

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT New Mexico State Office

October 28–29, 2020 Competitive Oil and Gas Lease Sale Environmental Assessment, DOI-BLM-NM-P000-2020-0004-EA

FINDING OF NO SIGNIFICANT IMPACT

BACKGROUND

The Bureau of Land Management (BLM) prepared an Environmental Assessment (EA) (DOI-BLM-NM-P000-2020-0004-EA) analyzing the effects of leasing 11 nominated oil and gas lease parcels (7,730.86 acres) in Eddy, Lea, and Chaves Counties, New Mexico, for sale in the October 28–29, 2020 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 11 nominated parcels, with stipulations and lease notices derived from the Carlsbad Resource Management Plan (RMP) (BLM 1988),¹ and Roswell RMP (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-five issues identified during the scoping process (see EA Section 1.5) are analyzed in a succinct fashion and are presented as “Issues Analyzed in Brief” (AIB) in EA Section 3.4. Five issues concerning air quality pollutants and emissions, greenhouse gas emissions, surface and groundwater quantity, dunes sagebrush lizard and lesser prairie-chicken, and air quality related values at Carlsbad Caverns National Park (CCNP), are carried forward as “Issues Analyzed in Detail” in EA Section 3.5.

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-P000-2020-0004-EA), which analyzes potential impacts from the Lease Sale, and considering the criteria for significance provided by the Council on Environmental Quality (CEQ) regulations at 40 Code of Federal Regulations (CFR) 1508.27, I have determined that leasing the 7,730.86 acres of nominated 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.

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

¹ Full citations for the literature cited in this Finding of No Significant Impact (FONSI) are in EA Chapter 6.

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.

CONTEXT

Under the Proposed Action, the BLM would lease 11 nominated parcels involving 7,730.86 acres of BLM-administered federal minerals. The nominated parcels consist of private, state, and BLM-administered surface lands (see EA Table 2.1).

The nominated parcels are within an area designated as open to oil and gas leasing under standard terms and conditions and special stipulations in the Carlsbad and Roswell RMPs (BLM 1988, 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. EA Appendix A provides a list of the nominated lease parcels and the applicable stipulations and notices.

Although the act of leasing the nominated parcels does not authorize development of the parcels, by leasing the parcels, the BLM commits to honoring the rights of the lessee to explore and potentially develop the parcels for oil and gas production. Therefore, under the Proposed Action, the potential impacts associated with the reasonably foreseeable 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 16 horizontal wells, approximately 72 acres of surface disturbance, and total production of an estimated 2,688,000 barrels of oil and 15,673,600 thousand cubic feet of gas (refer to EA Section 2.1 for methodology for estimating well numbers, potential production volumes, and surface disturbance associated with the future potential development of the nominated lease parcels).

The nominated lease parcels are located in Eddy, Lea, and Chaves Counties, New Mexico. Within these counties, as well as the area immediately surrounding the nominated 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.

INTENSITY

The following discussion is organized around the 10 criteria described at 40 CFR 1508.27.

1. *Impacts that may be both beneficial and adverse.*

Lease stipulations and lease notices to reduce impacts across resources are added to the Proposed Action (see EA Appendix A). In addition, existing laws, regulations, and policies pertaining to oil and gas development further reduce or avoid impacts on resources. Potentially beneficial and adverse impacts related to the Proposed Action are disclosed and analyzed in EA Section 3.4 (for the issues

analyzed in brief) and Section 3.5 (for issues analyzed in detail). The potential for adverse impacts to the resources examined in AIB-1 through AIB-24 would not be significant with application of lease notices and stipulations, consideration of parcel proximity to sensitive resources, and the likelihood for sensitive resources to occur.

Table 1 summarizes the issues analyzed in detail (see EA Section 3.5). The potential for cumulatively significant impacts from these issues analyzed in detail is summarized in Criterion 7.

Table 1. Summary of Issues Analyzed in Detail

Issue (EA Section)	Summary of Issues Analyzed in Detail (further discussed in EA Chapter 3)
<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 3.5.1)</p>	<p>Impacts on air quality on a broad scale in the analysis area would be less than or equal to a 0.25% increase (assuming concurrent development) in criteria pollutants. Additional nitrogen oxide(s) (NO_x) and VOCs from each of the 16 wells would incrementally add to ozone (O₃) levels within the analysis area, which recently exceeded NAAQS in Eddy County. However, it is highly unlikely that all 16 wells would be developed concurrently or even in a single year. Additionally, emissions would be spread out spatially because the nominated lease parcels are located in Eddy, Lea, and Chaves Counties. Thus, it is not expected that the Proposed Action would lead directly to additional NAAQS exceedances of O₃ in Eddy County.</p> <p>The Proposed Action would also result in localized impacts to air quality at nearby residences due to ozone precursor and hazardous air pollutant (HAP) emissions. None of the nominated lease parcels contain residences. The nearest residences are approximately 0.73 mile from parcel 359, and 0.82 mile from parcel 349. Future potential development of the lease parcels would result in short-term local area increases of pollutant emissions, including particulate matter [PM_{2.5} and PM₁₀], NO_x, VOCs, and O₃ (as a secondary pollutant), lasting an average of 30 days. The levels of HAP emissions would also temporarily increase during well construction and completion activities. 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>The Proposed Action is estimated to result in approximately 0.31 ton per year of HAP emissions from combined construction and operation of each well 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 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>Issue 2: How would future potential development of the nominated lease parcels contribute to greenhouse gas (GHG) emissions? (EA Section 3.5.2)</p>	<p>Future potential development of the lease parcels would result in 17,844 metric tons of carbon dioxide equivalent (CO₂e) of annual GHG emissions during well construction and operation. This is an annual increase of 0.00028% to the total U.S. GHG emissions, an annual increase of 0.018% to New Mexico oil and gas emissions, and an annual increase of 0.212% in Permian Basin emissions (EA Table 3.21). Potential downstream/end-use GHG emissions are estimated at 2.02 million metric tons (MMT) of CO₂e. The BLM does not direct or regulate the end use of produced oil or gas. Downstream/end-use GHG emissions cannot be reasonably compared with an annual metric or value because the amount of production expected from each well on an annual basis is not known; however, EA Table 3.23 provides historical production, and associated GHG emission, values at different scales of end use.</p>
<p>Issue 3: How would future potential development of the nominated lease parcels impact surface and groundwater quantity? (EA Section 3.5.3)</p>	<p>Future potential drilling and completion of 16 horizontal wells in the nominated lease parcels is estimated to use approximately 499 acre-feet (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 25 AF for any given year, which represents a 0.0042% increase of the Pecos District analysis area total water use (620,416 AF), 0.005% of the Pecos District analysis area total groundwater use (546,195 AF), and a 0.03% increase over 2015 water use in the mining category for the Pecos District analysis area (95,800 AF).</p>

Issue (EA Section)	Summary of Issues Analyzed in Detail (further discussed in EA Chapter 3)
<p>Issue 4: How would future potential development of the nominated lease parcels impact dunes sagebrush lizard (DSL) and lesser prairie-chicken (LPC)? (EA Section 3.5.4)</p>	<p>DSL known occupied habitat occurs within approximately 45.69 acres of parcels 343 and 347. Parcels 345 and 348 occur within suitable DSL dunal habitat, but are not within DSL known occupied habitat. Future potential development of these parcels could be reasonably expected to directly impact approximately 9 acres of DSL suitable habitat, as well as 9 acres of DSL occupied habitat, which is about 0.0017% of total known occupied habitat within the Pecos District Office (522,044 acres).</p> <p>One nominated parcel (357, 160 acres) is located fully within a designated LPC Isolated Population Area (IPA). Five nominated lease parcels are located within designated LPC Sparse and Scattered Population Area (SSPA) (parcels 343, 345, 346, 347, and 348; 2,550.33 acres in SSPA total). Future potential development of the nominated parcels is expected to result in 4.50 acres of surface disturbance in designated LPC IPA (approximately 0.0006% of the total IPA, which totals 794,487 acres) and 22.50 acres in designated LPC SSPA (approximately 0.01% of the total SSPA, which totals 218,126 acres). The Core Management Area and Primary Population Areas would not be affected. There are no leks located within any of the nominated lease parcels.</p> <p>Controlled surface use (CSU) stipulations and lease notices applied to the parcels in DSL and LPC habitat areas would assist in restricting and minimizing surface disturbance and minimizing impacts to both DSL and LPC. In conjunction with CSU stipulations and lease notices applied to the nominated parcels, site-specific analysis and pre-disturbance biological surveys at the lease development stage would contribute to avoidance, minimization, and reduction of impacts to suitable habitat. Surface disturbance from future potential development of the nominated lease parcels would likely result in a decrease of habitat quality from human presence and loss of suitable habitat for DSL and LPC. Oil and gas-related traffic may result in direct mortalities. 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.</p>
<p>Issue 5: How would future potential development of the nominated lease parcels impact air quality related values (visibility and deposition) at CCNP (EA Section 3.5.5)?</p>	<p>The Proposed Action is part of the CFO RFD. Modeling for the CFO RFD indicated there are no days in which the visibility threshold would be exceeded for the CCNP. Maximum modelled nitrogen deposition at CCNP exceeded the National Park Service screening deposition analysis threshold (DAT) but was below the level of concern (LOC), which indicates levels from the Proposed Action are not likely to cause adverse impacts. Maximum modelled sulfur deposition at CCNP was below the DAT and LOC.</p>

EA Section 3.4 also discloses the potential for beneficial impacts, including employment opportunities and revenue streams for federal, state, and local governments (see AIB-23, socioeconomics) and fluid mineral availability (see AIB-11).

2. *The degree to which the proposed action affects public health or 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-22 (human health and safety), AIB-23 (socioeconomics), AIB-24 (quality of life), Issue 1 (air quality), and Issue 2 (greenhouse gas emissions). 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 (particulate matter equal to or less than 10 microns in diameter [PM₁₀]). EA Section 3.5.1 (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 3.4 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-a-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 parcels (16 wells) is 0.03% 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. Finally, the analysis of impacts in the EA assumes that all lease parcels would be developed concurrently. However, concurrent development of nominated parcels is a highly unlikely scenario and, at this decision point (the leasing stage), detailed information regarding development plans and timing is unknown because no development plans are yet proposed. While this assumption facilitates quantification in the analysis and provides a conservative estimate of effects, it also overestimates effects because development is more likely to be spread out over time (10–20 or even more years) as a result of the varying development plans and approaches of lessees in the context of overall oil and gas development throughout the Permian Basin.

3. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

Regarding the proximity of the lease parcels to:

- historic or cultural resources, see Criterion 8; and
- endangered, threatened, or sensitive species and their habitats, see Criterion 9.

The potential for impacts to these unique areas was analyzed in the EA Section 3.4: gypsum soils and active dune lands (see AIB-4), paleontological resources (see AIB-10), recreation sites (see AIB-14), Carlsbad Caverns National Park (see AIB-17 and Issue 5), cultural resources (see AIB-18), Native American traditional cultural and religious concerns (see AIB-19), cave and karst resources (see AIB-20), and playa wetlands (see AIB-21). There are no special designations (areas of critical environmental concern [ACECs] or lands with wilderness characteristics [LWCs]) or wild and scenic rivers within or adjacent to the nominated lease parcels. Based on lease stipulations and lease notices attached to the nominated lease parcels, current land uses in the area, and the requirement for a site-specific analysis at the time of proposed lease development, the Proposed Action would not cause significant impacts on the unique characteristics of the geographic area. Well developments that could potentially impact nitrogen deposition at Carlsbad Caverns National Park will be subject to a refined analysis at the proposed lease development stage to ensure cumulative deposition remains below the level of concern (see EA Section 3.5.5).

4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

Controversy in this context refers to disagreement about the nature of the impacts, not expressions of opposition to the Proposed Action or preference among the alternatives (BLM 2008b).

The degree to which the Proposed Action is likely to be highly controversial is low. Oil and gas exploration and development is a common practice in Eddy, Lea, and Chaves Counties, New Mexico. The nature of these activities and the resulting potential impacts have been analyzed, making use of the best-available scientific data, and disclosed to the public through existing BLM NEPA documents, including the ongoing Carlsbad RMP/Draft EIS (BLM 2018b) and the Pecos District Office (PDO) Special Status Species Proposed RMP Amendment/Final EIS (BLM 2007), as well as in this Lease Sale EA.

5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

The degree to which the possible effects on the quality of the human environment are thought to be highly uncertain or to involve unique or unknown risks owing to the Proposed Action is low. The BLM has been permitting and managing oil and gas development in the CFO and RFO planning areas since their inception and, accordingly, has extensive experience implementing oil and gas development and assessing and disclosing correlated environmental effects on the human environment. Moreover, oil and gas exploration and development have been, and continue to be, studied and are regulated for health and safety through multiple agencies, including federal, state, and local governments. Therefore, there are no predicted effects on the human environment owing to the Proposed Action that are considered to be highly uncertain or that involve unique or unknown risks. In addition, the projected potential effects on the quality of the human environment owing to oil and gas leasing and development have been analyzed and disclosed in the ongoing Carlsbad RMP/Draft EIS (BLM 2018b) and the PDO Special Status Species RMP Amendment/Final EIS (BLM 2007), as well as in this Lease Sale EA.

6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

The action is not precedent setting. The Proposed Action, to lease the nominated parcels, follows the same process and procedures used for previous oil and gas lease sales in the BLM PDO, and elsewhere across the BLM. It is compliant with applicable law and policy, including the Mineral Leasing Act (MLA), the Federal Land Policy and Management Act (FLPMA), and NEPA, as well as BLM policies and procedures. In principle, this action represents a decision about a future consideration because, although the act of leasing the nominated lease parcels does not authorize development of the parcels, by leasing the parcels the BLM commits to honoring the rights of lessees to explore and potentially develop the parcels for oil and gas production. The EA analyzes the effects of future potential oil and gas development (to which leasing is a precursor step) and the evidence provided in the EA and referenced in this FONSI indicates that the future potential development would not have significant effects.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

EA Section 3.3 establishes the cumulative impacts scenario that applies to all issues. Estimated future potential development of the nominated lease parcels (16 wells) is 0.03% 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). Leasing of the nominated parcels under the Proposed Action contributes to cumulative impacts across a number of resources, as disclosed in the Carlsbad RMP/Draft EIS (BLM 2018b) and the PDO Special Status Species RMP Amendment/Final EIS (BLM 2007), which considered the cumulative impacts of oil and gas development on resources in areas open to leasing, as well as other actions anticipated to have similar impacts on these resources. Table 2 provides a summary of the main cumulative impact conclusions for each of the issues analyzed in detail in EA Section 3.5.

Table 2. Summary of Cumulative Impact Conclusions

Issue (EA Section)	Summary of Cumulative Impact Conclusions (further discussed in EA Chapter 3)
Issue 1: How would future potential development of nominated lease parcels impact air quality (particularly National Ambient Air Quality Standards [NAAQS] and volatile organic compounds [VOCs]) in the analysis area? (EA Section 3.5.1.3)	The future potential development of the nominated lease parcels associated with the Proposed Action comprises 0.10% of the RFD scenario (16,000 wells) and assuming concurrent development, would be 2% of annual reasonably foreseeable development (800 wells). Past, present, and reasonably foreseeable future actions (RFFAs), including the Proposed Action, would incrementally contribute to cumulative increases in criteria pollutants between 1% to 12.29% of existing annual emissions of all well development, federal and non-federal. Localized and short-term impacts on air quality for nearby residences from emissions of particulate matter, NOx, VOCs, and HAP emissions 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. As such, the incremental addition of criteria pollutants and VOCs would not be expected to result in any exceedances of the NAAQS or New Mexico Ambient Air Quality Standards (NMAAQs) for any criteria pollutants in the analysis area.
Issue 2: How would future potential development of the nominated lease parcels contribute to greenhouse gas (GHG) emissions? (EA Section 3.5.2.3)	The GHG emissions from the Proposed Action are part of BLM's New Mexico reasonably foreseeable coal, oil, and gas production and consumption. GHG emissions from federal activities in New Mexico are estimated at 95.09 MMT of CO ₂ e per year for the 2020 high scenario and 99.35 MMT of CO ₂ e per year for the 2030 high scenario (EA Table 3.24). These represent increases of 2.5% and 7.2%, respectively, from the 2014 baseline coal, oil, and gas GHG emissions (92.75 MMT of CO ₂ e per year). These GHG emissions would represent 49% and 52% of state 2020 and 2030 high reasonably foreseeable coal, oil, and gas GHG emissions (see EA Table 3.24). Although a NEPA document may present quantified estimates of potential GHG emissions associated with reasonably foreseeable energy development, there is uncertainty with regard to eventual production volumes and variability, flaring, construction, transportation, etc. A rough estimate was possible using publicly available information and estimates from future production for the RFD scenario. Also, there is uncertainty with regard to the net effects of reasonably foreseeable energy development on climate; that is, while BLM actions may contribute to the climate change phenomenon, the specific effects of those actions on global climate are speculative given the current state of the science. Inconsistencies in the results of scientific models designed to predict climate change on regional or local scales limit the ability to quantify potential future impacts of decisions made at this level and to determine the significance of any discrete amount of GHG emissions beyond the limits of existing science.
Issue 3: How would future potential development of the nominated lease parcels impact surface and groundwater quantity? (EA Section 3.5.3.3)	The largest water use category within the analysis area is irrigation, comprising 75% of all water use within the Pecos District tri-county area. Development of the RFD, which comprises all RFFAs, would require 499,200 acre-feet (AF) water, or 24,960 AF of water in any given year if all wells were drilled horizontally. This is about 4% of Pecos District tri-county 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 0.1% of the RFD. If more water intensive stimulation methods (e.g., slickwater fracturing) are

Issue (EA Section)	Summary of Cumulative Impact Conclusions (further discussed in EA Chapter 3)
	implemented or if laterals become longer, cumulative water use could increase from estimates provided in the <i>BLM New Mexico Water Support Document</i> (BLM 2019b). 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; however, in the PDO, most wells use water for completion, rather than nitrogen gel or slickwater completion technologies (BLM 2020b).
Issue 4: How would future potential development of the nominated lease parcels impact dunes sagebrush lizard (DSL) and lesser prairie-chicken (LPC)? (EA Section 3.5.4.3)	<p>For the DSL, the 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 (16 wells) would represent about 0.10% of the RFD (16,000 wells).</p> <p>For the LPC, habitat fragmentation and increased density of development from the RFD risk reducing habitat viability further past species-specific thresholds. Increased fragmentation from development of the RFD is expected within the LPC Isolated Population Area (IPA) and Sparse and Scattered Population Area (SSPA). Modeling conducted in support of the ongoing CFO RMP effort has determined that the IPA is already 99% unsuitable for reproductive efforts for this species according to these species-specific thresholds (BLM 2008a, n.d.-b); any further fragmentation would decrease the effectiveness of reclamation activities in this area. Anticipated surface disturbance from future potential development associated with the Proposed Action would impact approximately 0.01% of the SSPA, and would not result in any potential future potential development within the Core Management Area, IPA-Habitat Areas, or Primary Population Areas.</p>
Issue 5: How would future potential development of the nominated lease parcels impact air quality-related values (visibility and deposition) at CCNP? (EA Section 3.5.5.2)	<p>See also EA Section 3.5.5.2. Modeling for the CFO RFD indicated there are no days in which the visibility threshold would be exceeded for the CCNP. Deposition modeling showed that the maximum annual nitrogen DAT at the project level was exceeded for CCNP but may be below the LOC at specific receptors. Although DAT exceedances do not strictly indicate the need for mitigation, future cumulative modeling may be required to demonstrate that cumulative nitrogen deposition is below the level of concern.</p> <p>As part of a master development plan for 436 oil and gas wells to be developed on over 106 well pads, Chevron conducted additional analysis extending the URS (2013) modeling that was performed in support of the CFO RMP effort and updated NOx emissions in the project area. The results of acid deposition monitoring showed incremental exceedances of the nitrogen DAT of 0.005 kg/ha/year in the CCNP during drilling operations but would be well below the DAT once drilling is completed (BLM 2016). Similar results to Air Quality Related Values can be expected for other large well development projects in the PDO. With consideration of these results, future potential development of the nominated lease parcels (16 wells in various locations across the PDO, which are not expected to be developed concurrently) is not expected to result in exceedances of the nitrogen DAT.</p>

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP) or may cause loss or destruction of significant scientific, cultural, or historic resources.*

For details, see EA Section 3.4, AIB-18. The BLM CFO and RFO conducted a records review and analysis of the area of potential effects for the 11 nominated lease parcels. The review found that approximately 2.35% of the 5,170.86 acres of the nominated lease parcels in the CFO and 23.89% of the 2,560 acres of the nominated lease parcels in the RFO have been inventoried for cultural resources, and a total of 16 archaeological sites are documented within the 11 nominated parcels. Of these sites, eight sites are determined eligible for listing in the National Register of Historic Places (NRHP). There are no known traditional cultural properties (TCPs) within the nominated parcels. Due to low archaeological survey coverage and minimal overall ground disturbance from development within the nominated CFO parcels, there is potential for identifying new sites. At this time, the BLM CFO and RFO determined that there would be No Historic Properties Affected as a result of the undertaking (see EA Section 4.3). All 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 National Historic Preservation Act (NHPA) prior to approval of lease development. 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.

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 and the procedures for evaluating the effects of common types of undertakings, and details 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 CFO and RFO 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. Of the 11 parcels available for lease, three parcels (341, 344, and 357) are within the PBPA area, and development on these parcels could comply with the PBPA provisions. Additionally, should any of the remaining nominated parcels be developed, future potential development would undergo a separate NEPA and NHPA process, in compliance with regulation and policy.

Impacts on Native American traditional cultural and religious concerns have been addressed in the EA (see Section 3.4, AIB-19) and through tribal consultation (see EA Section 4.2).

9. *Degree to which the action may adversely affect an endangered or threatened species or its critical habitat.*

See EA Section 3.4 AIB-7, and EA Section 4.1. The analysis in the EA indicates that potential habitat for five federally listed endangered species (least tern, southwestern willow flycatcher, Sacramento prickly poppy, Todsens's pennyroyal, and Sneed's pincushion cactus), four federally listed threatened species (piping plover, Sacramento Mountains thistle, Lee pincushion cactus, and Pecos sunflower), and one federal candidate species (Wright's marsh thistle) occurs within or adjacent to the nominated lease parcels. Future potential development is not anticipated to create adverse impacts for the following reasons: 1) stipulations and lease notices facilitate the reduction or avoidance of effects (see Appendices A and C 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), and in the 1997 RFO RMP; as well as the September 2006 (Cons. #22420-2007-TA-0033) Biological Assessments and in accordance with the requirements of the FLPMA and NEPA. The BLM would initiate Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service for species not previously analyzed in the 1997 and 2006 biological assessments, if during site

selection federally listed species are found to have a potential to be present or impacted during lease development.

10. *Whether the action threatens a violation of federal, state, or local law, or requirements imposed for the protection of the environment.*

Leasing of the nominated parcels would not violate any federal, state, local, or tribal law, regulation, or policy imposed for the protection of 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 May 18 to June 1, 2020;
- a Draft EA public review and comment period from July 6 to July 17, 2020; and
- a Lease Sale Notice protest period from August 24 to September 2, 2020.

In compliance with NEPA and the NHPA, the BLM CFO and RFO are consulting with and conducting ongoing Government-to-Government consultation with Tribes (see also EA Section 3.4, AIB-19, and Section 4.2).

CONCLUSION

Therefore, on the basis of the information contained in the EA (DOI-BLM-NM-P000-2020-0004-EA), and all other information available to me at this time, it is my determination that:

- None of the environmental impacts identified meet the definition of significance as defined by context and intensity considerations at 40 CFR 1508.27. (See intensity criteria 1-10 explained in detail.)
- The Proposed Action is in conformance with the Carlsbad RMP (BLM 1988) and Roswell RMP (BLM 1997b), as amended (BLM 1997a, 2008a).
- The Proposed Action does not constitute a major federal action having a significant effect on the human environment.

Therefore, preparation of an EIS is not necessary.

Sheila Mallory
Deputy State Director-Minerals

Date