Osage Producers Association
P.O. Box 635
Hominy, OK 74035

January 16, 2020

Mr. Mosby Halterman
Regional Environmental Scientist
Eastern Oklahoma Region, BIA
P.O. Box 8002
Muskogee, OK 74402-8002

Sent via USPS and email to osagecountyoilgaseis@bia.gov

***Subject: EIS No. 20190274, Draft, BIA, OK,* Osage County Oil and Gas Draft Environmental Impact Statement**

Dear Mr. Halterman;

The Osage Producers Association was organized by producers and service industry supporting the drilling for and production of Osage County, OK oil and gas. The organization communicates to the membership on various subjects related to oil and production in Osage County. In the event of proposed changes constituting significant impairments to the production of oil and gas production in Osage County the OPA is the principal source of non-Federal analysis and comment for the producers, purchasers, service and beneficiaries of continued economic exploitation of the mineral resources, including hydrocarbons, helium and rare earth elements, of the Osage Mineral Estate.

The history of oil and gas production in Osage County is an encapsulated history of the oil and gas industry. Many of the Major oil companies can trace their beginning to Osage County. Many, including Philips, Sinclair, Gulf and Getty were involved pre-statehood. Modern exploration for hydrocarbons began in 1922 with publication by the United States Geological Society of Bulletin 686, Structure and Oil and Gas Resources of the Osage Reservation, Oklahoma (https://pubs.er.usgs.gov/publication/b686). The purpose of Bulletin 686 is important to note for the reader. "Responding to the imperative need for increasing to the utmost the petroleum supply of the United States, the Geological Survey, since we entered the war [WW I], has largely concentrated its investigations of oil fields in the most promising undeveloped territory, such as Wyoming and the midcontinent-Texas region, and especially in the Osage Reservation in Oklahoma.".

While the great discoveries of conventional reservoirs are in the past, as Bulletin 686 approaches a centennial anniversary of publication, the documents relevance is significant today. The dozens of plates illustrating the surface and near surface geological structure provide guidance on hydrocarbon migration and accumulation and give evidence where future discoveries can be made. The configuration of mapped domes, anticlines fractures, faults and lineaments are as relevant today to mineral exploitation as they were in 1922 and even more so when coupled with

modern 2D and 3D seismic and aerial electromagnetic surveys, of the type currently being undertaken by the United States Geological Survey.

Any regulation being considered which limit in any way exploitation of the Osage Mineral Estate should take USGS Bulletin 686 into consideration.

The Environmental Impact Statement is of great importance to the membership of the OPA.

We submit the following comments on the Draft EIS:

Alternatives 3 and 4

The no new drilling provisions of Alternatives 3 and 4 significantly reduce the recoverable oil and gas resources of the Osage mineral estate.

The Osage mineral estate was established by federal law, the 1906 Osage Allotment Act and Amendments, it can not be changed by an Environmental Impact Statement. Therefore, Alternatives 3 and 4 must be eliminated in the final version of the EIS.

In addition, the no new drilling areas include many existing oil and gas leases. On all of those leases the lessee has the right to drill additional wells. Additional wells can be required to maintain production and are a valued future opportunity.

A no new drilling limitation immediately reduces the value of existing leases. (Even the threat of "no new drilling" has diminished the value of Osage oil and gas assets.) The source of funds for compensation for finical losses of lessees is not described in the Draft EIS.

Alternatives 3 and 4 must be eliminated.

Permit processing efficiently

Our members require the Osage Agency to make significant improvements in the time required for processing permit applications. A major contributor to the time required has been the practice of applicant funded draft Environmental Assessments followed by review of those EAs by the Agency staff.

It has been inferred that applicant funded EAs prepared for the Agency's use in some way expedite the process and has been accepted by applicants. However, there is no provision in the Council on Environmental Quality rules that obligate a permit applicant to fund preparation of an EA. Furthermore, an applicant that does not wish to fund EA preparation is entitled to efficient permit processing, to even imply otherwise is extorsion.

To improve efficiency, we recommend the EIS include a sample EA for a typical well. This can be created from a completed EA or a hypothetical well.

The BIA should then identify the unique applicant information required for the EA. Required information could then accompany a Form 139. The Agency would apply the information to their EA template and publish the EA with the Record of Decision.

Information readily available to the Agency from internet sources such as Soil Mapper and Wetlands Mapper are not unique applicant information. A lease map showing new facilities is an example of unique applicant information.

Rule making

The EIS is not the proper forum for introducing new rules. Whether called Conditions of Approval, Best Management Practices, Superintendent's Order, or Notice to Lessees the EIS must be based on existing authorities. The authorities are described in 25 CFR 226 and a few laws that impose additional responsibilities such as the National Historic Preservation Act.

The Draft EIS appears to assume that it is appropriate to impose a BIA defined Best Management Practice (BMP) or a Condition of Approval (COA) to respond to a perceived environmental threat. If the BIA feels a new rule is required it should propose the rule as a change in 25 CFR 226.

If the EIS includes lists of BMPs and COAs it should also include the corresponding authority for enforcement.

Failure to make a statement of environmental impact

The Draft EIS is, inappropriately, a list of perceived risks and the measures that might be applied to counter the risks. The Draft EIS fails to make a detailed statement by the responsible official of the environmental impact of the proposed action as required by Section 102 of the National Environmental Policy Act (NEPA).

The proposed action is the continued management of the Osage mineral estate for the benefit of the shareholders (defined by the 1906 Osage Allotment Act).

The best evidence of environmental impact is the consequences of actions of the Osage Agency since the Agency rediscovered NEPA in 2014. Those consequences can be gleamed from the fifty plus Environmental Assessments prepared by the Agency and/or by the, not too difficult, task of just going to the well sites and looking.

Examination of the consequences might well result in recognition of problems, errors made, or the need for additional regulations.

Reasonably Foreseeable Development Scenario

The Draft EIS's Reasonably Foreseeable Development (RFD) scenario was prepared by the Indian Energy Service Center in 2017 based on 2015 data. Oil wells drilled were forecast to make a sudden increase to 100 wells per year in 2017 and then increase with oil price following an Energy Information Administration "reference or baseline" price projection to about 185 wells per year in 2038. 3,208 total oil wells over twenty years.

Gas wells are forecast to be flat at 68 wells per year.

We find the basis for the oil well forecast to be thin and unpersuasive. Nevertheless, we believe the oil well forecast is reasonable and on the hopeful side. The gas well forecast is more than optimistic.

The Osage Producers Association is not able to offer a well drilling forecast. However, we believe there are many oil drilling targets on existing leases served by existing infrastructure which will be drilled if regulatory process efficiency is restored. Gas wells will largely be oil target disappointments.

The western ranges of Osage County represent a large area of future discoveries. Absent largely of conventional clastic reservoirs which dominate the producing fields of the eastern ranges, the western ranges offer vast tracts of unleased, lightly explored lands. Many historic well bores penetrating carbonate deposits of Pennsylvanian, Mississippian and Ordovician ages exhibit oil and gas shows. The structural configuration and tectonic history are favorable for hydrocarbon migration and trapping. Where porosity and permeability development are insufficient for vertical exploitation, horizontal exploitation has been proven to be effective in economic extraction.

The Oklahoma, Kansas, and Texas Final Joint EIS/Proposed BLM RMP and BIA Integrated RMP (Integrated RMP), November 2019, devotes only four paragraphs in over 2,500 pages to "Nonenergy Leasables". There is significant focus by the United States to identify Rare Earth Element deposits. The United States Geological Survey current focus is to "identify areas that may have the potential to contain undiscovered critical mineral resources. Enhancement of our domestic mineral supply will decrease the Nation's reliance on foreign sources of minerals that are fundamental to the Nation's security and economy." (https://www.usgs.gov/special-topic/earthmri).

The Integrated RMP includes considerable discussion of helium, appropriately omitting Osage helium because helium is coproduced with natural gas and therefore within the scope of this Draft EIS. In addition to potential mineral value of subsurface brines (coproduced with oil), helium deposits in the western ranges are viable economic objectives. Helium deposits in Osage County, OK were documented by the United States Geological Survey in Professional Paper 121, Helium-Bearing Natural Gas. There exists today growing interest in investment in infrastructure required to extract minerals from subsurface brines and economically process helium. The positive impact by the beneficiaries of royalty interests in the Osage Mineral Estate are significant, and if managed well could eclipse the future revenue generated through oil and gas extraction.

American Burying Beetle

The BLM resolved wild horse facility ABB Section 7 issues on 200,000 acres (mostly in Osage County) by paying one dollar and acre to a fund overseen by the Nature Conservancy to benefit the ABB.

The Osage Agency administers surface leases on restricted Indian land, this responsibility is acknowledged in the Integrated RMP,_November 2019, Volume 1, Page 3-238, Paragraph 3.6.18. The anticipated Section 7 process (Biological Assessment and Biological Opinion) should place in perspective the effects of cattle grazing on the ABB. (The BLM administers cattle grazing leases on 155 million acres in the US including endangered species habitat through a combination of EISs, EAs, and where appropriate, Categorical Exclusions.)

The Osage Agency's efforts to comply with the Endangered Species Act in addition to the National Environmental Policy Act impede approvals necessary to sustain oil and gas production. These efforts have delivered no discernible benefit to the ABB.

The Draft EIS devotes 147 pages of 566 total pages, Twenty-six percent, to the ABB in the form of a BIA Biological Assessment and a resulting US FWS Biological Opinion. It appears that the Biological Opinion, July 27, 2018, (Appendix B of the Draft EIS) is intended to be a statement

describing the necessary measures required of permit applicants to meet the Osage Agency's Section 7 ESA requirements. The Biological Opinion is obtuse; a year and one half later and the Agency has not provided a clear explanation of ABB policy.

The Osage Producers Association was a co-plaintiff the lawsuit filed September 21, 2017 that resulted in the US FWS proposal to change the ABB from Endangered to Threatened. The EIS should acknowledge the unresolved status of the ABB or delay the EIS until the US FWS issues a decision.

There may be further litigation which could delay a change in the ABB's status. An interim ABB policy is necessary to allow the functioning of the Osage oil and gas business.

In 2015 the Osage Producers Association commissioned Hydration Engineering, PLLC, to prepare a chronology of events related to the ABB in Osage County. That chronology has been updated and is included as the Appendix to these comments.

Mistakes, errors, secondary sources, etc.

Page ES-2, Paragraph ES.2: A reference is made to the 2014 and 2015 Programmatic EAs. These have been deleted from the Agency's website and should be restored until the EIS process is completed.

Page ES-2, Paragraph ES.3: EAs are not the responsibility of the operator.

Page 2-23, COA 28: The BIA lacks the authority to regulate noise and visual impacts.

Page 3-7, Paragraph 3.2.2: The Indian Nations Council of Governments, 2030 Osage County Comprehensive Plan is a poor secondary source for earthquakes, a reliable source is http://www.ou.edu/ogs/research/earthquakes/catalogs .

Page 3-19: "Additional volumes of produced saline groundwater are likely reinjected in other producing fields in the planning area, but data are not available from those fields." This information is relevant and should be readily available, the BIA should contact the US EPA or the Osage Nation for information on Class II injection wells.

Page 3-47, Paragraph 3.6.2: The highest elevation in Osage County, approximately 1,300 feet is in the far northwest not near Wynona.

Page 3-75, Paragraph 3.10.1, Housing: Pawhuska and Hominy are cities. Recognized villages of the Osage Nation are Grayhorse Indian Village, the Pawhuska Indian Village, and the Hominy Indian Village.

Page 3-89, Paragraph 3.10.1, Environmental Justice: The EIS would benefit from stating that Census tract 9400.2 is the extreme southeast corner of Osage County, 3,800 feet from Tulsa City Hall, and 9400.6 encompasses the city of Pawhuska and the Pawhuska Indian Village.

Page 3-92, Paragraph 3.11.3, Trends: "Oil and gas development will continue to introduce risks to public health and safety in Osage County. The risk level depends on such factors as the amount of development and nature and type of mitigation measures implemented." This and similar gratuitous statements insinuate a level of risk that does not exist.

Page 3-92, Paragraph 3.12, Visual Resources: The Osage Windfarm is an affront to visual resources and should be called out.

Page 3-94, Visual Resources: The referenced "byway" is U.S. 60. Although it does provide unique views and vistas (the best in Oklahoma), there are no buffalo to be seen and no "estates of Oklahoma's historic oil barons", which would have been obvious had the Preparers traveled across Osage County on U.S. 60.

Page 3-94, Visual Resources: Lighting from oil and gas related construction is not significant, less than high school football. The largest operator in Osage County uses "air rigs" and does not operate at night. When rotary rigs are used night, operation is about 5 days per well. Osage wells are not at all like multi well horizontal operations that operate for weeks.

Page 3-95, Paragraph 3.12.3 Trends: The "modification" of the landscape due to oil and gas development is minuscule compared to, for example, the reconstruction of US 60 between Pawhuska and Bartlesville. "Predicted nationwide price increases" are not discussed in Section 3.16 or elsewhere in the DEIS.

Page 3-106, Paragraph 3.16.2 Current Conditions: To spud a well is to start the drilling process.

Page 3-106: It is best not to confuse flowback with produced water. Flowback occurs following hydraulic fracturing and in quality and quantity is similar to the water and chemicals that were introduced as fracking fluids. Produced water is formation water brought to the surface along with oil and gas and may occur through the life of the well and increase over time.

Page 3-107: Produced water is not stored in pits in Osage County. It is not recycled except as a water flood to enhance oil recovery. Produced water in Osage County is disposed of through Class II disposal wells regulated by the US EPA.

Page 3-113: Keystone State Park is on the south side of the Arkansas River, it is not in Osage County.

Page 4-1, Paragraph 4.1 Introduction: The DEIS does not demonstrate the "team's knowledge of the planning area and its resources".

Page 4-8, Table 4-1: The Spearhead and Flanagan South Pipeline "run through" approximately 50 miles of Osage County not 11.3 miles.

Page 4-9: Table 4-1: The Table failed to include the Chaparral (now Perdure Petroleum) CO2 flood project.

Page 4-12, Paragraph 4.2.2 Impacts Common to All Alternatives: The DEIS has failed to account for the substantial volume of produced water returned via Class II disposal wells (Information available from the US EPA or the Osage Nation). The incremental volume introduced by future wells is, by comparison, modest. Substantial quantities of produced water have been reinjected in Osage County for decades without causing seismicity.

Page 4-20, Groundwater: Dedicated wastewater treatment plants and municipal wastewater treatment plants are not used for disposal of produced water in Osage County. Unlined earthen pits are not used to contain produced water in Osage County.

Page 4-21, Impacts from Disposing of Produced Water: Produced water has not been stored in unlined pits for decades. Produced water is never "fresh".

Page 4-23, Indirect Impacts on Water Resources Due to Wastewater Disposal Associated with Hydraulic Fracturing: Produced water is not "disposed of in pits" lined or unlined.

Page 4-25, Paragraph 4.3.4 Alternative 2: Land application of oil and wastewater are not practiced in Osage County.

Page 4-28, Paragraph 4.3.7 Cumulative Impacts: The Preparers are advised to read the entire paragraph from Page ES-9 of Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources Executive Summary, External Review Draft, EPA/600/R-15/047a, June 2015. The statement, "FracFocus 1.0 disclosures indicate that annual water use for oil and gas development was 10 percent, or greater, of total annual water use in 6.5 percent of the counties reporting", is not relevant to Osage County.

Appendix A Page 12, Paragraph G. Infrastructure: Figure 14 is the standard DOT PHMSA map, most of the pipelines shown are not connectable to Osage production.

Appendix A Page 16, Paragraph VII. Surface Disturbance Due to Oil and Gas Activity: We agree, that is difficult, but not extremely difficult, to estimate the current surface disturbance of O&G. It has been done, see: https://ec637f48-b460-4378-9729-cab9e0feb1fc.filesusr.com/ugd/028647_02ad3201cd13488a8b38440c3706c382.pdf .

Summary

- Alternatives 3 and 4 are contrary to federal law and existing lease contracts and must be deleted.
- Efficient permit processing anticipating as many as 185 new wells per year is necessary
- Compliance with the requirements of the National Environmental Policy Act is the responsibility of the BIA
    - The DEIS fails to include a description of the environmental impact of the BIAs continued management of the Osage mineral estate
    - Permit applicants are not required to prepare Environmental Assessments
- 25 CFR 226 are the rules prescribed by the Secretary of the Interior, the EIS is not a forum for rule making
- A clear policy recognizing the interim status of the ABB should be proposed

Appendix

A Selected Chronology of Events Related to the Endangered Species Act and the American Burying Beetle in Osage County Oklahoma, Fred Storer, P.E., Hydration Engineering, PLLC – December 23, 2019

Sincerely,

Board of Directors, Osage Producers Association

Justin DeLong

Shane Matson

Chuck Spurgeon

James Sicking

Don Williams

Mark Short

Charles Wickstrom

DocuSigned by:

0854BDCAC1CB49A...

Aaron Lawson

Mike Mackey

Melinda Carter

Jake Sell

David Butler

cc:

Membership, Osage Producers Association – via email

Geoffrey M. Standing Bear, Principal Chief of the Osage Nation – via email to gstandingbear@osagenation-nsn.gov and sdecker@osagenation-nsn.gov

David Bernhardt, Secretary
Department of the Interior
1849 C Street, N.W.
Washington DC 20240

Osage Minerals Council via email to minerals@osagenation-nsn.gov

Katie Gillies, Director of Conservation, Oklahoma TNC – via email to smcguffin@tnc.org

Senator Jim Inhofe
1924 S. Utica Ave. #530
Tulsa, OK 74104

Senator James Langford
401 South Boston Avenue, Suite 2150
Tulsa, OK 74103

Jonna Polk, Field Supervisor, Oklahoma Ecological Services Field Office, FWS - via email to Jonna_Polk@fws.gov

Lou Phillips, Chair, Osage Shareholders Association- via email to tenderteacher7@gmail.com

Robin Phillips, Superintendent, Osage Agency, BIA – via email to Robin.Phillips@bia.gov

The Honorable J. Kevin Stitt
Governor, State of Oklahoma
Oklahoma State Capitol
2300 N Lincoln Blvd.
Oklahoma City, Oklahoma 73105

Pete Regan
Domestic Energy Producers Alliance
PO Box 33190
Tulsa, OK 74153

Bud Ground
Director of Regulatory Affairs
The Petroleum Alliance of Oklahoma
contact@okpetro.com

Mike Hunter
Office of the Oklahoma Attorney General
313 NE 21st Street
Oklahoma City, OK 73105

Arturo J. Blanco
Director, Office of Communities, Tribes and Environmental Assessment, US EPA
Blanco.arturo@Epa.gov

Mike Cantrell
Oklahoma Energy Producer's Alliance
P.O. Box 2389
Ada, OK 74821

Appendix to Comments of the Osage Minerals Council regarding the Draft Environmental Impact Statement of November 2019

A Selected Chronology of Events Related to the Endangered Species Act and the American Burying Beetle in Osage County Oklahoma.

Fred Storer, P.E., Hydration Engineering, PLLC – December 23, 2019

Opinions, Questions, Clarifications, Comments, Supplemental Information, and are boxed.

January 1, 1970 – National Environmental Policy Act

Section 102(c) of NEPA requires a detailed statement by a responsible official on the environmental impact of the proposed action.

December 28, 1973 – Endangered Species Act

Section 7 of the ESA requires Federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the FWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. During consultation the "action" agency receives a "biological opinion" or concurrence letter addressing the proposed action.

Section 10 of the ESA may be used by landowners including private citizens, corporations, Tribes, States, and counties who want to develop property inhabited by listed species.

Clarification: The purpose of Section 10 is to exempt non-federal projects from an ESA section 9 enforcement. It is entirely at the applicant's discretion. It is very unlikely to be used for a small project. Section 9 enforcement has not been used for the ABB.

1980

Notes on Beetle Distributions, with a Discussion of *Nicrophorus americanus Olivier* and Its Abundance in Collections (Coleoptera: Scarabaeidae, Lampyridae, and Silphidae)

Lloyd R. Davis, Jr., The Coleopterists Bulletin, Vol. 34, No. 2 (Jun. 1980), pp. 245-252

Clarification: *Nicrophorus americanus* is the scientific name of the American Burying Beetle (ABB), Davis added *Olivier* in recognition of the French entomologist Guillaume Antoine Oliver (1756-1814). This article is used as evidence that the ABB's territory once extended from Road Island to Missouri.

1982

An ABB specimen reported by FWS in 1982, Sequoyah County, Oklahoma. (1991 publication)

U.S. Fish and Wildlife Service, 1991. American Burying Beetle (Nicrophorus americanus) Recovery Plan. Newton Corner, Massachusetts.

July 13, 1989

FWS publishes a final rule declaring the American Burying Beetle to be endangered. Federal Register, Vol. 54, No. 133.

1991

FWS Recovery Plan: Two natural populations are reported, Block Island, RI and eastern Oklahoma. FWS reports one ABB specimen from Sequoyah County, OK in 1982. In 1991 ABB's are reported in Cherokee, Muskogee, and Latimer Counties, OK.

The plan was to protect and enhance (conduct research).

U.S. Fish and Wildlife Service, 1991. American Burying Beetle (Nicrophorus americanus) Recovery Plan. Newton Corner, Massachusetts.

June 5, 1997

Secretarial Order (No. 3206): American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act

Signed by Bruce Babbitt, Sec. of Interior, and William Daley, Sec. of Commerce (Clinton's second term). ".... strives to ensure that Indian tribes do not bear a disproportionate burden for the conservation of listed species, ..."

"Principle 3. (C) The Departments, as trustees, shall support tribal measures that preclude the need for conservation restriction."

Clarification: Endangered Species Act, Law, Policy, and Perspectives, Donald C. Baur and Wm. Robert Irvan, (Editors), Second Edition, 2010, devotes an entire chapter to this subject, "Indian Rights and the Endangered Species Act" by Mary Gray Holt.

The chapter describes in detail the circumstances leading to S.O. 3206.

Mary Gray Holt concludes: "Twelve years later (written 2009), the legal conflict between the traditional canons of Indian law and the Endangered Species Act remains unresolved. It seems quite likely that Secretarial Order No. 3206 successfully holds that conflict in an angle of repose."

2007

Dr. Daniel Howard discovered ABBs on the Tallgrass Preserve while doing research on prairie mole crickets, *Gryllotalpa major* Saussure.

June 5, 2007

The Bureau of Land Management published a Finding of No Significant Impact/Decision Record, Finding of No Significant Impact (Based on EA-020-2007-106, May 25, 2007) on proposed federal oil and gas leases in Arkansas which included several counties of known ABB habitat.

The EA covers 13 proposed lease tracks this statement is typical of those in ABB counties: Page 24, EOI (Expression of Interest) 202,

"This proposed lease is within five miles of the Ozark National Forest and the existing ABB BO (Biological Opinion) would require the applicant of any project where disturbance would total over 3 acres to conduct a trap and release program for American burying beetle utilizing accepted protocols outlined in the reasonable and prudent measures in the programmatic biological opinion written by the U.S. Fish and Wildlife Service, Conway Ecological Services Office and dated December 19, 2006.

Comment: A 3-acre threshold would made Osage oil and gas projects exempt from ABB requirements. ABB policies are inconsistent between regional offices. Arkansas reports to Region 4, Atlanta. Oklahoma to Region 2, Albuquerque. Kansas, Nebraska, and South Dakota to Region 6, Lakewood, Colorado.

March 2008

FWS 5-Year ABB Review published.

U.S. Fish and Wildlife Service, March 2008. American Burying Beetle (*Nicrophorus americanus*) 5-Year Review Summary and Evaluation. New England Field Office, Concord, New Hampshire.

Opinion: This is the singular important work of FWS regarding the ABB. It is the work of **Michael Amaral, Sr. (now retired) Endangered Species Specialist in the U.S. Fish and Wildlife Service's (USFWS) New England Field Office (NEFO) and lead recovery coordinator for the species.**

Supplemental Information: For a copy of the (only) 5-Year review email Fred.Storer@hydrationengineering.com

"A rank of 5c indicates that the listed taxon is a full species facing a high degree of threat and with a low recovery potential. The suffix "c" connotes conflict with construction or other development projects." (Page 2)

"After 1991, the ABB was found to be distributed more broadly across eastern Oklahoma into western Arkansas and into large areas of central Nebraska." (Page 4)

"Two large land areas near TNC Tallgrass Prairie are enrolled in the Bureau of Land Management's program for maintaining wild horses taken from Federal land in the West. At least one more wild horse facility is proposed in this same general area. These facilities, depending on stocking rates, could be incompatible with habitat maintenance for small birds and mammals." (Page 28)

Opinion: This was not speculation, the FWS was quite familiar with wild horse environmental issues including endangered species. I suspect that it did not occur to Mr. Amaral that cattle grazing leases would be an issue related to the ABB. At that time the federal nexus resulting from Osage grazing leases administered by the BIA was not appreciated.

".... red cedar encroachment reduces the numbers of most silpid species present and degrades the habitat for burying beetles by limiting their ability to forage for carrion. .... Expanding residential development and associated light population of the night-time sky is cause for concern ...." (Page 28)

" ... vertebrate predators have the potential to compromise the persistence of ABB occurrences by impacting the carrion resources upon which the ABB depends. For example, feral cats on Block Island

may be a potential predator of ring-necked pheasants which have become naturalized on the island and are believed to be a primary carrion source for the ABB on the island." (Page 31)

"The ABB is capable of moving considerable distances across the landscape (e.g. 1 km per night) in search of carrion for both food and reproduction. This characteristic, along with the practical reality that they must be lured into traps to determine presence, makes it difficult to accurately define and delineate ABB essential habitat in need of protection. .... it is difficult to clearly distinguish between an area that constitutes ABB habitat in a nearby area that does not. Therefore, in many situations it is difficult to apply the protective provisions under sections 7 and 9 of the ESA, because the use of **baited pitfall trips may successfully capture beetles in locations where it is simply transient or present only opportunistically due to the carrion provided in the trap**. ... it is the species' unique life history and ecology make the implementation of available protective measures to perpetuate the essential features of ABB habitat particularly challenging. ... **Simply put, the ecology of this species requires landscape-level conservation rather than a perpetual attempt to protect specific ABB occurrences in response to smaller-scale project reviews.**" (Page 31) *Emphasis is ours.*

"The plan's interim objective of eliminating the risk of immediate extinction has been met. The reclassification objective is based on demonstrating that the risk of extinction is no longer probable, and the criteria for this objective focus on the re-establishment of a representative distribution of the species in all four geographic portions of its former range." (Page 34) *Emphasis is ours.*

Opinion: Reclassification objective was to change the status from Endangered to Threatened. Because the FWS saw the need as establishing the ABB in other parts of the ABB's former range there was no value in supporting a conservation bank in Oklahoma and no value in mitigating minor habit loss from oil and gas activities (while habit loss from urban sprawl and rural residences runs amuck).

From 4.0 Recommendations for Future Actions;

"4.0 Develop conservation strategies that emphasize the protection of essential features of large occupied habitats (minimally fragmented landscapes with abundant carrion species and **de-emphasize small scale, site specific project reviews**." (Page 36) *Our emphasis.*

"5.0 Develop Programmatic Biological Opinions with Federal agencies where appropriate to **address section 7 consultation regarding the ABB at the landscape level, rather than by individual projects.** This will not only afford the ABB protection and minimization of take but can better aid in the long-term conservation of the ABB." (Page 36) *Our emphasis.*

Opinion: These are "instructions" from the FWS to the FWS. "Find a beetle, don't find a beetle, buy stock in a Beetle Bank" is not following the "instructions". Two acres for an oil well is not a landscape.

"7.0 Seek opportunities to partner with the Natural Resource Conservation Service and large private landowners to enroll ABB habitat in the Conservation Reserve Program CRP program and utilize other USDA and USFWS programs to restore and enhance ABB habitat through native species management." (Page 36)

Comment: Based on a visit to the Washington County USDA office on May 1, 2015 and it was apparent that the USDA NRCS programs in Washington County have no connection or knowledge of the ABB vis-a-via the ESA, NEPA, or the FWS.

2008

"In 2008, the BLM and the U.S. Fish and Wildlife Service (FWS) developed a Consultation Agreement regarding operation of the BLM's wild horse use long-term holding facilities within American burying beetle habitat in Oklahoma."

Letter Joan Guilfoyle, Chief, Wild Horse and Burro Division, Bureau of Land Management to Fred Storer, October 3, 2014.

August 14, 2009

The BLM requested Section 7 consultation with the FWS for the Wild Horse Long Term Holding Facility

April 1, 2010

The Oklahoma Field Office of the FWS published a Biological Opinion re the Wild Horse Long Term Holding Facility. The Biological Opinion listed 10 facilities, 139,868, acres in Osage County.

The ABB conservation measures agreed by the BLM included:

- Minimization of the size of new surface disturbing activities to below 1.2 acres
- Contribution of $200,000 ($1/acre) for conservation efforts to the Oklahoma Chapter of The Nature Conservancy "for the purposes of ABB conservation in the tallgrass-prairie habitats of Oklahoma"

Opinion: This Biological Opinion is a high-quality effort of the Oklahoma Field Office and contains useful ABB information and references.

Supplemental Information: For a copy of the Wild Horse Biological Opinion email Fred.Storer@hydrationengineering.com

2009

FWA/ODOT/USFWS/TNC - Oklahoma: American Burying Beetle Conservation and Transportation Improvement Streamlining Initiative

"Past consultations for the ABB on individual projects were costly, time-consuming, and resulted in few conservation results for the species. This new programmatic initiative aims to provide proactive conservation for the ABB that would allow ODOT and FHWA to comply with the Endangered Species Act (ESA). In order to accomplish this goal, ODOT, FHWA, and the USFWS have partnered with The Nature Conservancy (TNC), a non-governmental organization, to develop an initiative that would satisfy FHWA's ESA Section 7 Consultation for the ABB as well as provide for the conservation of the species within Oklahoma. The key to this initiative is TNC's American Burying Beetle Conservation Fund. The ODOT contributes monies to the Fund, which is held by TNC and used by the USFWS to enhance the conservation of the ABB in advance of potential impacts to the species from transportation projects.

Federal Highway Administration describes "Oklahoma: American Burying Beetle Conservation and Transportation Improvement Streamlining Initiative" on the FWA website. "ODOT places funds that would have been spent on surveys and trap and relocations for individual projects directly into the ABB Conservation Fund. Money in the Conservation Fund provides for ABB research, land acquisition, conservation easements, and other conservation measure determined by the USFWS as appropriate mitigation for future transportation projects. The result is more meaningful ABB conservation than what would have been provided by continuing individual project-specific procedures on transportation projects within the range of the ABB." .... "For more information, contact Julianne Hoagland at jhoagland@odot.org"

Comment: This arrangement is like the BLM's for wild horse pasture. As of June 24, 2015 was still posted on the FHWA website. http://environment.fhwa.dot.gov/ecosystems/eei/ok09.asp 5/3/2015

February 12, 2010

The Journal of Insect Conservation accepts for publication: Using species distribution models to guide conservation at the state level: the endangered American burying beetle (Nicrophorus americanus) in Oklahoma by Crawford and Hoagland.

Crawford, H.C. and Hoagland, Using species distribution models to guide conservation at the state level: the endangered American burying beetle (Nicrophorus americanus) in Oklahoma , Journal of Insect Conservation, February 27, 2010.

2010 End of Year

The Nature Conservancy reports in Oklahoma year in review 2010:

"Developers now have the option to aid in the conservation of the ABB and mitigate for habitat lost due to their development actions by donating to the ABB Fund and consulting formally with the Service. The Oklahoma Department of Transportation has joined in the ABB Fund arrangement and provides for long-term conservation to the ABB by making annual contributions to offset habitat loss from their highway and bridge improvement projects. The ABB Funds can be utilized by The Conservancy for land acquisition, conservation easements, habitat restoration and research in areas of ABB existence. In 2010, ABB funds were used to purchase several in-holdings at the Tallgrass Prairie Preserve and to support additional ABB research at that location. Research results will be used to guide conservation efforts in Oklahoma and elsewhere."

http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/oklahoma/oklahoma-2010-1.pdf

Opinion: This was the best money spent on the ABB. Had the money spent on presence/absence surveys in Osage County been directed here the ABB would be much better off.

September 2012

FWS reported that it began working with the Muddy Boggy Conservation Bank.

http://www.fws.gov/southwest/docs/AMERICANBURYINGBEETLECONSERVATIOnOK.pdf

November 7, 2012

Article, Using Spatial Models to Target Conservation Efforts for the Endangered American Burying Beetle, Luke A. Bell, Priscilla H. C. Crawford, Anita L. Barstow, Chris D. Tanner and Dixie L. Porter, accepted for publication by The Open Entomology Journal.

Bell et al, Using Spatial Models to Target Conservation Efforts for the Endangered American Burying Beetle, The Open Entomology Journal, 2013, 7, 1-8

December 31, 2012

FWS Report of Osage County ABB survey results for 2012: 217 total samples, 28.6 % positive.

http://www.fws.gov/southwest/es/oklahoma/Documents/ABB/Surveying%20final/ABB%20Location%20Data%202012.pdf

June 1, 2012

American burying beetle (ABB) Nicrophorus americanus is updated by the Oklahoma FWS office.

This document uses the 1.2-acre test. "Will your project disturb more than 1.2 acres and ABB is on your official species list? No-Your project will Not Likely Adversely Affect ABB. Document this determination on your species conclusion table and submit it with your project consultation package. Your project can move forward without further consideration of ABB."

August 17, 2012

Drs. Daniel Howard and Carrie L. Hall reported to FWS, An update on the status of the American burying beetle at The Nature Conservancy's Tallgrass Prairie Preserve in Oklahoma, "The population here was found to be associated with regions holding silty-loam soils, with light to no grazing, and with frequent prescribed burns.

December 31, 2013

FWS Report of Osage County ABB survey results for 2013:

Year	Total Samples	% Positive
2012	217	28.6
2013	162	3.1

http://www.fws.gov/southwest/es/oklahoma/Documents/ABB/Surveying%20final/ABB%20Location%20Data%202013.pdf

August 1, 2013

Jessica Jurzenski's PhD thesis on the ABB, University of Nebraska.

Opinion: An example of the quality ABB work done at the University of Nebraska.

March 2013

American Burying Beetle, A Species Conservation Assessment for the Nebraska Legacy Project, Melissa J. Panella, Nebraska Game and Parks Commission.

Opinion: This publication includes recommendations which are reflected in Nebraska's practical practices.

March 4, 2013

Oklahoma Independent Petroleum Association (OIPA), Brian Woodard, VP Regulatory Affairs, comments on the FWS's Notice of Intent to Prepare a Draft Impact Statement for a General Conservation Plan for the American Burying Beetle for Pipelines and Well Field Development in Oklahoma and Texas. (19 pages)

Regarding the Section 10 process: "Because the voluntary decision to pursue an ITP (Incidental Take Permit) lies with the prospective permittee, the **applicant** selects the desired coverage and scope of the conservation plan and permits. (Page 5) *Woodard is arguing that the FWS should be flexible with the strategy to be used for mitigation.*

"As CEQ (Council on Environmental Quality, the NEPA agency) has explained, "reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense ……."" (Page 11)

"The Service has indicated that it currently plans to authorize only one general method of mitigation under the GCP – habitat conservation in the form of mitigation banks and permittee-responsible mitigation. While we agree that those mitigation methods generally are effective, and OIPA supports their inclusion in the GCP, we have significant concerns that limiting the approved mitigation measures to only those two options will render mitigation infeasible." (Page 12)

"Our concerns with FWS limiting the approved mitigation measures to a banking credit program and permittee-responsible mitigation center on two principal issues: (1**) the mitigation banking option would be cost-prohibitive; and (2) the permittee-responsible mitigation will be impracticable**." (Page 12)

"In lieu fee mitigation – **The option of in lieu fee mitigation (e.g. conservation funds) has been conspicuously absent from FWS's discussions of possible mitigation measures under the GCP. That oversight is particularly troubling to OIPA. FES has long endorsed payment of in lieu fees as a proven mitigation technique under the ESA and continues to support conservation funds to protect numerous species in states across the country.** The ABB and Oklahoma are no exception. In fact, the Service recently has supported at least two conservation funds and one conservation trust to address ABB impacts within the state, the latter of which it approved specifically to mitigate ABB impacts from a pipeline project. *See, e.g.,* The Nature Conservancy's ABB Conservation Fund; Okl. Dep't of Transp. ABB Conservation and Transportation Improvement Streamlining Initiative (available at http://www.environment.fhwa.dot.gov/ecosystems/eci/ok09.asp); Conservation Trust Agreement for TransCanada Keystone Pipeline (2011)."

Brian Woodard, VP Regulatory Affairs, OIPA to Field Supervisor, Oklahoma Ecological Services Field Office, U.S. Fish and Wildlife Service, Notice of Intent to Prepare a Draft Environmental Impact Statement for a General Conservation Plan for the American Burying Beetle for Pipelines and Well Field Development in Oklahoma and Kansas, March 4, 2013.

April 25, 2013

Oklahoma Ecological Services Field Office American Burying Beetle Carrion Removal Protocol is issued.

Prior to August 6, 2013

The Oklahoma FWS removed the reference to 1.2 acres as a discountable (insignificant) threshold. This is reported in FWS meeting notes, American Burying Beetle Science Review August 6-7, 2013.

February 6, 2014

Article from Public Employees for Environmental Responsibility

"Managers within the U.S. Fish and Wildlife Service (FWS) overrode their scientific experts to adopt an inaccurate map based on a flawed model that significantly shrank the range of an endangered species, according to agency investigative reports released today by Public Employees for Environmental Responsibility (PEER). The managers not only retaliated against scientists who voiced objections but rushed into publication of bogus scientific journal article to cover their tracks."

"Based on complaints from FWS scientists, specially convened Scientific Integrity Review Panels found two "high-level" officials guilty of scientific misconduct. The panels found that Dixie Porter, supervisor of the FWS Oklahoma Ecological services field office in Tulsa, Oklahoma, and Luke Bell, FWS Branch Chief for Threatened and Endangered Species and Contaminants..."

http://www.peer.org/news/news-releases/2014/02/18/senior-officials-skewed-science-to-benefit-xl- pipeline/ 9/22/2014

http://www.eenews.net/stories/1059994174 9/21/2014

http://www.peer.org/assets/docs/doi/2_6_14_Supplemental_report_summary.pdf 5/2/2015

Supplemental Information: See the article posted at November 4, 2012 above.

May 21, 2014

FWS – Tulsa on establishing mitigation lands

"Mitigation and offset programs, including conservation banks, for federally listed species are proving effective at mitigating the effects of take of listed species, including effects from loss of species habitat I many states. ... The Service recommends offsetting the effects of taking through conservation (protection, preservation, and management) of ABB habit in perpetuity (referred to herein as "mitigation lands") to assist in recovery efforts of the ABB."

U.S. Fish and Wildlife Service, May 2014, American Burying Beetle Conservation Strategy For the Establishment, Management, and Operations of Mitigation Lands, Southwest Region

Comment: The only reference to the 2008 5-Year FWS plan was to the historic range of the ABB. There is no acknowledgement that a conservation bank is counter to the 2008 5-Year plan.

May 21, 2014

FWS – Tulsa Publishes OIL AND GAS INDUSTRY CONSERVATION PLAN Associated with the Issuance of Endangered Species Act Section 10(a)(1)(B) Permits for the American Burying Beetle in Oklahoma

"COOPERATORS: U.S. Fish and Wildlife Service; Individual Oil and Gas project proponents engaged in exploration, development, extraction, or transport of crude oil, natural gas, and/or petroleum products; Oklahoma Independent Petroleum Association (OIPA) members." (Page 2)

Comment: Note the comment of OIPA under March 4, 2013 and the careful use of "members".

Opinion: A Section 10 permit is attractive to high cost projects where there is significant legal or political risk regarding an endangered species. The use of the term "COOPERATORS" may not be appropriate.

"FUNDING PLAN: Applicants are committed to full implementation of the ICP and will mitigate for all unavoidable impacts according to the Mitigation Strategy for the ABB and the anticipated impacts described in their Individual Project Package (IPP) application (Section 7.2.1). Funding assurances will be provided with their Individual Project Package application (Section 6.0)." (Page 2)

"Participation in the ICP and an application for take is voluntary." (Page 4)

Opinion: You can't be ordered by the BIA or the FWS to obtain a Section 10 permit.

"We developed this document in cooperation with the Oklahoma Independent Petroleum Association (OIPA), its members, and other interested oil and gas companies in an effort to best meet the current and anticipated needs of the industry and the Service's statutory and regulatory requirements." (Page 5)

Comment: Osage oil and gas companies did not cooperate.

"Mitigation Land Options

..... Project proponents should consult their Incidental Take Permit associated with their approved Habitat Conservation Plan or Incidental Take Statement .. for the correct type and number of credits to purchase. ... 2. Conservation Banks: Conservation banks are mitigation lands that are established by a party other than the project proponent, referred to as the Bank Sponsor. ... "(Page 5)

"Permits issued under the ICP may cover new construction for up to 24 months and operation and maintenance activities for up to 20 years after Permit issuance. Permit duration will not exceed 20 years. Therefore, take issued under this ICP may occur for a maximum of 22 years following ICP authorization." (Page 8)

"The only alternative to the proposed incidental taking we considered is for project proponents to avoid any actions that could result in take of ABB within the species' range. Under this alternative, **some exploration, development, and transportation of crude oil, natural gas, and petroleum products would be curtailed within the range of the ABB** (to avoid take of the species) and therefore would not meet the needs of project proponents. Complete avoidance of ABB habitat is not practical or feasible for most oil and gas industry activities within the Planning Area." (Page 9)

Comment: Several Osage oil and gas projects have been abandoned or postponed indefinitely rather than obtaining a Section 10 permit.

"2.0 COVERED ACTIVITIES

2.1 Upstream Production

Upstream production, as defined by this ICP, includes activities associated with oil, natural gas, and other petroleum products and development of the infrastructure required to extract those resources. Covered activities associated with upstream production include:

Geophysical Exploration – also known as seismic exploration
Construction, operation, and maintenance of new and existing well field infrastructure and decommissioning of obsolete facilities, including:
Well pads, Drilling and completion activities, Wells, Gas flaring, Work and access roads, Electrical distribution lines (voltage must be 34.5 kilovolts (kV) or less), Off-site impoundments, Communication towers

"3.1.2 Life History

ABBs have been reported moving distances ranging from 0.10 to 18.6 miles (0.16 to 30 kilometers) in various parts of their range (Bedick et al. 1999, Creighton and Schnell 1998, Jurzenski et al. 2011, Schnell et al. 1997-2006). Creighton and Schnell (1998) conducted a study on movement patterns of ABBs at Camp Gruber and Fort Chaffee in 1992 and 1993. The longest distance recorded for an individual was 6.2 miles (10 kilometers) over six nights, or approximately 1.03 miles (1.66 kilometers) per night, and the maximum distance moved by one ABB was 1.8 miles (2.9 kilometers) in one night (Creighton and Schnell 1998). Schnell et al. (1997-2006) reported a one day movement of 2.6 miles (4.18 kilometers). Considering the ABB's mobility, small size, recorded movement distances, and distance from which they can detect carrion, the Service considers presence/absence surveys to be conservatively effective over a distance of 0.5 miles (0.8 kilometers).

Comment: The FWS is saying that if there are ABBs within 0.5 miles a presence/absence survey will find them. Accepted, there were no ABBs within 0.5 miles the five nights of the survey. That does not mean there will be no ABBs within 0.5 miles on night 6 (or two years after a drilling permit is issued). A dead cow, deer, etc. can be detected miles away and an ABB can move miles in one day. If a transient ABB couple finds the right-size carrion in the neighborhood they might well sequester it.

Opinion: Presence/absence surveys are not a useful tool for predicting the future location of ABBs. The FWS referenced 2008a, FWS 5-Year ABB Review, four times in the ICP yet they failed to read page 31, "Therefore, in many situations it is difficult to apply the protective provisions under sections 7 and 9 of the ESA, because the use of baited pitfall trips may successfully capture beetles in locations where it is simply transient or present only opportunistically due to the carrion provided in the trap."

"3.1.2.1 Areas Unfavorable for the ABB

While the ABB uses a wide variety of habitats, the Service currently believes that areas exhibiting the following characteristics are *unfavorable* for use by ABBs based on disturbance regime, vegetation structure, unsuitable soil conditions, and carrion availability:

1. Land that is tilled on a regular basis, planted in monoculture, and does not contain native vegetation.
2. **Pastures or grasslands that have been maintained through frequent mowing, grazing, or herbicide application at a height of 20 cm (8 inches) or less.**

Comment: Grazing to less than 8 inches is common, photographic evidence must be presented with permit applications.

3. Land that has already been developed and no longer exhibits surficial topsoil, leaf litter, or vegetation.
4. Urban areas with maintained lawns, paved surfaces, or roadways.

5. Stockpiled soil without vegetation.
6. Wetlands with standing water or saturated soils (defined as sites exhibiting hydric-soils, and vegetation typical of saturated soils, and/or wetland hydrology). "
(Page 24)

"3.1.5 Reasons for decline

The prevailing theory regarding the ABBs' decline is that habitat fragmentation (USFWS 1991): (1) reduced the carrion prey base of the appropriate size for ABB reproduction, and (2) increased the vertebrate scavenger competition for this prey (Kozol 1995, Ratcliffe 1996, Amaral et al. 1997, Bedick et al. 1999)." (Page 27)

"3.1.6 Threats

The ABB Recovery Plan (USFWS 1991) and the **5-year Species Status Review** (USFWS 2008a) identify potential threats to the ABB, including: disease/pathogens, pesticides, direct habitat loss and alteration, interspecific competition, loss of genetic diversity in isolated populations, increase in competition for prey, increase in edge habitat, decrease in abundance of prey, agricultural and grazing practices, and invasive species. (Page 27)

Comment: Another selective use of the 5-Year Species Status Review.

"While the oil and gas activities covered under the ICP would likely cause take of ABBs in the form of mortality, harm, and harassment, some of these losses constitute a one-time or short duration pulse effect to the ABB populations in Oklahoma, so they will not affect ABB populations long-term. The restoration program would ensure that the acres disturbed by Projects will be either restored appropriately or mitigated at the rate for permanent impacts (1:1 or higher). In addition, protection of ABB habitat in previously unprotected areas would improve the likelihood of survival and recovery of the species." (Page 32)

Comment: This seems to be a statement that this ICP is not need.

"3.3.2 ABB Habitat within the ICP Planning Area

Areas unsuitable for the ABB (areas where take is not expected to occur) included the land cover categories of Open Water, Developed Open Space, Developed Low Intensity, Developed Medium Intensity, Developed High Intensity, Barren Land, and Cultivated Crops. Approximately 85.8 percent (19,612,333 acres; 7,936,830 hectares) of the Planning Area was considered ABB habitat according to NLCD data, and approximately 14.2 percent (3,245,830
acres; 1,313,541 hectares) was not considered ABB habitat." (Page 33)

Comment: This analysis fails to identify the portion of Hay/Pasture (4,694,828 acres) which are not suitable habit due the FWS criteria of 8 inches of grass height and issues with wild horse pasture and intense grazing of cattle. Presumably any activities on unsuitable land would not be ABB habitat and can be excluded from mitigation requirements.

"3.3.4 Total Impact Estimates within Planning Area

.... the Service anticipates that the overall percentage of range-wide ABB habitat that may be impacted by Covered Activities in this ICP is likely much smaller than 0.16 percent (the percentage of Oklahoma ABB habitat in that may be impacted by Covered Activities)." (Page 38)

Comment: The probability of encountering an ABB on a typical Osage oil well project not on the Tallgrass preserve is about 1 in 1,000. See Comments below, 2017.

Summer 2014

The Nebraska Department of Roads in the Summer NDOR Environmental Bulletin provides mowing instructions for ABB habit. Instructions are to start mowing two weeks before ground disturbance at construction sites and keep grass length to less than 8 inches for the duration of work.

http://www.transportation.nebraska.gov/environment/e-bulletin/2014-Summer.pdf

Opinion: This appears to be an extremely attractive solution. If a new pad, roads, etc. were mowed before the active season and kept mowed. The ABB would avoid the area. No ABB take would occur. Could it be that simple?

This is another example of the practical ABB solutions from Nebraska.

June 4, 2014

Publication of American Burying Beetle by FWS, Oklahoma. This is a 28-page survey of the status to the ABB.

Page 17. "Land conversion to agriculture and development, logging, fire suppression, and **intensive domestic livestock grazing** are the primary causes of habitat loss and fragmentation within eastern Oklahoma today. For example, large areas of native grasslands have been converted to introduced grasses such as fescue and bermuda varieties to improve pastures for intensive cattle grazing operations."

July 15, 2014

The Osage BIA Superintendent issues a letter notifying the lessees that beginning August 12, 2014 they will be required to prepare draft environmental assessments for all future proposed actions requiring BIA approval.

Comment: "Required" was an error, The Council on Environmental Quality Regulations, 40 CFR 1506.5(b), says "**If** and agency permits and applicant to prepare an environmental assessment .... ".

August 2014

The Oklahoma FWS office published ACTIONS WITH NO IMPACTS TO FEDERALLY-LISTED SPECIES OR OTHER FEDERAL TRUST RESOURCES (two pages).

"The U.S. Fish and Wildlife Service (Service) believes the following types of actions, individually and/or cumulatively, have no impacts on any federally-listed species, federally-designated critical habitat, or any other federal trust and wildlife resources in Oklahoma."

The 13 dot point list contains such things as: a new home within a developed lot and/or related loans, resurfacing existing roads, replacement of utility poles in existing right-of-way provided the right-of-way maintained with grass less than 8 inches, and acquisition of land to be held in trust for Federally recognized Tribes.

The letter concludes: "This letter is your blanket approval for the above defined actions in Oklahoma from the Oklahoma Ecological Services Field Services of the U.S. Fish and Wildlife Service. These projects may proceed without first contacting the Service for approval. This blanket approval is valid until rescinded by the Service."

Comment: Of interest is what this list does not include (USDA NRCS ponds, Rural Water Districts, REA power lines, new homes on rural lands supported by USDA Rural Development Loans, etc.) and the reason for its publication. It is directed to Federal agencies and activities with a federal nexus. Presumably, if an action is not on the list than an ESA section 7 consultation is suggested. While the ABB is not mentioned it is clearly the most obvious federally listed species and directly impacted habitat *impacts listed*

October 3, 2014

Joan Guifoyle, Division Chief, Division of Wild Horse and Burros responded to Fred Storer's letter of August 12, 2014. In part:

"In 2008, the BLM and the U.S. Fish and Wildlife Service (FWS) developed a Consultation Agreement regarding operation of BLM's wild horse long-term holding facilities within American burying beetle
habit in Oklahoma. The Agreement provides both the BLM and the FWS an opportunity to benefit from operational improvements while meeting collective obligations under the Endangered Species Act."

"As part of the conservation measures of the Agreement, the BLM provided a one-time payment of $200,000, at the rate of $1.00 per acre, for wild horse long-term holding facilities in American burying beetle habit in Oklahoma. The funds were transferred to the Oklahoma Chapter of the Nature Conservancy for the purposes of the American burying beetle conservation in the tallgrass-prairie habitats of Oklahoma."

October 20, 2014

ABBCB, American Burying Beetle Conservation Bank, responded to an RFP from Hydration Engineering, PLLC quoting the cost of credits:

1.) "The minimum number of credits we can provide"

ABBCB: We will provide credits down to the 0.25 credit as stipulated by USFWS in the ICP.

2.) "The cost for a block of 10 credits."

ABBBC will provide 10 Credits for a total cost of $135,000 ($13,500 per credit).

ABBCB: "This block of credits represents a volume discount from the individual credit price of $15,000 per credit, which would be used for single, or fractional, credits sales under your first question."

Smith, Preston W. to Travis Keener, October 20, 2014 via. Email.

December 31, 2014

FWS Report of Osage County ABB survey results for 2014:

Year	Total Samples	% Positive
2012	217	28.6
2013	162	3.1
2014	119	21.7

January 12, 2015

The Norman Transcript reports that "Oklahoma Department of Transportation has purchased 700 beetle credits at a price of $10,000 per credit, or $7 million".

Comment: This signaled the end of the 2009 arrangement of making payments to the TNC American Burying Beetle Conservation Fund reported above. This was relatively painless for the State of Oklahoma because the money comes from the Federal Highway Administration, hence the ESA federal nexus. The $7 million was paid to the Conservation Banks established by the FWS Oklahoma Field Office May 21, 2014.

January 20, 2015

FWS announces a Chaparral Energy section 10 permit application under the Oil and Gas Industry Conservation Plan.

Federal Register Volume 80, Number 12 (Tuesday, January 20, 2015)] [Notices][Pages 2724-2725]

March 24, 2015

Oklahoma FWS publishes American Burying Beetle Impact Assessment for Project Reviews.

This document contains a stepwise process for project impact analysis.

Page 12. "For projects that cannot avoid take of the ABB, the Service recommends mitigating the effects of the take through conservation (protection, preservation, and management) of occupied **ABB habitat in perpetuity** (referred to as "mitigation lands") to assist in recovery efforts for the ABB (Appendix B). The Service strongly encourages habitat offsets to Federal agencies conducting formal Section 7 consultations, and the Service requires them of private entities developing HCPs (pursuant to section 10(a)(1)(B) of the ESA)."

Comment: As explained in the FWS reclassifying proposal, May 3, 2019, by mid-century all the Southern Plains (Oklahoma and Kansas) analysis areas will exceed threshold temperatures resulting in extirpation of the ABB. The fundamental premise of the mitigation lands, that they provide care in perpetuity, is no longer valid.

March 2015

South Dakota Department of Transportation reports "regarding Reasonable and Prudent Measures (RPMs) were also set in place for projects affecting the American burying beetle: 1)Avoidance or Minimizing Habitat Disturbance (Ground-disturbing Activities) in Riparian and Grassland Habitats, 2) Training, 3) Reporting, 4) Including Current or New Scientific Information."

Compliance Report for 2014: Biological Opinion for Stream-Crossing Projects Administered/Funded by the South Dakota Department of Transportation and the Federal Highway Administration, By: Office of Project Development, South Dakota Department of Transportation, March 2015, Submitted to: United States Fish and Wildlife Service, Mountain-Prairie Region 6, South Dakota Ecological Services Office, Pierre, SD

Comment: Included to illustrate the contrast between the Oklahoma and South Dakota Departments of Transportation.

August 21, 2015

American Stewards of Liberty, the Independent Petroleum Association of America, the Texas Public Policy Foundation, and Dr. Steven W. Carothers requested the FWS remove the ABB from the endangered species list.

March 16, 2016

FWS published a finding that the August 21, 2015 delisting petition contained substantial scientific or commercial information indicating that the petitioned action may be warranted.

July 12, 2016

Osage Agency submitted their original ABB draft Biological Assessment to FWS.

October 7, 2016

FWS submitted comments to Agency for incorporation in ABB draft Biological Assessment.

2017

The FWS Oklahoma Field Office published the results of ABB presence/absence surveys for 2016.

Comment: These results are published annually. Hydration Engineering tabulated the results for Osage County for 2016. We noticed dramatically different results for surveys on the Tallgrass versus the rest of Osage County.

	Surveys	Negative	Positive	ABBs Counted
Tallgrass	40	3	33 (83%)	403*
Non-Tallgrass	103**	80	23 (22%)	34

*Recognize that some ABBs are probably counted more than once on the Tallgrass.

**Largely locations where a future oil well was contemplated

The non-Tallgrass area surveyed was 51,706 acres, 81 square miles, one ABB for every 2.4 square miles. If a new drilling site required 1.5 acres the probability of encountering an ABB was one in one thousand.

Opinion:

The Tallgrass had oil wells long before the Chapman-Barnard ranch was purchased by TNC. There is little question that TNC's management benefits wildlife including small animals useful to the ABB. It is very likely the ABB has prospered under the care of TNC (there were no pre purchase ABB surveys, Dr. Howard found the first ABB on the Tallgrass in 2007). The Tallgrass is better for the ABB because it is no longer a cattle ranch.

April 18, 2017

A second draft of the ABB Biological Assessment was submitted by the Osage Agency for comment by the FWS.

May 23, 2017

FWS submitted comments to the Osage Agency on the second draft ABB Biological Assessment.

July 13, 2017

The final version of the ABB Biological Assessment was submitted to the FWS by the Osage Agency.

September 15, 2017

A letter from the FWS initiating formal consultation was sent to the Osage Agency.

September 21, 2017

The Independent Petroleum Association of America, American Stewards of Liberty, and **Osage Producers Association** filed a lawsuit on challenging FWS failure to make a 12-month finding on their petition to delist the ABB.

July 27, 2018

The Osage County ABB Biological Opinion was approved and published by the FWS.

Opinion/Comment: The Biological Opinion is difficult to understand, the Osage Agency needs to publish a statement of ABB policy.

May 3, 2019

The FWS responded to the September 21, 2017 lawsuit with their proposal to reclassifying the ABB from endangered to threatened and a proposed ESA 4(d) rule.

Comment: A 4(d) rule is a regulation intended to conserve species listed as threatened.

October 9, 2019

The comment period closed on the FWS proposal to down list the ABB. There were 77 comments.

December 2, 2019

The protest period ended for the Oklahoma, Kansas and Texas Final Joint Environmental Impact Statement/ Proposed BLM Resource Management Plan and Proposed BIA Integrated Resource Management Plan. (The protest period was 30 days for those with a stake in the final EIS to file a protest, we do not know if a protest was filed.) Originally Osage oil and gas was to be a part of this EIS, but the Osage Minerals Council requested the separation of oil and gas in order to expedite the process, a strategy which failed because the first Oil and Gas Draft EIS was tabled four years ago.

This EIS is over 2,500 pages, 6 volumes, and cost $4.8 million.

This EIS should facilitate NEPA compliance for non-oil and gas by allowing site-specific EAs for BIA actions. This EIS includes Osage minerals other than oil and gas as well as other Osage Agency responsibilities. Those responsibilities include surface leases administered by the BIA.

Regarding surface leases for livestock grazing in Volume 1, Page 3-238:

> *3.6.18 Livestock Grazing*
> *Livestock grazing is described in Section 3.3.6, BLM Resource Uses, Livestock Grazing.* ***Where***

information is different for the BIA decision area, that information is provided below.

Current Condition

The BIA livestock grazing program is managed in accordance with 25 CFR 166. Both the ***BIA Eastern Oklahoma*** *and Southern Plains Regions process grazing leases for restricted and trust lands. Grazing leases vary in size, from as little as 5 to 10 acres and up. The leases are normally executed for 3 to 5 years. At this time,* ***the total number of leases that are administered in the two regions is unknown.***

Comment: It appears that there has been no effort on the part of the Osage Agency to address NEPA compliance for grazing leases. We expect this to change as surface leases are renewed or new leases are entered. The BLM has considerable experience with grazing leases including ESA issues which may serve as a model for Osage County.

Spring 2020

Conclusion: A decision on down listing is expected in the spring of 2020. Litigation by the Center for Biological Diversity, et al is expected which could delay a change beneficial to Osage oil and gas. Even if the ABB status is changed to threatened it could be relisted in the future. A 4(d) rule is a possibility.