

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT New Mexico State Office

Quarter 1 2022 Competitive Oil and Gas Lease Sale Environmental Assessment, DOI-BLM-NM-P000-2021-0001-EA

FINDING OF NO SIGNIFICANT IMPACT

BACKGROUND

The Bureau of Land Management (BLM) prepared an Environmental Assessment (EA) (DOI-BLM-NM-P000-2021-0001-EA) analyzing the effects of leasing five nominated oil and gas lease parcels (520.8 acres) in Chaves and Lea Counties, New Mexico, for sale in the Quarter 1 2022 Pecos District Office (PDO) Competitive Oil and Gas Lease Sale (hereafter referred to as the “Lease Sale”). The BLM PDO includes the Carlsbad Field Office (CFO) and Roswell Field Office (RFO).

Leasing the five nominated lease parcels, with stipulations and lease notices derived from the Carlsbad Resource Management Plan (RMP) (BLM 1988),¹ and the Roswell Approved RMP and Record of Decisions (BLM 1997b), as amended (BLM 1997a, 2008a), are analyzed in the EA under the Proposed Action. Under the Proposed Action, the BLM Authorized Officer has the authority to selectively lease, or to defer parcels, based on the analysis of potential impacts presented in the Lease Sale EA. A No Action Alternative was also analyzed in the EA, wherein no parcels would be offered for lease and current management would continue. Twenty-six issues identified during the scoping process (see EA Section 1.5) are analyzed in a succinct fashion and presented as “Issues Analyzed in Brief” (AIB) in EA Section 3.5. Four issues concerning air quality pollutants and emissions, greenhouse gas emissions (GHG), surface and groundwater quantity, and dunes sagebrush lizard (*Sceloporus arenicolus*) (DSL) and lesser prairie-chicken (*Tympanuchus pallidicinctus*) (LPC) are carried forward as “Issues Analyzed in Detail” in EA Section 3.6.

This Finding of No Significant Impact (FONSI) has been prepared for the Proposed Action.

FINDING OF NO SIGNIFICANT IMPACT

Based on the EA (DOI-BLM-NM-P000-2021-0001-EA), which analyzes potential impacts from the Lease Sale, and considering the criteria for significance provided by the Council on Environmental Quality (CEQ) regulations² at 40 Code of Federal Regulations (CFR) 1508.27, I have determined that leasing the 520.8 acres of nominated lease parcels, under the Proposed Action, does not constitute a major federal action that would have a significant effect on the quality of the human environment. Therefore, an environmental impact statement (EIS) is not required.

¹ Full citations for the literature cited in this FONSI are in EA Chapter 6.

² References to the CEQ regulations throughout the EA and FONSI are to the regulations in effect prior to September 14, 2020. The revised CEQ regulations effective as of September 14, 2020, are not referred to in the EA or FONSI because the NEPA process associated with the April 2021 lease sale began prior to this date.

The Proposed Action, to lease parcels for oil and gas development, and its effects have been evaluated in a manner consistent with the CEQ regulations for determining “significance.” Per 40 CFR 1508.27, a determination of significance as used in the National Environmental Policy Act (NEPA) requires consideration of both context and intensity. Context refers to the relative context in which the action would occur, such as society as a whole, the affected region, affected interests, and the locality. Intensity refers to the severity of the impact. This FONSI is based on the context and intensity of the effects of leasing.

AFFECTED AREA

Under the Proposed Action, the BLM would lease five nominated lease parcels involving 520.8 acres of BLM-administered federal minerals. The nominated lease parcels consist of private and BLM-administered surface lands (see EA Table 2.1).

The nominated lease parcels are within an area designated as open to oil and gas leasing under standard terms and conditions and special stipulations in the Carlsbad RMP (BLM 1988), and the Roswell RMP (BLM 1997b), as amended (BLM 1997a, 2008a). Lease stipulations and lease notices are attached to the nominated lease parcels, with the potential impacts of the Proposed Action analyzed accordingly. Environmental Assessment Appendix A provides a list of the nominated lease parcels and the applicable stipulations and notices.

Although the act of leasing the nominated lease parcels does not authorize development of the parcels, by leasing the parcels the BLM grants the lessee with the right to use so much of the leased lands as is necessary to explore and potentially develop the parcels for oil and gas production. Therefore, under the Proposed Action, the potential impacts associated with the potential future development of the nominated lease parcels for oil and gas exploration and development are analyzed. Development of a parcel leased by the BLM is not permitted until the BLM approves a completed Application for Permit to Drill (APD) package (Form 3160-3) submitted by the lessee. APDs are subject to additional environmental review under NEPA and CEQ regulations (43 CFR 1500).

In the EA, the future potential development of the nominated lease parcels is projected to result in two horizontal wells, approximately 22.5 acres of surface disturbance, and total production of an estimated 840,000 barrels of oil and 4,898,000 thousand cubic feet of gas (refer to EA Section 3.2 for methodology for estimating well numbers, potential production volumes, and surface disturbance associated with the future potential development of the nominated lease parcel).

The nominated lease parcels are located in Chaves and Lea Counties, New Mexico. Within these counties, as well as the area immediately surrounding the nominated lease parcels, there already exists extensive oil and gas development and production. Oil and gas development and its attendant industry are identifying components of the economic and social fabric of the region.

DEGREE OF EFFECTS

The following discussion is organized around the four criteria described at 40 CFR 1501.3(2) i-iv.

1. Both short- and long-term effects.

Both short- and long-term effects related to the Proposed Action are disclosed and analyzed in EA Section 3.5 (for the issues analyzed in brief) and Section 3.6 (for issues analyzed in detail). Short-term effects are defined as those that cease after well construction and completion (30–60 days) or cease after interim reclamation (2–5 years); long-term effects are those associated with operation (e.g., noise) or otherwise extend beyond the short-term time period (for example, surface disturbance subject to interim or final reclamation). Table 1 summarizes short- and long-term effects associated with the issues analyzed in detail (see EA Section 3.6), and the incremental contribution of the Proposed Action to reasonably foreseeable environmental trends and planned actions.

Table 1. Summary of Duration of Effects and Associated Significance Conclusions

Issue (EA Section)	Short-term Effects and Significance Conclusions	Long-term Effects and Significance Conclusions
<p>Issue 1: How would future potential development of the nominated lease parcels impact air quality (particularly National Ambient Air Quality Standards [NAAQS] and volatile organic compounds [VOCs]) in the analysis area? (EA Section 3.6.1)</p>	<p>Air quality effects are anticipated to be at their highest level during the 30- to 60-day well completion phase and are therefore short-term in nature.</p> <p>Emissions associated with development of five wells would range from a 0.01% increase in particulate matter 10 microns in diameter or smaller (PM₁₀) to a 0.07% increase in nitrogen oxide(s) (NO_x) in the tri-county (Chaves, Eddy, and Lea Counties) analysis area. This represents the maximum increase in pollutant emissions characteristic of the first year of construction and start of operation. For context, reasonably foreseeable development of federal wells in the analysis area in a given year would be estimated to result in a 0.47% to 4.36% increase in PM₁₀ and NO_x, respectively. Reasonably foreseeable development of all wells in the analysis area in a given year would be estimated to range from a 1.17% to 10.91% increase in PM₁₀ and NO_x, respectively.</p> <p>Future potential development of the nominated lease parcels would also result in short-term, localized impacts to air quality at nearby residences due to criteria pollutants, VOC, and hazardous air pollutant (HAP) emissions. Construction activities would be one of the primary sources of particulate matter emissions; however, the use of best management practices can reduce off-site effects from fugitive dust.</p>	<p>Following well construction and completion phases, emissions are anticipated to decline during operations and maintenance as the need for earth-moving and heavy equipment declines.</p> <p>Ongoing operations of well sites would be subject to state and federal permitting requirements, which ensure compliance with air quality emission standards.</p>
<p>Issue 2: How would future potential development of the nominated lease parcels contribute to GHG emissions and climate change? (EA Section 3.6.2)</p>	<p>All GHG emissions are considered long-term effects due to the long lifespan in the atmosphere and their contribution to long-term climate trends such as desertification, loss of biodiversity, and changes to freshwater availability.</p>	<p>The EA identifies potential adverse effects to climate change through several methods, such as quantifying, as far as practicable, the reasonably foreseeable GHG emissions and social cost of GHG emissions (SC-GHG) as a proxy for assessing climate impacts. Compared with emissions from other existing and estimated foreseeable federal oil and gas development, the</p>

Issue (EA Section)	Short-term Effects and Significance Conclusions	Long-term Effects and Significance Conclusions
		<p>estimated emissions for the life of the leases in the Proposed Action is between 0.017% and 0.036% of federal fossil fuel authorization emissions in the state and between 0.006% and 0.015% of federal fossil fuel authorization emissions in the nation. In summary, potential GHG emissions from the Proposed Action could result in GHG emissions of 0.653 MT CO₂e over the life of the leases. Using these figures, the SC-GHG from the Proposed Action is estimated to range from \$9.2 to \$97.8 million. There are no established thresholds for NEPA analysis to contextualize the quantifiable GHG emissions or social cost of an action in terms of the action's propensity to affect the climate, incrementally or otherwise. However, the BLM acknowledges that all GHGs contribute incrementally to the climate change phenomenon and has tried to display the GHG emissions and SC-GHG in the EA in comparison with commonly understood emissions sources such as motor vehicles and home heating equipment. Due to the cumulative and global nature of climate change, it is not possible for the BLM to determine whether the emissions associated with the Proposed Action would have a "significant" or "non-significant" effect on the human environment. However, preparation of an EIS solely for the sake of analysis of the issue of climate change is not warranted as any disclosure in such an EIS would be the same as that prepared for this EA, and would not better inform decision-makers or the public.</p>
<p>Issue 3: How would future potential development of the nominated lease parcels impact surface and groundwater quantity? (EA Section 3.6.3)</p>	<p>Water uses associated with development of the nominated lease parcels would occur during the 30- to 60-day well construction and completion period (such as hydraulic fracturing) and during the 20-year operation period (e.g., water use associated with dust control re-completion, workover, etc.).</p> <p>While much of the water use associated with oil and gas development is expected to occur within a 30- to 60-day construction period, the effect of this use on groundwater aquifers and surface waters is expected to last until recharge occurs. Due to uncertainty about water sources and recharge rates, it is assumed that all water use associated with oil and gas development is likely to be a long-term effect. Additionally, the ability for aquifer recharge may be affected by drought conditions associated with climate change.</p>	<p>Drilling and completion of two horizontal wells on the nominated lease parcels are estimated to use approximately 156 acre-feet (AF) of groundwater. Water use associated with drilling and completion of each well is expected to occur within a 30- to 60-day period. Groundwater use associated with future potential development of the leases would result in increases of 0.03% to the tri-county analysis area total water use (620,416 AF), 0.03% to the tri-county analysis area total groundwater use (546,195 AF), and 0.16% over 2015 water use in the mining category for the tri-county analysis area (95,800 AF). The total estimated water use for drilling and completion of the five horizontal wells in the nominated lease parcels (156 AF) in a single year represents approximately 0.56% of the 2019 oil and gas water use reported to FracFocus (34,833 AF) (BLM 2020a).</p> <p>Assuming a 20-year development scenario for the Proposed Action</p>

Issue (EA Section)	Short-term Effects and Significance Conclusions	Long-term Effects and Significance Conclusions
		<p>(consistent with the reasonably foreseeable development [RFD] time frame), the water use associated with development of the lease parcels would be approximately 7.8 AF for any given year. Projected future potential development of the lease parcels would result in a 0.001% increase of the tri-county analysis area total water use (620,416 AF), 0.001% of the tri-county analysis area total groundwater use (546,195 AF), and a 0.008% increase over 2015 water use in the mining category for the tri-county analysis area (95,800 AF). The total estimated water use of 8 AF in a single year represents approximately 0.031% of the 2019 oil and gas water use reported to FracFocus (34,833 AF) (BLM 2020a).</p> <p>Long-term water requirements during operation under either scenario would depend on the project details but could include coolant for internal combustion engines and dust suppression on roads or well pads.</p> <p>Produced water associated with development of the lease parcels is estimated at approximately 2,907,000 barrels of water. Produced water would be disposed of at regulated and permitted commercial facilities (such as saltwater disposal wells).</p>
<p>Issue 4: How would future potential development of the nominated lease parcels affect DSL and LPC? (EA Section 3.6.4)</p>	<p>None of the nominated lease parcels are within the DSL habitat distribution area (analysis area).</p> <p>Nominated lease parcel 408 (320.8 acres) is fully located within the 218,126-acre LPC Sparse and Scattered Population Area (SSPA) (Table 3.28) and is approximately 33.68 miles southwest of the LPC Primary Population Area (PPA). None of the remaining nominated lease parcels are located within LPC habitat management areas. Short-term effects during construction and completion activities would include increased noise disturbance and increased human presence potentially leading to temporary avoidance of proximal habitat.</p> <p>Well construction and completion activities (30–60 days) associated with these parcels would likely result in a decrease of LPC habitat quality due to increased human presence, noise disturbance, and vegetation removal. Construction-related traffic would have the potential for direct mortalities.</p> <p>An appropriate development distance from suitable and/or occupied habitat would be determined by the BLM at the lease development stage, following a review of data including but not limited to habitat suitability models, occupied dune</p>	<p>Future potential development of nominated lease parcel 408 could be reasonably expected to directly impact approximately 4.5 acres of surface disturbance within the 218,126-acre LPC SSPA, which represents approximately 0.002% of this area.</p> <p>None of the nominated lease parcels are within the DSL habitat distribution area (analysis area), therefore impacts are not anticipated. Effects related to surface disturbance would be long-term, continuing until well operations cease and habitat is successfully reclaimed. Surface disturbance from future potential development of the nominated lease parcels would likely result in a decrease of habitat quality from human presence, habitat fragmentation, and loss of suitable LPC habitat. Surface disturbance from future potential development of the nominated lease parcels would likely result in a decrease of habitat quality from human presence, habitat fragmentation, and loss of suitable habitat LPC. Following reclamation, these effects are expected to decrease over time; however, the degree and speed of recovery is anticipated to vary depending on site-specific ecological conditions and environmental factors. Operations and maintenance-related traffic, while</p>

Issue (EA Section)	Short-term Effects and Significance Conclusions	Long-term Effects and Significance Conclusions
	survey data, general biological surveys, aerial imagery, and species-specific survey habitat occupancy data (BLM 2008a, n.d.-c; Laurencio and Fitzgerald 2010). The BLM would apply conditions of approval to minimize potential impacts from construction .	minimal, would also have the potential for direct mortalities. COAs such as speed limits may be applied to minimize this risk. In conjunction with the stipulations, lease notices, and standard terms and conditions applied to nominated lease parcel 408, site-specific analysis and pre-disturbance biological surveys at the lease development stage would contribute to avoidance, minimization, and reduction of effects to DSL and LPC habitat. Where implemented, restoration projects outlined in EA Section 3.3 would have countervailing impacts on habitat fragmentation and long-term disturbance to DSL and LPC habitat.

2. Both beneficial and adverse effects.

Potentially beneficial and adverse impacts related to the Proposed Action are disclosed and analyzed in EA Section 3.5 (for the issues analyzed in brief) and Section 3.6 (for issues analyzed in detail). The potential for adverse impacts to the resources examined in AIB-1 through AIB-26 would be minimized with the application of stipulations, consideration of parcel proximity to sensitive resources, and the likelihood for sensitive resources to occur.

Table 2 summarizes the issues analyzed in detail (see EA Section 3.6), including the beneficial and adverse effects associated with each issue, and the incremental contribution of the Proposed Action to reasonably foreseeable environmental trends and planned actions.

Table 2. Summary of Beneficial and Adverse Impacts of Issues Analyzed in Detail

Issue Analyzed in Detail (EA Section)	Impact Summary (both Beneficial and Adverse) and Significance Conclusions
Issue 1: How would future potential development of the nominated lease parcels impact air quality (particularly NAAQS and VOCs) in the analysis area? (EA Section 3.6.1)	<p>Additional NO_x and VOCs from five wells (a 0.07% and 0.01% increase over existing annual emissions, respectively) would incrementally add to ozone (O₃) levels within the analysis area, which recently exceeded NAAQS in Chaves and Lea Counties. Given the size of the project relative to other activities in the area, it is not expected that the Proposed Action would lead directly to additional NAAQS exceedances of O₃ in Lea County.</p> <p>Future potential development of the nominated lease parcels would also result in localized impacts to air quality at nearby residences due to criteria pollutant, VOC, and HAP emissions. The nominated lease parcels do not contain residences. The nearest residences are approximately 0.33 mile northwest of nominated lease parcel 407. Future potential development of the nominated lease parcels would result in short-term local area increases of pollutant emissions, including particulate matter (particulate matter 2.5 microns in diameter or smaller [PM_{2.5}] and PM₁₀), NO_x, VOCs, and O₃ (as a secondary pollutant), lasting an average of 30 to 60 days. Air quality is dependent on not only the quantity of air pollutants but also environmental conditions (humidity, wind direction and speed, temperature) that influence concentration and dispersion of pollutants.</p> <p>Future potential development of the nominated lease parcels is estimated to result in between 0.31 and 0.06 ton per year of HAP emissions from combined construction and operation of the wells during the first year, which would be the maximum annual rate of HAP emissions. The Clean Air Act defines a major source for HAP emissions to be one emitting 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs (BLM 2019a). Because this is prior to implementation of any</p>

Issue Analyzed in Detail (EA Section)	Impact Summary (both Beneficial and Adverse) and Significance Conclusions
	<p>applicable federally enforceable controls, this represents a conservatively high estimate of potential HAP emissions. Therefore, it is not expected that the Proposed Action would be a major source of HAP emissions. Additionally, total HAP emissions from the Proposed Action would be distributed over time and space.</p> <p>The future potential development of the nominated lease parcels comprises 0.03% of the RFD scenario (16,000 wells) and, assuming concurrent development, would be 0.63% of annual RFD (800 wells). Reasonably foreseeable trends and planned actions would incrementally contribute to increases in criteria pollutants between 1.17% to 10.91% of existing annual emissions of all well development, federal and non-federal (see EA Table 3.15). Localized and short-term effects on air quality for nearby residences from emissions of particulate matter, NO_x, VOCs, and HAPs are expected; however, because well development varies (i.e., permit approval, well pad construction, spudding, and completion), the phases of development may not occur in succession but may be spread out in development over time.</p> <p>As such, the incremental addition of criteria pollutants and VOCs over a period of 20 years would not be expected to result in any direct exceedances of the NAAQS or New Mexico Ambient Air Quality Standards for any criteria pollutants in the analysis area. These areas have not been formally declared non-attainment by the U.S. Environmental Protection Agency through the State's recommendation. The BLM will continue to monitor these areas and participate in any O₃ initiative meetings and strategies that the State recommends.</p>
<p>Issue 2: How would future potential development of the nominated lease parcels contribute to GHG emissions and climate change? (EA Section 3.6.2)</p>	<p>The EA identified potential adverse effects to climate change through several methods, such as quantifying, as far as practicable, the reasonably foreseeable GHG emissions and SC-GHG as a proxy for assessing climate impacts. Compared with emissions from other existing and estimated foreseeable federal oil and gas development, the estimated emissions for the life of the leases in the Proposed Action is between 0.017% and 0.036% of federal fossil fuel authorization emissions in the state and between 0.006% and 0.015% of federal fossil fuel authorization emissions in the nation. In summary, potential GHG emissions from the Proposed Action could result in GHG emissions of 0.653 MT CO₂e over the life of the leases. Using these figures, the SC-GHG from the Proposed Action is estimated to range from \$9.2 to \$97.8 million. There are no established thresholds for NEPA analysis to contextualize the quantifiable GHG emissions or social cost of an action in terms of the action's propensity to affect the climate, incrementally or otherwise. However, the BLM acknowledges that all GHGs contribute incrementally to the climate change phenomenon and has tried to display the GHG emissions and SC-GHG in the EA in comparison with commonly understood emissions sources such as motor vehicles and home heating equipment. Due to the cumulative and global nature of climate change, it is not possible for the BLM to determine whether the emissions associated with the Proposed Action would have a "significant" or "non-significant" effect on the human environment. However, preparation of an EIS solely for the sake of analysis of the issue of climate change is not warranted as any disclosure in such an EIS would be the same as that prepared for this EA, and would not better inform decision makers or the public.</p>
<p>Issue 3: How would future potential development of the nominated lease parcels impact surface and groundwater quantity? (EA Section 3.6.3)</p>	<p>Future potential development of the five horizontal wells in the nominated lease parcels is estimated to use approximately 156 AF of groundwater. Assuming a 20-year development scenario (consistent with the RFD time frame), the water use associated with development of the lease parcels would be approximately 8 AF for any given year, which represents a 0.001% increase of the tri-county analysis area total water use (620,416 AF), 0.001% of the PDO analysis area total groundwater use (546,195 AF), and a 0.16% increase over 2015 water use in the mining category for the PDO analysis area (95,800 AF).</p> <p>The largest water use category within the analysis area is industrial, comprising 75% of all water use within the tri-county analysis area. Development of the RFD, which comprises all reasonably foreseeable future actions, would require 499,200 AF water, or 24,960 AF of water in any given year if all wells were drilled horizontally. This is about 4% of the tri-county analysis area 2015 total water withdrawals (620,416 AF, which already includes past and present water use). Annual water use associated with future potential development of the Proposed Action would comprise 0.32% of the total RFD. If more water-intensive stimulation methods (e.g., slickwater fracturing) are implemented or if laterals become longer, aggregate water use could increase from estimates provided in the <i>2020 Water Support Document for Oil and Gas Development in New Mexico</i> (BLM 2020a). Alternatively, water use estimates could be lower if produced water is reused or recycled for use in hydraulic fracturing or if methods such as nitrogen completions are implemented.</p>

Issue Analyzed in Detail (EA Section)	Impact Summary (both Beneficial and Adverse) and Significance Conclusions
<p>Issue 4: How would future potential development of the nominated lease parcels affect DSL and LPC? (EA Section 3.6.4)</p>	<p>None of the nominated lease parcel are within the DSL habitat distribution area (analysis area). While development of the RFD would result in increased habitat fragmentation beyond existing habitat fragmentation levels, surface disturbance associated with future potential development of the nominated lease parcels (five wells) would represent about 0.009% of the RFD (16,000 wells) and would occur outside of the areas of greatest conservation concern for this species. Thus, no adverse or beneficial impacts are expected to this species from the future potential development of the nominated lease parcels.</p> <p>Approximately 320.80 acres, or 100% of nominated lease parcel 408, are located within the 218,126-acre LPC SSPA (Table 3.28) and is approximately 33.68 miles southwest of the LPC PPA. None of the remaining nominated lease parcels are located within an LPC management areas. Depending on the selected location of surface disturbance, development of nominated lease parcel 408 could result in up to 4.5 acres of surface disturbance within the LPC SSPA, and a potential decrease in LPC habitat quality from human presence and loss of vegetation (see EA Table 3.28). Both effects would be considered long-term. No leks were found within the nominated lease parcels or within 2 miles of nominated lease parcel 408 (BLM 2020e). Colocation of development with existing disturbance during site selection has the opportunity to decrease direct and indirect effects on this species. Stipulation SENM-S-39, which requires a plan of development to be submitted for the entire lease, is applied to parcel 408 (see EA Table 2.1, 3.28, and Appendix B). For LPC, habitat fragmentation and increased density of development from the RFD risk reducing habitat viability beyond species-specific thresholds. Increased fragmentation from development of the RFD is expected within the LPC Isolated Population Area (IPA) and SSPA. Future potential development associated with the Proposed Action (an estimated five wells, or one well per parcel) is approximately 0.009% of the RFD (16,000 wells) and would occur within the LPC IPA. Where implemented, restoration projects would have countervailing impacts on habitat fragmentation and long-term disturbance to DSL and LPC habitat.</p>

EA Section 3.5 also discloses the potential for beneficial impacts, including employment opportunities and revenue streams for federal, state, and local governments (see AIB-24, economic activity) and fluid mineral availability (see AIB-11).

3. *Effects on public health and safety.*

In the EA, public health and safety-related effects are described and analyzed in AIB-1 (groundwater quality), AIB-2 (surface water quality), AIB-3 (induced seismicity), AIB-23 (human health and safety), AIB-24 (economic activity), AIB-25 (quality of life), Issue 1 (air quality), and Issue 2 (GHGs and climate change). Development and construction may contribute to public health and safety-related risks including occasional fire starts; spills of hazardous materials, hydrocarbons, produced water, or hydraulic fracturing fluid and corresponding potential contamination of air, soil, or water; traffic congestion and collisions from commercial vehicles and heavy use, especially south and east of Carlsbad along NM State Road 128 and U.S. Route 285; infrequent industrial accidents; presence of hydrogen sulfide; or increased levels of fugitive dust (PM₁₀). EA Section 3.6.1 (Issue 1) explains that the Proposed Action would not result in an exceedance of any air quality-related standard that may impact public health and safety. Additionally, Section 3.5 discloses that the Proposed Action would not result in significant impacts on other resources, including water quality (see AIB-1 and AIB-2) and induced seismicity (see AIB-3).

Leasing of the nominated lease parcels would not result in significant public health and safety-related effects vis-à-vis the aforementioned issues. Leasing for oil and gas, and subsequent exploration and development, is a regular and ongoing activity in the region. Estimated future potential development of the nominated lease parcels (five wells) is 0.009% of the total past, present, and reasonably foreseeable future

oil and gas development in the New Mexico portion of the Permian Basin (57,006 wells). In addition, the regulatory program associated with these issues successfully addresses the adverse effects of primary concern, and the BLM's authority under standard lease terms and conditions allows the BLM to attach conditions of approval (which typically reduce or eliminate adverse effects on resources) to activities authorized at the time of lease development.

4. *Effects that would violate Federal, State, Tribal, or local law protecting the environment.*

None of the effects associated with the Proposed Action would violate any federal, state, tribal, or local law protecting the environment. This Lease Sale is consistent with applicable laws, land management plans, and policies. The public was given the opportunity to participate in the environmental analysis process during:

- an external public scoping period from August 31 to October 31, 2021;
- a Draft EA public review and comment period from October XX to November XX, 2021; and
- a Lease Sale Notice will be made available for a 30-day protest period.

In compliance with NEPA and the National Historic Preservation Act (NHPA), the BLM PDO is consulting with and conducting ongoing government-to-government consultation with tribes (see also EA Section 3.5 AIB-20 and Section 4.2).

NHPA

The Proposed Action would be in compliance with Section 106 of the NHPA (for details, see EA Section 3.5, AIB-19). The BLM CFO and RFO conducted a records review and analysis of the area of potential effects for the five nominated lease parcels. The review found that approximately 10.51 acres (5%) of the 200 acres of the nominated lease parcels within the CFO have been previously surveyed for cultural resources. Approximately 22.48 acres (7.0%) of the 320.8 acres of the nominated lease parcels in the RFO have been previously surveyed for cultural resources. The review found no previously recorded cultural resources documented within the nominated lease parcel in the RFO. However, a historic road and windmill appear on the 1951 King Camp map. Due to low archaeological survey coverage and minimal overall ground disturbance from development within the nominated lease parcels, there is potential for identifying previously unrecorded sites. The historic road still exists today and is currently still in use for mineral extraction and ranching activity. The probability of discovering previously unrecorded historic properties in this area is high. At this time, the BLM CFO and RFO determined that there would be *no effect* to historic properties as a result of the undertaking (see EA Section 4.3). The nominated lease parcels have been assigned lease stipulation WO-NHPA and lease notice NM-11-LN, which require State Historic Preservation Office (SHPO) and tribal consultation and compliance with Section 106 of the NHPA prior to approval of lease development.

The New Mexico BLM has a two-party agreement with the New Mexico SHPO that implements an authorized alternative to 36 CFR 800 for most undertakings (herein referred to as the State Protocol; see also Section 4.3 of the EA). The State Protocol outlines when case-by-case SHPO consultation is or is not required for specific undertakings, the procedures for evaluating the effects of common types of

undertakings, and details regarding how to resolve adverse effects on cultural and historic properties. Because the actions evaluated for future potential development of the nominated lease parcels are considered common undertakings (by the State Protocol), the Proposed Action does not require additional consultation with the New Mexico SHPO in accordance with Appendix C.I.a of the State Protocol. The BLM New Mexico State Office, SHPO, and the Advisory Council on Historic Preservation also entered into the Permian Basin Programmatic Agreement (PBPA) as an option for compliance with Section 106 of the NHPA for energy-related projects in the PBPA project area. The nominated lease parcels are not within the PBPA area; therefore, development on these parcels would not be eligible for enrollment to the PBPA. The Proposed Action is not anticipated to create a high degree of impacts on sites/objects listed in the NRHP or to cause significant adverse loss or destruction of significant scientific, cultural, or historical resources because any adverse effects identified at the proposed lease development stage would be mitigated, minimized, or avoided.

Impacts on Native American traditional cultural and religious concerns have been addressed in the EA (see Section 3.5, AIB-20) and through tribal consultation (see EA Section 4.2).

Endangered Species Act

The proposed action would be in compliance with the Endangered Species Act (ESA) (see EA Section 3.5 AIB-7 and EA Section 4.1). The analysis in the EA indicates that potential habitat is present within the nominated lease parcels for three federally listed endangered species. Future potential development of the nominated lease parcels is not anticipated to create adverse impacts for the following reasons: 1) stipulations and lease notices facilitate the reduction or avoidance of effects (see Table 2.1 and Appendix B of the EA), 2) site-specific analysis at the lease development stage provides an additional opportunity to evaluate effects and develop measures to reduce or avoid effects, and 3) the standard lease terms and conditions that apply to all nominated lease parcels provide the BLM with the authority to require reasonable measures that reduce or avoid effects.

BLM PDO biologists determined the Proposed Action would comply with threatened and endangered species management guidelines outlined in the 1988 CFO RMP, as amended in 1997 (Consultation #2-22-96-F-128), as amended in 1997 (Consultation #2-22-96-F-128), and in the Roswell RMP (BLM 1997b), as well as the September 2006 (Consultation #22420-2007-TA-0033) Biological Assessments (BAs) and in accordance with the requirements of the FLPMA and NEPA. The BLM would initiate ESA Section 7 consultation with the U.S. Fish and Wildlife Service for species not previously analyzed in the 1997 and 2006 BAs if during site selection federally listed species are found to have a potential to be present or impacted during lease development.

CONCLUSION

Therefore, on the basis of the information contained in the EA (DOI-BLM-NM-P000-2021-0001-EA) and all other information available to me at this time, it is my determination that:

- The degree of the effects of the Proposed Action do not rise to the level of significance requiring preparation of an EIS (see criteria 1–4 explained in detail).

- The Proposed Action is in conformance with the Carlsbad RMP (BLM 1988), as amended (BLM 1997a, 2008a) and the Roswell Approved RMP and Record of Decision (BLM 1997b), as amended (BLM 2008a).

Sheila Mallory
Deputy State Director-Minerals

Date