The Nature Conservancy
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February 6, 2020

Mrs. Robin Phillips, Superintendent
BIA Osage Agency
Bureau of Indian Affairs
P.O. Box 1539
Pawhuska, Oklahoma 74056

via email and first class mail
osagecountyoilandgaseis@bia.gov

Re: Osage County Oil and Gas Draft Environmental Impact Statement

Dear Mrs. Phillips,

Thank you for the opportunity to comment on the Osage County Oil and Gas Draft Environmental Impact Statement (DEIS). The Nature Conservancy (TNC) appreciates the Bureau of Indian Affairs' (BIA) efforts to prepare this document. TNC is concerned, however, that the DEIS falls short of the mark on giving this action the requisite "hard look" required under the National Environmental Policy Act. Many of these shortcomings require revisions and additional analysis that may likely require BIA to revise and recirculate the DEIS for further public review and comment.

All of that said, based on the discussion and analysis provided in the DEIS, TNC believes the BIA should identify Alternative 4 as the proposed action and preferred alternative because Alternative 4 provides the best opportunity for achieving the important balance between productive oil and gas activity and the protection of sensitive landscapes and resources. In addition, Alternative 4 is the only action alternative that satisfies the purpose and need of the proposed action, as discussed in our comments below.

1. **Failure to Meet the Purpose and Need of the Proposed Action**. As stated in the DEIS, "[t]he objective of the alternatives is, to the extent possible, to promote oil and gas development while avoiding or minimizing potential adverse impacts on surface owners, wildlife, and natural and cultural resources from noise, traffic, excavation, dust, and other disturbances associated with construction and operations under oil and gas leases." DEIS, p. 2-2. The purpose of the BIA's action includes "protection of the environment," "protection of the health and safety of the Osage people," and "prevents pollution." DEIS, p. 1-3. The proposed action alternatives must be reasonable, 40 CFR Section 1502.14, and to be reasonable, an action must, among other things, meet the purpose and need of that action. See generally, Davis v. Mineta, 302 F.3d 1104, 1119 (10th Cir. 2002). We believe Alternative 4 is the only action alternative that meets these criteria.

As currently presented, Alternative 2 fails to meet the required purpose and is thus not a reasonable alternative. The DEIS expressly finds that the environmental consequences to virtually

every resource are *worse* under Alternative 2 than under the No Action Alternative, which is the only alternative that is not required to conform to the purpose and need of the proposed action. DEIS, p. 2-8. With respect to public health and safety, the DEIS is explicit that the impacts may increase under this Alternative. "People living or working on or near a well site could be exposed to higher levels of H2S compared with Alternative 1 (No Action) due to the lack of required air quality measures." DEIS, p. 4-79. Yet, while the focus of Alternative 2 is oil and gas development at the cost of the environment, the number of new wells estimated under Alternative 2 is not increased but is identical to that allowed under the No Action Alternative - the full foreseeable amount of 4,761 wells. DEIS, pp. 2-9, 2-10. Thus, as compared to the No Action Alternative, there is no promotion of oil and gas development nor is there any avoidance or minimization of potential adverse impacts as required to meet the purpose of this action. In fact, Alternative 2 will result in a substantial degradation of many environmental resources, as compared to business as usual under the No Action Alternative. In addition to its potentially devastating environmental impacts and harm to the public, we also believe Alternative 2 will result in delays (not just in the permitting process which will require additional NEPA and ESA review but also in meaningful responses and discourse with landowners), inconsistencies in decision-making, and potential lawsuits. An alternative which is worse for the environment, worse for public health and safety, worse for the permitting process, and with risks of lawsuits is simply not a reasonable alternative.

Alternative 3, as currently structured, does not appear to be much better in these respects than Alternative 2. Alternative 3 divides Osage County into high-density and low-density areas. In high-density areas, Alternative 3 applies the same, wholly inadequate Conditions of Approval (COAs) as Alternative 2. At a minimum, Alternative 3 should apply the same COAs as the No Action Alternative to high-density areas or, as an alternative, should adopt some additional COAs to prevent further degradation (e.g., COAs 32, 33, 34, 35). In any event, the treatment of high-density areas in Alternative 3 suffers from all of the same deficiencies as Alternative 2 and does not result in a reasonable alternative.

Similar serious problems arise in low-density areas, which ostensibly are intended to have a higher level of environmental protection. Alternative 3, however, allows the problematic and unreasonable conversion of a low-density section into a high-density section based on the proposal of the driller: "In sections where drilling additional wells changes the section from low to high density, existing wells would continue to be managed according to low-density management, and new wells would be managed according to high-density management." DEIS, p. 2-12. When a driller proposes to drill in a low-density area, the COAs applied to the drilling should be based on the existing condition of section, i.e., those designed for a low-density area, so as to provide a minimum level of environmental protection. But if the driller proposes to drill enough wells that the density threshold is exceeded and the area subsequently converted to a high-density area, then all of these many new wells drilled by the converter are apparently subject only to the wholly inadequate COAs of Alternative 2. This apparent allowance creates perverse incentives for the driller to propose enough wells to exceed the density threshold and could result in the widespread conversion of low-density areas to high-density areas, with all of its attendant environmental degradation. Under these circumstances, Alternative 3 may result in much the same environmental degradation as Alternative 2, a clearly unreasonable result in light of the purpose of the proposed action. Thus, this conversion allowance is perplexing and destroys the intended environmental protections of a low-density vs. high-density distinction. It also largely discredits the subsequent

discussions in the DEIS on environmental consequences and cumulative effects pertaining to Alternative 3, which fail to consider the likelihood and extensiveness of potential conversions from low to high density and their impact on the studied environmental resources. To maintain the reasonableness and credibility of Alternative 3, BIA should clarify that the driller proposing to convert an area to high density will be obliged for all of its wells to follow the COAs applicable to low density areas (and several others, as described below).

We also believe that all of the Action Alternatives fail in achieving the purpose of the proposed action to the extent the COAs can be waived based on site-specific determinations without any criteria or consideration of impacts. DEIS, p. 2-8. See further discussion on this issue below.

2. **Flawed Cumulative Effects Analyses**. One of the project purposes in the DEIS is to streamline the leasing process by "tiering" to the EIS. DEIS, pp. 1-3, 1-4, and App. E Figure 1-2. However, the DEIS makes clear that the location of impacts from reasonable and foreseeable oil and gas development in Osage County are unknown and that the actual impacts would be determined through site-specific review as part of the APD process: "[T]his EIS provides a programmatic or 'big-picture' level of analysis of oil and gas development in Osage County because the future location of well pads, pipelines, access roads, and other surface facilities is unknown. The location of individual wells and facilities, and the impacts associated with them, would be determined as part of the APD process through site-specific environmental, biological, and cultural compliance efforts as directed by the BIA." DEIS, p. 4-3. While a site-specific assessment is necessary and appropriate during the APD process, so is a cumulative effects analysis taking into account the then-known information and reasonably foreseeable development. Merely "tiering" to the EIS for cumulative effects will not be legally sufficient since that analysis is expressly stated in the DEIS to be incomplete and does not aggregate the expected oil and gas development and other reasonably foreseeable developments and assess their total impact on individual environment resources. In essence, a complete cumulative effects analysis on each individual resource must be done either in a programmatic or a project-specific NEPA document or a combination thereof. If a complete cumulative effects analysis is not done at the programmatic stage—as happened here due to the absence of any locational information—it must be done each time a drilling project is undertaken. Council on Environmental Quality, Effective Use of Programmatic NEPA Reviews, p. 15 (December 18, 2014). While we appreciate and understand the enormity of the task before the BIA, the cumulative effects analysis cannot be left incomplete in the EIS and then not be more fully developed during the leasing process once more complete information and reasonably foreseeable developments become known or can be reasonably projected. If BIA intends to "tier" to an admittedly incomplete programmatic cumulative effects analysis at the project stage without further and detailed cumulative effects analysis, it will deprive the public and the agency decisionmaker of necessary information intended to be supplied through NEPA and leave the process open to lawsuits.

3. **Insufficient Analyses of Environmental Consequences**. While Chapter 4 of the DEIS provides a good start of the environmental consequences of each alternative, it is lacking in several respects:

- The environmental consequences are discussed as if the COAs pertaining to each alternative are certain. However, the DEIS makes clear that COAs for any permit (regardless of the alternative) are actually uncertain: "The EIS does not list the exact set of COAs that would be applied to each permit under an alternative. Under all alternatives, the BIA may waive COAs or apply additional COAs based on site-specific determinations." DEIS, p. 2-8. This lack of certainty as to the COAs, and the failure to consider that lack of certainty in the impacts, renders the rest of the EIS deficient and inaccurate.

- The number and types of wells differ among the alternatives, yet those quantitative differences and their differing impacts on specific environmental resources (e.g., particular rivers, vegetation types) are not reflected in any quantitative fashion in the Chapter 4 discussions.

- Infrastructure relative to oil and gas activities (including pipelines, roads, facilities, etc.) are only nominally mentioned yet are some of the biggest contributors to environmental degradation.

- The historical lack of inspections of leases and oil and gas activities, and enforcement of violations, are also not considered in the discussion. Unless there is also a clear and effective commitment of resources for inspections and enforcement, an analysis of environmental impacts due to lack of compliance should also be part of the discussions and cumulative effects. Mitigation measures, such as COAs, are simply not adequate unless they are effectively enforced. Council on Environmental Quality, Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact, 76 Fed. Reg. 3848-51 (Jan. 21, 2011).

4. **Inclusion of Monitoring and Enforcement**. We recommend that each alternative include a comprehensive assessment of the risk of non-compliance, together with measures for monitoring and enforcement and strategies for ensuring sufficient capacity to perform enforcement. As you know, a historical issue has been the insufficient capacity of BIA to provide adequate field oversight. With the additional protections in Alternative 4 and a portion of Alternative 3, a robust monitoring program (with effective penalties for non-compliance) is crucial. Furthermore, an effective monitoring and enforcement program is required in the CEQ regulations to ensure that operators fully comply with the mitigation measures that are ultimately applied. 40 CFR 1505.2(c).

In developing measures for enhanced monitoring and enforcement, we again ask that BIA consider sharing the enforcement/environmental protection role for the oil and gas activities with another state or federal agency, such as the BLM or the Oklahoma Corporation Commission (which is allowed under the BIA regulations, 25 CFR 226.1). Precedent exists for this consideration. For example, the separation of management responsibilities from oversight and enforcement was undertaken with the creation of the Bureau of Safety and Environmental Enforcement and the Bureau of Ocean Energy Management as part of the reorganization of the Bureau of Ocean Energy Management, Regulation and Enforcement.

As you know, the Evaluation conducted by the Office of Inspector General for the U.S. Department of the Interior in October 2014 recommended that BIA enter into an MOU with BLM to perform essential oil and gas operations on BIA's behalf. We understand that in response to the Evaluation, BIA has received additional funding to add four more Petroleum Engineering Technicians and that all PETs have or will complete BLM training for field inspections. While this is a good start, more is needed to be done. We recommend that the BLM training be mandatory for all PETs, that one or more of the PETs be assigned to perform oversight of the COAs imposed on drillers in Osage County, and that additional assistance for monitoring and enforcement be obtained from BLM or OCC.

5. **Conditions of Approval**. As noted above, the DEIS allows the BIA to waive COAs based on site-specific determinations but without any criteria or consideration of impacts. DEIS, p. 2-8. At a minimum, no COA should be allowed to be waived without BIA Superintendent approval and then only under a stringent set of circumstances (such as no environmental impact at the site or cumulatively, and after consultation and input from the landowner). Without strict criteria, waivers could be arbitrary, inconsistent and potentially subject to pressures from operators or third parties.

We also request that the COAs be made applicable to existing leases and they not be waived or exempted merely due to timing of leases or APDs.

As to the COAs themselves, we submit the following comments in furtherance of the purpose and need of the proposed action, including "protection of the environment," "protection of the health and safety of the Osage people," and "prevents pollution" (DEIS, p. 1-3):

a. All of the Action Alternatives. We recommend that the following new COAs be added to each of the Action Alternatives:

(i) Prohibition of venting H2S;

(ii) Co-location of well pads, roads, pipelines, facilities and other infrastructure where feasible;

(iii) Remediation of any brine scarring; and

(iv) Robust monitoring and inspection of activities, including annual unannounced audit of operations by an independent third-party environmental professional paid for by the operator. After receipt of the audit produced pursuant to this COA, BIA should promptly review and make an appropriate disposition of the audit, including potential enforcement of violations and remediation of impacted areas.

b. Alternative 2 and Alternative 3 (high-density). As stated previously, all of the COAs applicable to the No Action Alternative should be added to Alternative 2 and Alternative 3 (high-density). These COAs are basic environmental and safety protections (some of which are legally required) which take minimum time and expense to implement and do not interfere with overall oil and gas development. There is no reasonable basis for not applying them. In addition, COAs 29, 30, 33, and 34 should be added to Alternative 2 and Alternative 3 (high-density).

c. Alternative 3 (low-density) and Alternative 4. We recommend that the following new COAs be added to Alternative 3 (low-density) and Alternative 4 in order to achieve the intended benefit of minimizing environmental degradation:

(i) Application of BLM's gold book BMPs;

(ii) Baseline testing of proximate groundwater wells;

(iii) Any approved flaring should be done in a manner to eliminate the visibility of the flame and produced light using a closed-combustion chamber system. Current best industry standards for flares follow API guidelines and utilize "clean-burn variable tip flare" technology;

(iv) Burial of power lines to the extent practicable; and

(v) For the protection of native grassland bird species:

- Elimination of vertical structures except where no alternatives exist;
- Installation of quality mufflers on pumpjacks and compressors that are powered by internal combustion engines, and/or shield such equipment and loud electric motors;
- Avoidance of traffic and other disturbances within several hundred yards of known booming grounds (leks) during the breeding months of March through May, in the morning from two hours prior to sunrise until three hours following sunrise; and
- Consolidation of facilities and roads and locating them at the edge of open prairie and off of prairie ridgelines and hilltops.

6. **Application of the Mitigation Hierarchy in Each Action Alternative**. As detailed in our previous comment letters, the mitigation hierarchy should be applied in each of the Action Alternatives, including: (i) landscape-scale review and evaluation of cumulative impacts; (ii) avoidance of oil and gas development in sensitive environmental and cultural areas; (iii) minimization efforts to reduce impacts (such as co-location of facilities and limited leasing in impacted areas); and (iv) for impacts which cannot be avoided or further minimized, effective mitigation measures and offsets. While the mitigation hierarchy is fairly well applied in Alternative 4 (in particular, through landscape scale avoidance), it is largely absent in Alternatives 2 and 3 except as to the limited sensitive areas in Alternative 3. We believe that applying the hierarchy is a basic and essential approach to decision-making, which will result in achievement of the purpose and need through effective protection of the environment and the natural resources of the Osage Nation.

7. **Alternative-Specific Comments**.

a. Alternative 2. As has already been discussed above, we do not believe that this alternative is legally sufficient and should be removed from consideration.

b. Alternative 3. While TNC conceptually supports "high-density versus low-density" as *one* consideration in planning, the driving considerations should be landscape-scale review and evaluation of cumulative impacts to resource values, together with public safety concerns. An existing high-density area should not be presumed to be without (or with only minimal) resources worthy of protection with appropriate COAs. In fact, already impacted areas, like high density areas, are in need of basic mitigation measures to prevent severe degradation. We encourage BIA

to reconsider its exclusive focus on "high versus low" based on artificial geographic boundaries and instead to supplement that factor with an approach which also accounts for natural resources, potential ecological impacts, and public health. And, as discussed previously, we urge that BIA eliminate the conversion allowance for drilling in low density areas which will exceed the density threshold, so as to prevent any perverse incentives and potential for manipulation which could lead to the widespread degradation of these less disturbed areas.

Furthermore, as previously discussed, we do not believe this alternative is legally sufficient as to the application of Alternative 2 COAs to high-density areas. If Alternative 3 becomes BIA's preferred alternative, we request that the No Action Alternative COAs and COAs 28 and 31 apply in high density areas (together with the other COAs recommended in paragraphs 5.a and 5.b above), and that the allowance conversion discussed above be eliminated.

With respect to the sensitive areas, we request that all of the sensitive areas identified in Alternative 4 be included as sensitive areas in Alternative 3. At a minimum, we request that Alternative 3 apply the low-density COAs to all of the Alternative 4 sensitive areas (even if they are considered high-density) and that those COAs be mandatory.

We also request that TNC's Tallgrass Prairie Preserve be listed as a sensitive area in Alternative 3 and that no permits for new ground-disturbing activities be approved. The preserve was originally listed as a sensitive area in Alternative 3 in the preliminary draft alternatives published in 2017 but has been removed as a sensitive area in Alternative 3 of the DEIS without any explanation for this unjustified change. As the DEIS itself acknowledges, the Tallgrass Prairie Preserve is the largest protected remnant of tallgrass prairie left on earth. DEIS, p. 3-57. The DEIS heavily references the ecological resources of our preserve, together with its recreational and visual benefits. "Management of the Tallgrass Prairie Preserve will continue to improve ecological integrity of this stronghold of native tallgrass prairie in the planning area." DEIS, p. 3-62. The preserve is clearly a sensitive area, having been brought to its current state through intensive ecological management, but continues to be at risk of environmental degradation with the existing oil and gas activities – and at even higher risk if more ground-disturbing activities are allowed. The existing activities create ongoing challenges in our management of the preserve, including significant impacts and contamination to soil/water/air, fragmented landscapes, and significant impacts to ABB and native grassland bird species due to continual disturbances. Our prescribed fire program at the preserve, which is critical to managing the prairie, is a particular challenge amidst the multitude of oil and gas wells and pipelines on the preserve. We have worked long and hard with operators and we respect the rights of the Osage mineral estate. However, this is a fragile landscape that can be, and has been, easily devastated and that requires additional protection.

c. Alternative 4. As previously noted, this is TNC's preferred alternative together with the additional COAs requested in paragraph 5 above. We appreciate that no permits will be approved for new ground-disturbing activities in sensitive areas, and we ask that no exceptions to that prohibition be allowed. In addition, we ask that all applicable COAs be made mandatory for sensitive areas and that no waivers be permitted.

8. **Biological Opinion**. TNC appreciates that BIA has obtained a biological opinion on the American burying beetle ("ABB") and has made it available for public comment. We are

encouraged by the reasonable and prudent measures and terms and conditions included in this Biological Opinion and urge BIA to ensure that each project covered by this program is required to comply with each of these measures, terms, and conditions. To the extent that Alternative 2 and Alternative 3 in high density areas are not covered by this Biological Opinion, unless BIA can make a definitive "no effect" determination for the ABB, each project covered by these alternatives will need to undergo a project-specific consultation and development of enforceable reasonable and prudent measures and terms and conditions. As happened with this programmatic action, we ask that BIA make available such project-specific Biological Opinion for public comment as part of each project's NEPA process. In addition, since this Biological Opinion expires in 2026 and does not include any other species covered by the Endangered Species Act, we ask that BIA take public comment as part of its NEPA process whenever a future programmatic consultation on the ABB or a project-specific consultation on any non-ABB species might occur.

Thank you again for the opportunity to submit comments. This process continues to be long and complex, and we appreciate BIA's efforts. If you have any questions or would like any additional information, please feel free to contact me at 918-585-1117 or at mfuhr@tnc.org.

Sincerely,

Michael Fuhr
Oklahoma State Director