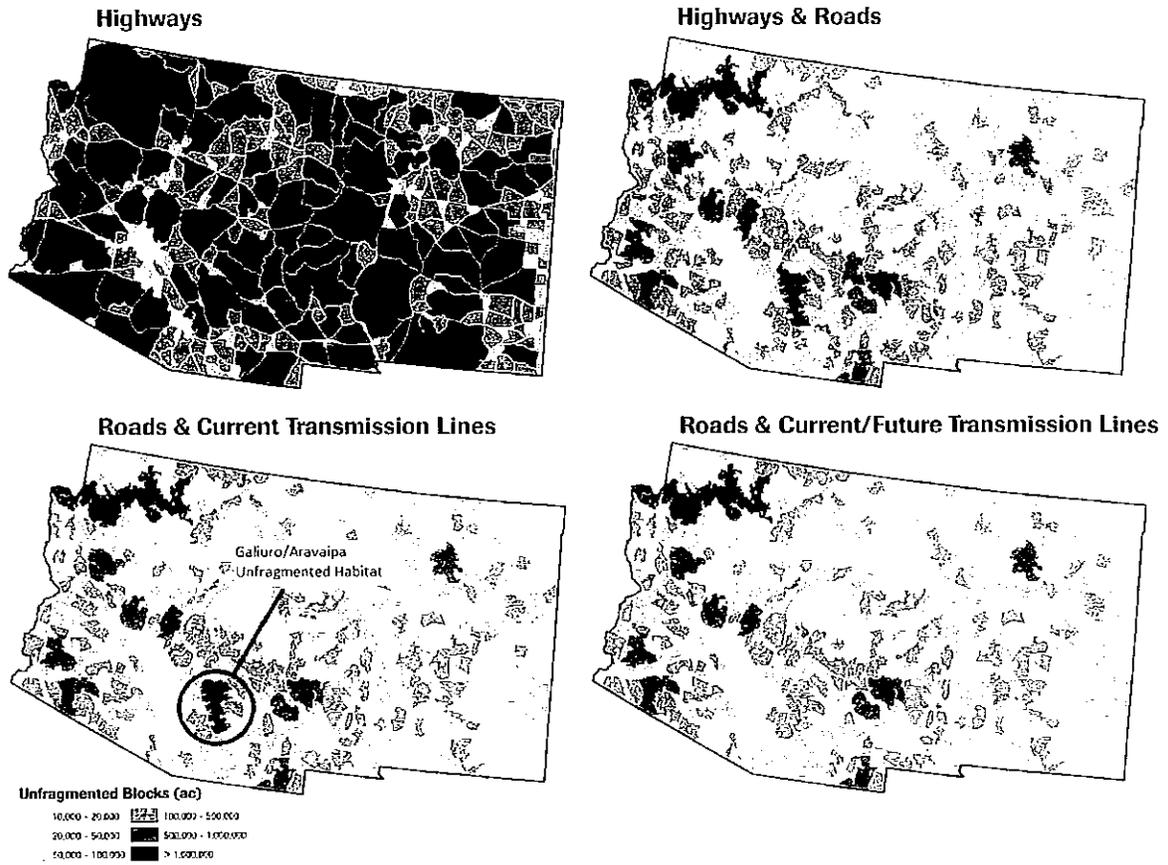
Route	SHCG	SGCN	SERI	Unfragmented Areas
4A				
4B				
4C1				
4C2				
4C2a				
4C2b				
4C2c				
4C3	1	1	1	1

*Note: A ranking value of 1 indicates the route with the least amount of high conservation potential habitat*

Due to the excessive lengths of the alternative routes and the complexity of the HabiMap™ Arizona data layers, comparison of the different routes is in turn a complex undertaking. For example, route 4C3 clearly contains a multitude of areas of low conservation potential due to the previous long-standing disturbance associated with the urbanized Tucson area. However, across the entire course of the route, areas of high conservation potential exist. Therefore, it is important to emphasize that consideration must be given to habitat features not captured in the HabiMap™ Arizona model. A prime example of this is the Aravaipa Canyon area, discussed in greater detail below.

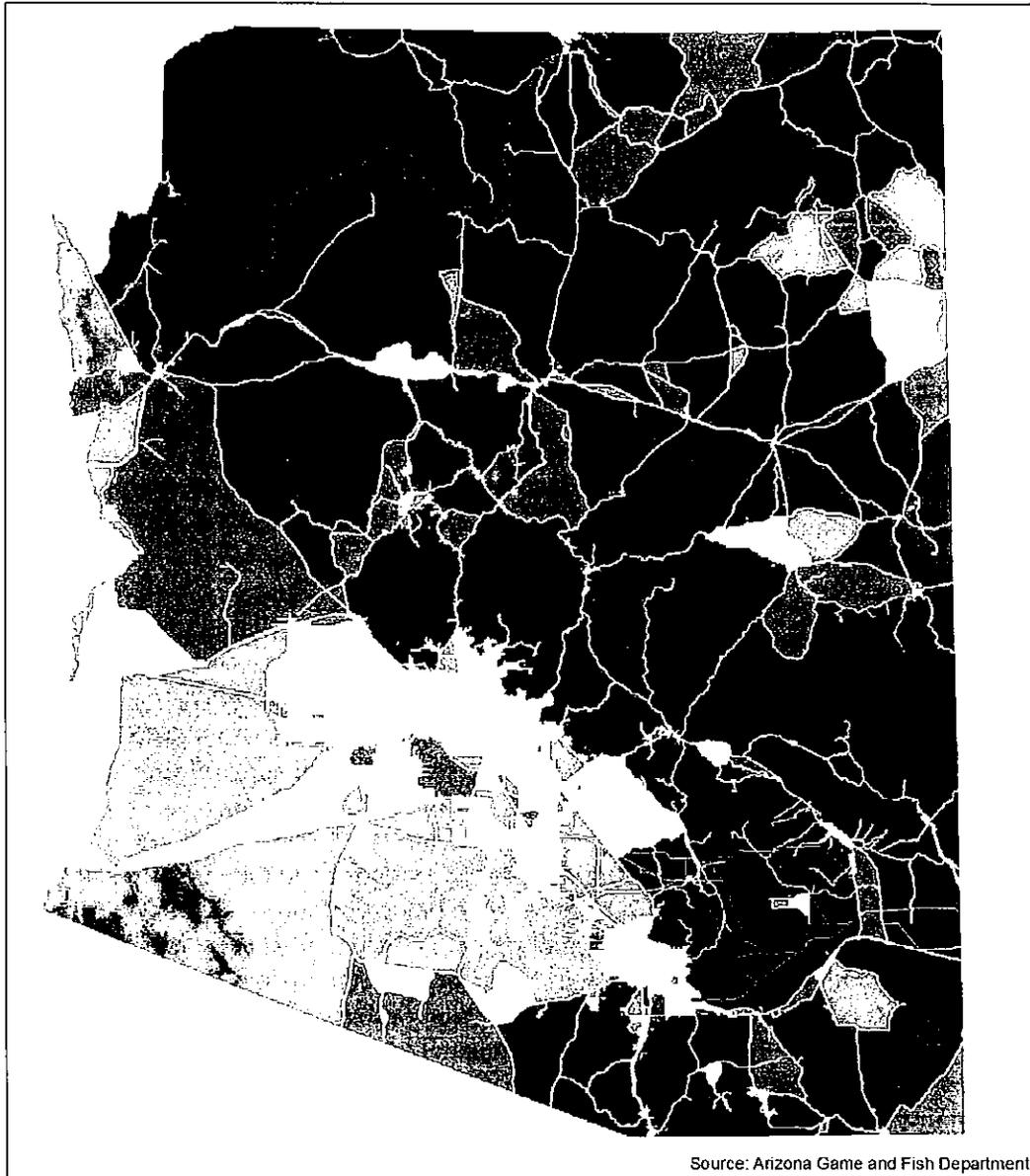
Aravaipa – Galiuro Wildlife Linkage (Link C170)

Page 4-62, Section 4.6.3.1 – the DEIS defines significant impacts to biological resources from construction or operation of the proposed action as including, among other things, “fragmentation resulting from the addition of new infrastructure to large, currently intact blocks of habitat”. Construction and/or operation of the project along either subroute 4A or 4B would therefore result in significant impacts to biological resources. Portions of both routes would go between the Aravaipa Canyon and Galiuro Wilderness Areas where no infrastructure currently exists. A portion of subroute 4B is also located in the Sulphur Springs Valley, another large, intact habitat block. The Nature Conservancy (TNC) has completed analysis (see attached) which demonstrates that this block of unfragmented habitat including the Galiuro, Aravaipa Canyon, and Santa Theresa Wilderness Areas, comprises the second largest remaining unfragmentated habitat block in the American southwest: only the Grand Canyon is larger. Included for reference with this letter are TNC’s cumulative effects analysis and graphic depiction (below) of the impact of fragmentation across Arizona and New Mexico due to roads and transmission lines. The Department’s own unfragmented habitat model, which assesses Arizona only and used slightly different inputs, also indicates that this block is one of the largest remaining unfragmented areas in the state of Arizona.



(Graphic Courtesy of The Nature Conservancy)

## Unfragmented Areas in Arizona



Lightest blue indicates highest degree of fragmentation  
Darkest blue indicates lowest degree of fragmentation  
Yellow line indicates SunZia Transmission Line Alternative Routes

Page 4-64, Section 4.6.4.2 – impact levels are categorized as low, low-moderate, moderate, moderate-high, and high. High impacts are those which “may include substantial, permanent fragmentation and loss of function, and may involve substantial loss of acreage of the community type in the region. This level of loss would affect not only the vegetation, but the wildlife that is dependent on the plant community for sustenance, habitat, or as part of a movement corridor” (emphasis added).

Link C170 would bisect an important wildlife movement corridor between Aravaipa, the Santa Theresa Mountains, and the Galiuro Mountains. This area is a significant travel corridor between the Redfield Canyon and Aravaipa Canyon bighorn sheep metapopulations. The Department has ear tagged and collared sheep in both places and documented movement between these two areas. These two sub-populations are surveyed together and managed as one unit. Disturbance in the area south of Aravaipa Canyon (Link C170) that would limit sheep movements through this corridor would fragment two very important gene pools. A resident of the Aravaipa Canyon area and retired population geneticist recently published a paper that stressed the importance of keeping Aravaipa Canyon sheep genetically connected to any other population for its own health (Hedrick 2011). This sheep population is special to the Department and our constituents. It is the first sheep population the Department recovered with a translocation from elsewhere and has gained world-wide fame as one of the best trophy desert bighorn sheep destinations in the world. In addition to its importance for bighorn sheep, this area also provides good habitat for other game species such as whitetail deer, bear, and javelina.

Finally, this is an area of habitat untouched by roads, utilities, or other similar disturbance; a remote, extremely rugged landscape with minimal human presence, where access is possible primarily by foot or by horseback. The introduction of a disturbance such as the SunZia Transmission Line Project into one of the largest unfragmented blocks of wildlife habitat in the Southwest will forever transform this area and diminish its unique value to wildlife and people.

#### Route 4B

This area is important habitat for a small and declining pronghorn antelope population. Primary threats to pronghorn in this area are anthropogenic habitat modification through development and agriculture. With the increased urban development along Fort Grant Road north of Willcox, the small stretch of undeveloped land south of Bonita, has become the major corridor for pronghorn along Fort Grant Road. The Sulphur Springs Valley pronghorn face increasing habitat fragmentation and movement barriers. Preserving, enhancing, and restoring movement corridors for pronghorn in Game Management Units (GMU's) 31 and 32 (containing the Pinaleno and Galiuro Mountains, respectively), has become a special concern for the Department. Links C121, 130a, and 130b are of particular concern as they could further diminish genetic exchange between the subpopulations in these two GMU's. Depending upon the extent of ground disturbance created by the project, fencing, increased invasive plants, and impacts on fire and vegetation management, this route could negatively impact the pronghorn throughout the Sulphur Springs Valley. If any fences are constructed along access roads, they should be in accordance with Arizona Game and Fish Department's Wildlife Compatible Fencing Guidelines.

Section 4.6.4.4, under the heading *Aquatic, Large wading, and Shore Birds*, please add text regarding the large flocks of wintering waterfowl, including sandhill cranes, that fly back and

forth between the Sulphur Springs Valley, Willcox Playa, and Whitewater Draw areas. Links C110, C121, C90, C130a, and possibly B150a and B150b cross very important sandhill crane flyways to and from roosting and feeding areas. Subroutes 3A1 (link B150a near San Simon, and possibly B150b), 4B (links C90 and C130a), and the eastern portions (through the Sulphur Springs Valley) of the 4C routes (links C90, C110, and C121) all pose collision hazards for cranes and other wintering waterfowl using agricultural fields in the area. Utility lines are a documented source of mortality for cranes due to their inability to quickly maneuver to avoid unseen obstructions during low visibility events (*i.e.*, fog, storms, or nighttime migration). Utility lines through this area would cause outright mortality and could alter the feeding patterns and flight patterns of the birds in this population. This is a critical winter roosting area and has significant benefit to the local economy. The Wings Over Willcox Birding and Nature Festival attracts about a thousand people to the area over a single weekend each January, with a steady influx of additional visitors throughout the season and beyond.

#### Residual Impacts

Residual impacts are mentioned on page 4-63, but do not appear to be addressed anywhere else with regard to biological resources. Chapter 4 presents in tabular format number of miles of residual impacts for earth and water resources. Please add a similar table quantifying residual impacts to biological resources. Also, please include a statement to the effect that residual impacts will be further identified and mutually agreed upon mitigation and/or compensation will be determined in consultation with the Arizona Game and Fish Department via a Cooperative Conservation Agreement, and will be included in the Plan of Development.

#### Impacts

Section 4.6.4.2 is titled *Impacts and Mitigation Measures for Vegetation*, yet there is no discussion of the impacts, only descriptions of impact levels and proposed mitigation measures. Without an actual discussion of impacts, adequate mitigation cannot be determined.

Section 4.6.4.4 *Impacts and Mitigation Measures for General Wildlife Categories and Special Status Species* does not define or discuss impact levels for “general wildlife”. Please add appropriate text so the content of this section accurately reflects the title.

#### Other Projects

Of highest concern to the Department is the potential for the SunZia Transmission line to facilitate cumulative effects which would cause further fragmentation of the Galiuro/Aravaipa wildlands through co-location of proposed infrastructure such as the Interstate 10 Bypass which identified this route as a viable solution to an identified problem and need. The Arizona Game and Fish Commission passed a resolution in opposition to all proposed routes for the I-10 Bypass proposal.

Clearly in the planning of future development projects, planners, designers, and analysts generally look for existing infrastructure or otherwise disturbed areas as a first choice in siting new projects. Therefore, if SunZia is granted a ROW permit through currently unfragmented habitat in the Aravaipa/Galiuro wildlife linkage area, there is a very high probability that future project proponents, planners, and agencies would consider the SunZia transmission line for possible co-location of linear projects. In addition, existence of the transmission line may present

opportunities for new power generation facility connections (i.e., commercial scale solar energy generation facilities).

The Arizona Department of Transportation (ADOT) stated in their 2008 I-10 Bypass report that “As currently planned, I-10 will be inadequate to meet the long-term needs of the Interstate System and the Tucson Metropolitan Area.” Of the solutions proposed, ADOT concluded that “the long-term development of an alternative route to I-10 appears to be the best solution to the foregoing described issues. A preliminary assessment of several alternative routes was explored in the *I-10 Phoenix-Tucson Bypass Study*. Of the alternatives studied, “Route 4” (referred to as the “Western Corridor” in the *Southern Pinal-Northern Pima County Corridor Definition Study*) appears to offer the most potential.”

Several of the considered routes were very similar to several of the SunZia considered routes. The need for this I-10 Bypass remains; in 2008 ADOT identified the most practical route as one to the west of Tucson, however the Department believes that this route is non-viable due to the Tucson Mitigation Corridor which precludes development within its boundaries. If SunZia were granted a ROW permit for either subroutes 4A or 4B, ADOT may seriously consider an I-10 Bypass route through the unfragmented habitat between the Aravaipa Canyon and Galiuro Wilderness Areas. They have, in fact, stated that it would be no more technically infeasible than the existing Highway 87. If the SunZia Transmission Line has already bisected this area, co-location of future infrastructure is not only foreseeable, but will be inevitable absent a legal instrument preventing such co-location.

Because the I-10 Bypass study has already identified that this route is a viable alternative and that the bypass is necessary, the Department believes BLM must consider the bypass as a potential cumulative effect of the SunZia Transmission line under NEPA. Moreover, BLM must consider that the choice of this route for the SunZia line may significantly increase the attractiveness of this route for the I-10 Bypass.

#### Mitigation Corridor Needed

Clearly one of the largest concerns for the Department when considering large linear infrastructure projects are the fragmenting effects through large blocks of unfragmented habitat. The Tucson Mitigation Corridor was developed as mitigation for the CAP canal and has successfully prevented further degradation of that wildlife habitat linkage. The SunZia project will fragment many habitat blocks over the entire 500+ miles of the transmission line. One way to mitigate for this fragmentation would be to develop a mitigation corridor between the Galiuro and Aravaipa Wilderness Areas so that this area can no longer be easily threatened by such development.

#### Access Roads

Although there is mention of the possibility of using helicopters to construct the towers as a means of minimizing impacts in sensitive habitats, the DEIS does not provide a complete discussion of access needs for such areas. We recommend providing a complete description of all access needs for pre-construction activities (i.e., geotech surveys, environmental surveys), construction (i.e., equipment and drilling activities for boring anchor holes, concrete mixing and pouring, equipment access to each tower location and tensioning sites, etc.),

operation/maintenance/inspection/emergency repairs. The Department assumes that even with the use of helicopters for tower construction, the proponent would still require access roads to every tower location and tensioning site (and possibly others).

By far, Link C170 contains the longest continuous stretch of route alignment within the Arizona portion of the project with slopes greater than 35%, which therefore would necessitate the greatest amount of disturbance to build access roads. If BLM issues a ROW grant for any of the routes through the currently unfragmented habitat in the Aravaipa Canyon area (4A, 4B, 4C1), the Department requests that BLM consider a stipulation within the grant requiring that either a) the project be constructed without any newly constructed access roads, or b) once project construction is complete, the project owner completely restore all disturbed areas (except those requiring “permanent” disturbance, i.e., towers) to pre-disturbance conditions, and all subsequent activities related to operation of the line would be via roadless access. In the event of any emergency conditions requiring access that results in ground disturbance, restoration to pre-disturbance conditions would also be required.

#### NESC/NERC Vegetation Management Standards

Although the DEIS makes reference to vegetation management standards in several places, the information as presented is somewhat misleading. The NERC standards for Minimum Vegetation Clearance Distances (MVCD) refer to the minimum allowable distance between conductors and vegetation, not any specific vegetation height as implied by the DEIS. The Department recommends adding further clarification in this section, explaining what the 12-foot allowable vegetation height is based upon: if it is a calculation based on the typical tower height, maximum sag of the conductors, voltage of the line, and minimum separation between the conductor and the nearest vegetation, please state it as such. It is our understanding that a utility provider may choose to exceed the MVCD; some utilities choose to remove all vegetation above low shrub height. We would like to offer input in the development of the vegetation management plan for the project, as there may be opportunities for enhancement of wildlife habitat values while still maintaining acceptable safety and reliability standards for operation of the transmission line.

#### Golden Eagles

The Department conducted golden eagle surveys in southeastern Arizona in 2012. We recorded a number of eagle sightings and documented breeding eagles within 10 miles of the project area within the Santa Teresa, Pinaleño, Winchester, Dos Cabezas, and Little Dragoon Mountains. The Department recommends that construction in areas within one mile of occupied nests occur outside of the breeding season for golden eagles (August to December). In addition, we recommend ongoing coordination between the Department, BLM, SunZia, and any other relevant land managers to ensure appropriate eagle mitigation is included in the POD.

#### Plan of Development

The Department requests continued involvement in the drafting of the project Plan of Development (POD). Topics of particular interest to the Department are

- Full disclosure of maintenance/repair, operations, procedures, access routes and modes of transport for such activities. We are interested in discussing opportunities to avoid and minimize habitat impacts by employing techniques that are “softer on the land” such as

Mr. Adrian Garcia  
August 22, 2012  
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helicopter transport of drilling rigs and other equipment needed for construction, or other techniques that do not create as large an area of impact as conventional techniques regularly used in non-sensitive areas.

- Stipulations to ensure successful re-vegetation, erosion control, and plant relocation – some mechanism needs to be in place to ensure success (adaptive management, so if the planned methods don't achieve full success, something else is tried, until successful).
- Development of adequate mitigation and/or compensation for lost ecological resources (e.g., habitat loss and damage to wildlife resources).

Other Comments

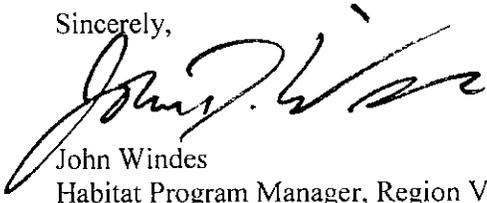
Appendix H: it would be more useful for comparing routes if the major points of impact level evaluation for the BLM preferred alternative were included in each resource table, rather than referring the reader back to Chapter 4.

Please quantify by route and alternative linkages, the acreages of both temporary and permanent impacts, by vegetation community.

As we have stated in previous letters, wherever possible, we strongly recommend siting projects along existing utility corridors, roadways, or other previously disturbed areas. Of all the alternative routes, 4C3 (Tucson) encompasses the greatest percentage of previously disturbed areas, parallels the greatest distance of existing transmission lines, contains the least amount of areas of highest conservation potential, and avoids fragmentation of Arizona's second greatest remaining area of intact, unfragmented habitat.

If you have any questions regarding this letter, please contact Ginger Ritter at (623) 236-7606 or Kristin Terpening at (520) 388-4447.

Sincerely,



John Windes  
Habitat Program Manager, Region V

JDW:kt

Attachments: AGFD Unfragmented Areas Map  
TNC Cumulative Effects Analysis and Graphic

cc: Kristin Terpening, Habitat Specialist, Region V  
Ginger Ritter, Project Evaluation Specialist, WMHB  
Raul Vega, Regional Supervisor, Region V

AGFD #M12-05242005

Mr. Adrian Garcia  
August 22, 2012  
Page 15

References

Hedrick, P.W. 2011. Rapid Decrease in Horn Size of Bighorn Sheep: Environmental Decline, Inbreeding Depression, or Evolutionary Response to Trophy Hunting? *Journal of Heredity* (November-December 2011) 102 (6): 770-781.

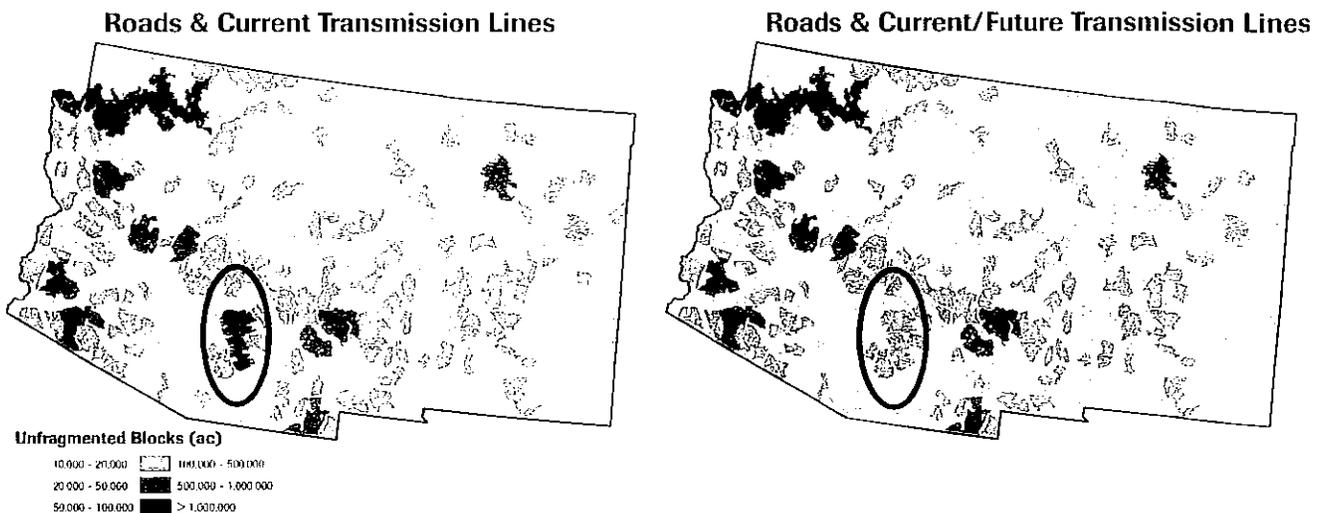
## Cumulative Effects Analysis for Proposed Sunzia Transmission Line

Rob Marshall, Dale Turner, and Dan Majka, The Nature Conservancy

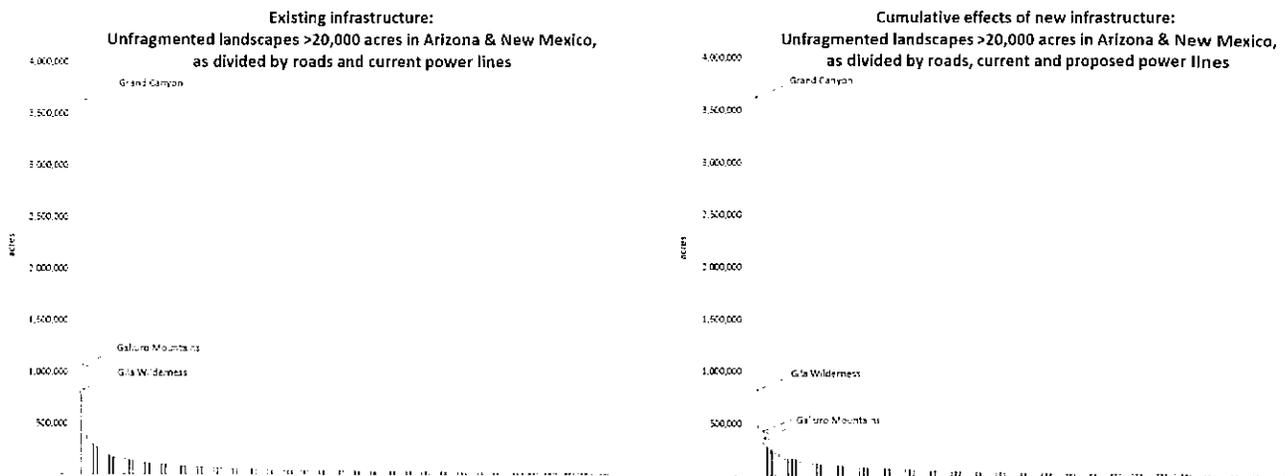
June 18, 2012

To evaluate cumulative effects associated with the proposed Sunzia transmission line we looked at the current status of habitat fragmentation across Arizona and New Mexico from roads and transmission lines. We then compared the current baseline condition to a future scenario that included the 20 transmission line proposals across Arizona and New Mexico currently in some phase of planning (see table at end). We did not consider pipelines in this analysis but note that pipelines similarly fragment habitat and would further amplify this type of analysis.

The graphic below compares the baseline condition to the future scenario. The largest remaining habitat blocks are indicated by progressively darker shades of green. The red polygon depicts the area encompassed by the Galiuro Mountains, Aravaipa Canyon, and Santa Teresa Mountains. The graphic to the right illustrates the change in size of this habitat block from the proposed Sunzia line.



The two graphics below plot the distribution of habitat patch sizes in acres across Arizona and New Mexico. All patches smaller than 20,000 acres were excluded from the analysis to make the size of the graphic more manageable. The left graphic illustrates how the current baseline condition is skewed considerably to the right, meaning the landscape of Arizona and New Mexico is comprised predominantly of small habitat fragments. This graphic also illustrates that outside of the Grand Canyon, there is no habitat block larger than the Galiuro-Aravaipa-Santa Teresa area. The graphic to the right illustrates the change in ordinal position and size of the Galiuro-Aravaipa-Santa Teresa area from siting Sunzia across the axis of this area.



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.

### Implications

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 animals from Aravaipa to supplement bighorn populations elsewhere in Arizona.

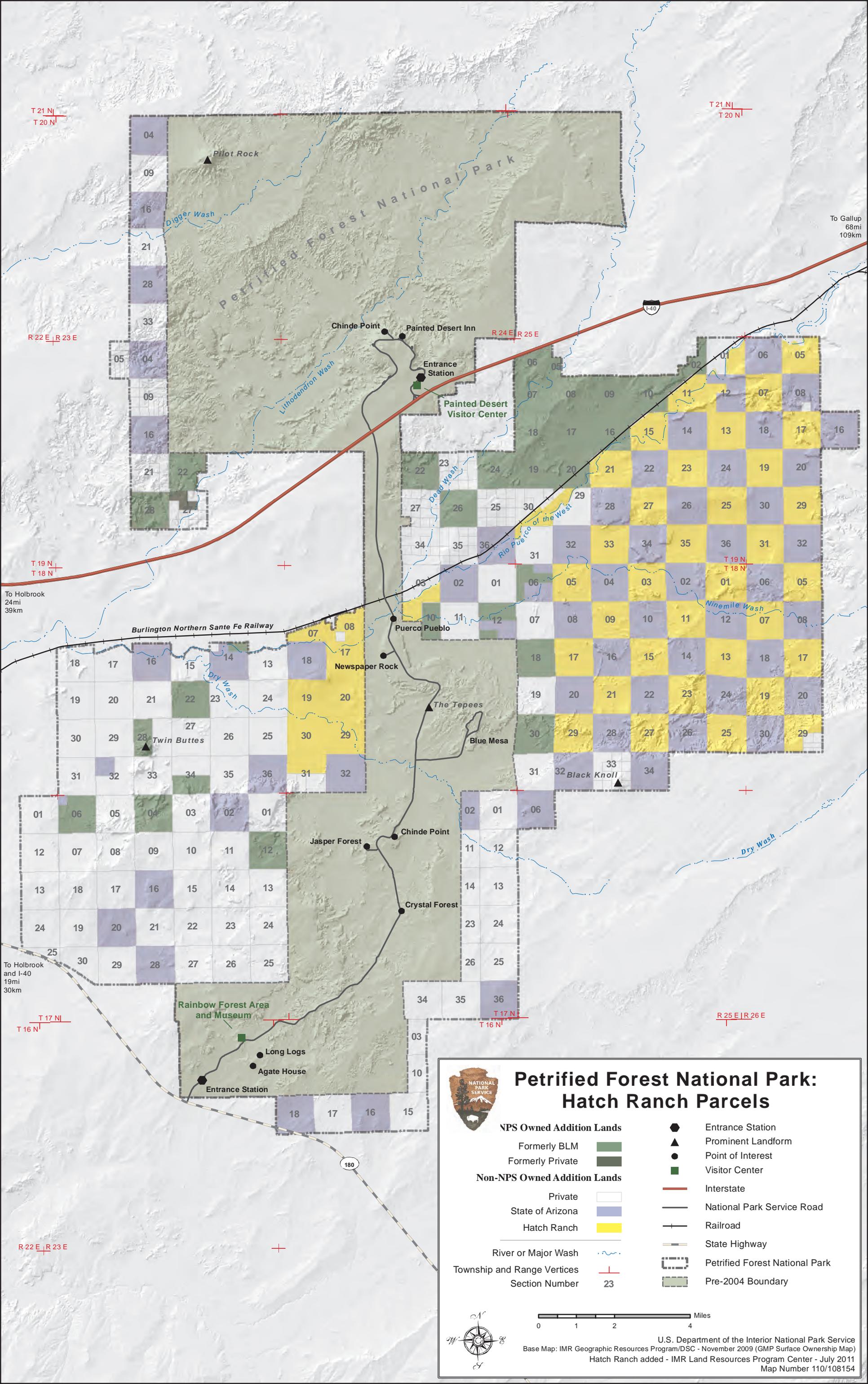
For over 30 years the Nature Conservancy, in cooperation with BLM, USFS, AZ State Land Department, and AZ Game and Fish Department, has been managing the Aravaipa tablelands and Muleshoe Ranch areas with prescribed and wildland fire. BLM’s Muleshoe Ranch and Aravaipa Ecosystem Management Plans both include habitat management objectives that call for the continued use of prescribed and naturally-occurring fire. When USFS’s Firescape planning is completed this management practice will be available throughout the Galiuros helping to ensure that the areas grasslands are not encroached by shrubs to the degree that would alter habitat for grassland species or movement corridors for wildlife such as bighorn sheep.

Existing transmission lines across the two-state area range in size from 46 kV to 500 kV. Direct and indirect effects will likely vary depending upon the size of the line, type of habitat the line traverses, soil types, and topography, among other things. However, the role of fire in managing grassland and forested habitats is rarely considered in the siting of transmission infrastructure. For example, BLM's DEIS for Sunzia addresses fire suppression concerns but omits mention of fire as a habitat management tool in the area.

Because of the significant liabilities transmission providers face if they incur outages due to vegetation management, placement of line across the Galiuro-Aravaipa-Santa Teresa area would severely limit, if not preclude entirely, the use of fire as a management tool to maintain sustainable wildlife populations. Along with fragmentation effects of transmission lines, the exclusion of fire from habitats historically maintained by fire will result in habitat loss for species dependent upon grassland and forested habitats. Moreover, limiting the use of fire as a management tool increases the chance of catastrophic wildfire in an area with few roads and limited access for fire suppression activities, which would introduce a constant threat for any new infrastructure. Use of fire is the only practical tool to manage habitat for an area of this size. It is the lack of extensive infrastructure in this area that has made habitat management using fire practical, something that has become increasingly difficult to accomplish elsewhere as urban, suburban, and exurban development encroach into prime wildlife habitat throughout the state's forests and grasslands.

#### Proposed Transmission Lines in Arizona and New Mexico in Some Phase of Planning

1. Navajo Transmission Project (500kV)
2. PNM Tap to Rio Puerco (345 kV)
3. PNM West Mesa to San Juan (345 kV)
4. Lucky Corridor (500 kV)
5. High Plains Express (500 kV)
6. Roosevelt to Curry (138 kV)
7. Sunzia SW (500 kV)
8. Southline Transmission Afton to Apache (345 kV)
9. TEP Greenlee to Springerville (345 kV)
10. TEP Vail to Winchester ((345 kV)
11. TEP Nogales to Gateway (345 kV)
12. TEP Nogales to Tortolita (345 kV)
13. TEP Nogales to Westwing (345 kV)
14. Palo Verde to Saguaro (500 kV)
15. Pinal Central to Pinal West (500 kV)
16. APS TS3 to Liberty (230 kV)
17. Morgan Sun Valley Project (500 kV)
18. Delaney to Sun Valley (500 kV)
19. Palo Verde Hub to North Gila (500 kV)
20. APS Mesquite Generating Station to North Gila (230 kV)



## Petrified Forest National Park: Hatch Ranch Parcels

<p><b>NPS Owned Addition Lands</b></p> <ul style="list-style-type: none"> <li>Formerly BLM <span style="display: inline-block; width: 15px; height: 10px; background-color: #4F81BD; border: 1px solid black; margin-right: 5px;"></span></li> <li>Formerly Private <span style="display: inline-block; width: 15px; height: 10px; background-color: #2E7D32; border: 1px solid black; margin-right: 5px;"></span></li> </ul> <p><b>Non-NPS Owned Addition Lands</b></p> <ul style="list-style-type: none"> <li>Private <span style="display: inline-block; width: 15px; height: 10px; background-color: #FFFFFF; border: 1px solid black; margin-right: 5px;"></span></li> <li>State of Arizona <span style="display: inline-block; width: 15px; height: 10px; background-color: #4F81BD; border: 1px solid black; margin-right: 5px;"></span></li> <li>Hatch Ranch <span style="display: inline-block; width: 15px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span></li> </ul> <p>River or Major Wash <span style="display: inline-block; width: 15px; border-bottom: 1px dashed blue; margin-right: 5px;"></span></p> <p>Township and Range Vertices <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid red; margin-right: 5px;"></span></p> <p>Section Number <b>23</b></p>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; border-radius: 50%; margin-right: 5px;"></span> Entrance Station</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; border: 1px solid black; margin-right: 5px;"></span> Prominent Landform</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; border: 1px solid black; margin-right: 5px;"></span> Point of Interest</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: green; border: 1px solid black; margin-right: 5px;"></span> Visitor Center</li> <li><span style="display: inline-block; width: 1px; height: 10px; background-color: red; margin-right: 5px;"></span> Interstate</li> <li><span style="display: inline-block; width: 1px; height: 10px; background-color: black; margin-right: 5px;"></span> National Park Service Road</li> <li><span style="display: inline-block; width: 1px; height: 10px; border-bottom: 1px dashed black; margin-right: 5px;"></span> Railroad</li> <li><span style="display: inline-block; width: 1px; height: 10px; border-bottom: 1px dashed gray; margin-right: 5px;"></span> State Highway</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px dashed black; margin-right: 5px;"></span> Petrified Forest National Park</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid gray; margin-right: 5px;"></span> Pre-2004 Boundary</li> </ul>
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0 1 2 4 Miles

U.S. Department of the Interior National Park Service  
 Base Map: IMR Geographic Resources Program/DSC - November 2009 (GMP Surface Ownership Map)  
 Hatch Ranch added - IMR Land Resources Program Center - July 2011  
 Map Number 110/108154