



Crestone Peak Resources, LLC

WILDLIFE MITIGATION PLAN

FOR

Chico 4-65 26-25 North Pad

City of Aurora

Case Number: 2024-6041-00

Development Application:

DA-2395-00

Prepared For:



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Date Prepared: April 2024

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1. INTRODUCTION

This Wildlife Mitigation Plan (WMP) was prepared by RPG Resources (RPG), on behalf of Crestone Peak Resources Operating, LLC (Civitas Resources, Inc.; hereafter Crestone) for the proposed Chico 4-65 26-25 North Pad. This WMP was prepared to adhere to the Colorado Energy and Carbon Management System (ECMC) Rules 304.c.(17) and 1201.b, for an Oil and Gas Location within High Priority Habitat and describes the implementation of operating requirements pursuant to Rules 1202.a, 1202.b, & 1202.c, as well as any mitigation requirements pursuant to Rules 1202.d & 1203. Compensatory mitigation costs to offset the direct and unavoidable adverse indirect impacts to wildlife resources pursuant to Rule 1203.b is included in this WMP.

The WMP goal is to avoid or minimize impacts to wildlife and serve as a communication tool to foster cooperative relationships between Crestone, Crestone’s contractors, and local agencies and stakeholders. Implementation of this plan will ensure that Crestone will avoid or minimize effects to wildlife populations, productivity levels, and habitats concurrently with the development of its oil and gas resources.

2. SITE DESCRIPTION

The proposed site (or “Oil and Gas Location”) is in Section 26 of Township 4 South, Range 65 West in Arapahoe County, Colorado at approximately 5,804 feet elevation.

The Site is in the Western Great Plains Range and Irrigated Region Land Resource Region (LRR) of the Central High Plains, Southern Part Major Land Resource Region (MLRA; NRCS 2006). The field-verified land type is rangeland. The current dominant vegetative species include; blue gramma (*Bouteloua gracilis*), buffalograss (*Bouteloua dactyloides*), common mullein (*Verbascum thapsus*), scotch thistle (*Onopordum acanthium*), and puncturevine (*Tribulus terrestris*).

The Site is in Colorado Parks and Wildlife (CPW)-mapped Pronghorn Winter Concentration Area High Priority Habitat (HPH). The proposed development will cause the density of active Oil and Gas Locations to exceed one within one square mile. The density of active Oil and Gas Locations within one square mile is less than five (5).

3. DEVELOPMENT ACTIVITY

The estimated timelines and duration of operations are as follows:

- Pad construction is anticipated to begin November 2024 and last for approximately 6 weeks (outside big game winter season).
- Drilling is anticipated to begin December 2024 and last for approximately 1 month (within big game winter season). Due to anticipated permit cycle times and operational constraints, Crestone cannot commit to entirely avoiding HPH season.
- Completions is anticipated to begin June 2025 and last for approximately 2 months (outside big game winter season).
- The production lifetime is estimated to be approximately 30 years.

The dates and durations listed above are subject to change based on permit approval timing, project adjustments or operational delays, weather conditions, and/or other unforeseen factors.

4. PRE-APPLICATION CONSULTATION

RPG, Civitas, and CPW conducted an on-site consultation on March 12, 2024 to discuss the proposed location, alternative locations, and site-specific mitigation measures to protect wintering big game.

The agreed-upon mitigation measures are discussed below in Section 6. A description of the Best Management Practices that will be implemented to minimize impacts, as discussed with CPW, are described in Section 6.1. The mitigation measures including direct and indirect impacts and the associated fees are described in Section 6.2 below.

5. OPERATING REQUIREMENTS

Below is a review of the operating requirements identified in Rule 1202 and Crestone's plans to adhere to those which are applicable to the Site. Crestone's contractors will also comply with all applicable operating requirements.

a. The operating requirements identified in Rule 1202.a apply to Oil and Gas Operations statewide unless the Operator obtains a signed waiver from Colorado Parks and Wildlife (CPW) and the Director or Commission approves a Form 4, Sundry Notice or Form 2A documenting the relief.

(1) In black bear habitat, Operators will install and utilize bear-proof dumpsters and trash receptacles for food-related trash at all facilities that generate trash.

The Site is not located within black bear habitat.

(2) Operators will disinfect water suction hoses and water transportation Tanks withdrawing from or discharging into surface waters (other than contained Pits) used previously in another river, intermittent or perennial stream, lake, pond, or wetland and discard rinse water in an approved disposal facility. Disinfection practices will be repeated prior to completing work and before moving to the next waterbody. Disinfection will be performed by scrubbing and pre-rinsing equipment away from water bodies to remove all mud, plants, and organic materials and then by implementing one of the following practices:

- A. Spray/soak equipment with a CPW-approved disinfectant solution capable of killing whirling disease spores and other aquatic nuisance species defined by CPW; or*
- B. Spray/soak equipment with water greater than 140° Fahrenheit for at least 10 minutes. All equipment and any compartments they contain will be completely drained and dried between each use.*

Crestone will follow these disinfection requirements when applicable.

(3) At new and existing Oil and Gas Locations, Operators will not situate new staging, refueling, or Chemical storage areas within 500 feet of the Ordinary High Water Mark ("OHWM") of any river, perennial or intermittent stream, lake, pond, or wetland.

The Site is not within 500 feet of the OHWM of any river, perennial or intermittent stream, lake, pond, or wetland.

- (4) *To prevent access by wildlife, including birds and bats, Operators will fence and net or install other CPW-approved exclusion devices on new Drilling Pits, Production Pits, and other Pits associated with Oil and Gas Operations that are intended to contain Fluids.*
- A. *Such fencing and netting or other CPW-approved exclusion device will be installed within 5 days after the cessation of active drilling and completion activities and maintained until the Pit is removed from service and dried or closed pursuant to the Commission's 900 Series Rules.*
 - B. *The Director may require an operator to fence and net or install other CPW-approved exclusion devices on an existing Pit if the Director determines that the installation is necessary and reasonable to protect Wildlife Resources based on the analysis required by Rule 909.j, or other information that demonstrates additional protections for Wildlife Resources are appropriate.*
 - C. *Operators will properly maintain and repair all fences, nets, and CPW-approved exclusion devices required by this Rule 1202.a.(4).*

The Site will not include Drilling Pits, Production Pits, or other Pits associated with Oil and Gas Operations.

- (5) *For trenches that are left open for more than 5 consecutive days during construction of Pipelines regulated pursuant to the Commission's 1100 Series Rules, Operators will install wildlife escape ramps at a minimum of one ramp per 1/4 mile of trench.*

If a trench is left open for more than 5 consecutive days during pipeline construction, Crestone will install wildlife escape ramps at a minimum of one ramp per ¼ mile of trench.

- (6) *When conducting interim and final Reclamation pursuant to Rules 1003 and 1004, Operators will use CPW-recommended seed mixes for Reclamation when consistent with the Surface Owner's approval and any local soil conservation district requirements.*

Crestone will use CPW-recommended mitigation seed mix for pronghorn for interim and final reclamation (see Interim Reclamation Plan).

- (7) *Operators will use CPW-recommended fence designs when consistent with the Surface Owner's approval and any Relevant Local Government requirements.*

Crestone will use CPW-recommended fence designs with consistent with the Surface Owner's approval and any Relevant Local Government requirements.

- (8) *Operators will conduct all vegetation removal necessary for Oil and Gas Operations outside of the nesting season for migratory birds (April 1 to August 31). For any vegetation removal that must be scheduled between April 1 to August 31, Operators may implement appropriate hazing or other exclusion measures prior to April 1 to avoid take of migratory birds. If hazing or other exclusion measures are not implemented, Operators will conduct pre-construction nesting migratory bird*

surveys within the approved disturbance area prior to any vegetation removal during the nesting season. If active nests are located, Operators will provide work zone buffers around active nests.

If construction or other earth-moving activities will begin within the recognized migratory bird breeding season between April 1 and August 31, Crestone will conduct migratory bird surveys no later than one week before construction is scheduled to start to identify potential presence of nesting MBTA-protected species within the Site. Should any nests be identified at that time, Crestone will pursue additional surveys, nest monitoring and/or other species-specific best management practices as recommended by and in coordination with CPW.

- (9) *Operators will treat Drilling Pits, Production Pits, and any other Pit associated with Oil and Gas Operations containing water that provides a medium for breeding mosquitoes with Bti (*Bacillus thuringiensis v. israelensis*) or take other effective action to control mosquito larvae that may spread West Nile virus to Wildlife Resources. Such treatment will be conducted in a manner which will not adversely affect aquatic Wildlife Resources.*

The Site will not include Drilling Pits, Production Pits, or other Pits associated with Oil and Gas Operations.

- (10) *Operators will employ the following minimum Best Management Practices on new Oil and Gas Locations with a Working Pad Surface located between 500 feet and ¹1000 feet hydraulically upgradient from a High Priority Habitat identified in Rule 1202.c.(1). Q–S:*

- A. *Contain Flowback and Stimulation Fluids in Tanks that are placed on a Working Pad Surface in an area with downgradient perimeter berming;*
- B. *Construct lined berms or other lined containment devices pursuant to Rule 603.o around any new crude oil, condensate, and produced water storage Tanks that are installed after January 15, 2021;*
- C. *Inspect the Oil and Location on a daily basis, unless the approved Form 2A provides for different inspection frequency or alternative method of compliance;*
- D. *Maintain adequate Spill response equipment at the Oil and Gas Location during drilling and completion operations; and*
- E. *Not construct or utilize any Pits, except that Operators may continue to utilize existing Pits that were properly permitted, constructed, operated, and maintained in compliance prior to January 15, 2021.*

The Site is not located between 500 feet and 1000 feet hydraulically upgradient from a High Priority Habitat identified in Rule 1202.c.(1). Q-S.

- b. *Operators will bore, rather than trench, Flowline and utility crossings of perennial streams identified as aquatic High Priority Habitat unless the Operator obtains a signed waiver from CPW and the Director or Commission approves a Form 4 or Form 2A documenting the relief. When installing culverts*

¹ Although this language regarding hazing measures is included within ECMC's 1200 Series Rules, more recent guidance provided directly by ECMC commissioners included a request to avoid any hazing measures.

or bridges, such structures will not impact or prevent the passage of fish unless otherwise directed by CPW.

Flowlines and utilities associated with the Site will not cross any perennial streams identified as aquatic High Priority Habitat.

- c. *Except as specified pursuant to Rule 1202.c.(2), Operators will not conduct any new ground disturbance and Well work, including access road and pad construction, drilling and completion activities, and Flowline/utility corridor clearing and installation activities in the High Priority Habitats listed in Rule 1202.c.(1). [. . .]*

The Site is not located within any HPHs listed in Rules 1202.c and, therefore, this rule does not apply to this Site.

- d. *All Oil and Gas Development Plans submitted after January 15, 2021, including amendments to previously-approved Form 2As, that cause the density of Oil and Gas Locations to exceed 1 per square mile in the High Priority Habitats listed in Rule 1202.d require a CPW-approved Wildlife Mitigation Plan pursuant to Rule 1201.b or other CPW-approved conservation plan and compensatory mitigation for Wildlife Resources pursuant to Rule 1203. This Rule 1202.d applies to the following High Priority Habitat types:*

[. . .]

- (4) *Pronghorn migration corridors and winter concentration areas;*

The Site is located within Pronghorn Winter Concentration Area HPH. The proposed development will cause the density of Oil and Gas Locations to exceed one within one square mile. Therefore, this WMP has been prepared to satisfy this requirement.

6. MITIGATION HIERARCHY

6.1. Avoidance and Minimization Measures – Best Management Practices (BMPs)

Indirect Impacts may be avoided or minimized through the application of alternative siting and Rule 1202 operating requirements. Below is a description of Best Management Practices (BMPs) incorporated into the proposed Oil and Gas Operations that Crestone will implement for the purposes of minimizing impacts to pronghorn.

- Crestone will avoid construction of a new location and access road within CPW-identified Pronghorn Winter Concentration Area by using an existing location and existing access road. The majority of the new disturbance area overlaps the previously disturbed from initial development of this location.
- Crestone will utilize an 8-foot opaque privacy fence installed around the production pad. This fence design does not contain open gaps between railings that could trap wildlife. The fence will be installed around the working pad surface following interim reclamation to allow big game to graze on the reclaimed lands.

- Crestone will avoid installation of new electrical infrastructure by using existing infrastructure.
- Crestone will utilize a full-wrap sound wall during the development of this location, significantly minimizing noise and light impacts.
- Crestone will not install any permanent lighting at this location, significantly minimizing light impacts.
- Crestone will utilize utility power as a power source for the permanent production facilities, significantly minimizing noise impacts.
- Crestone will reclaim/restore big game habitats with native shrubs, grasses and forbs identified by CPW that contribute to optimal big game habitat and other wildlife appropriate to the ecological site.
- Crestone will plan to perform interim reclamation as early as reasonably possible following their active operations. Currently, interim reclamation is planned prior to the start of the pronghorn winter season.
- Crestone will preclude the use of CPW-identified aggressive non-native grasses and shrubs in big game habitat reclamation.

In addition to conforming to requirements pursuant to the 1200 Series Rules described above, Crestone will exercise the following non-species-specific wildlife BMPs as applicable to the Site:

- Inform and educate employees and contractors on wildlife conservation practices, including no harassment or feeding of wildlife;
- Consolidate and centralize fluid collection and distribution facilities to minimize impact to wildlife;
- Adequately size infrastructure and facilities to accommodate both current and future gas production;
- Protect culvert inlets from erosion and sedimentation and install energy dissipation structures at outfalls;
- Implement fugitive dust control measures;
- Install screening or other devices on the stacks and on other openings of heater treaters or fired vessels to prevent entry by migratory birds;
- Minimize rig mobilization and demobilization by completing or re-completing all wells from a given well pad before moving rigs to a new location;
- To the extent practicable, share and consolidate new corridors for pipeline rights-of-way and roads to minimize surface disturbance;
- Engineer new pipelines to reduce field fitting and reduce excessive right-of-way widths and reclamation;

- Mow or brush hog vegetation where appropriate, leaving root structure intact, instead of scraping the surface, where allowed by the surface owner;
- Limit access to Oil and Gas access roads where approved by surface owners, surface managing agencies, or local government;
- Post speed limits and caution signs to the extent allowed by surface owners, Federal and state regulations, local government, and land use policies;
- Use wildlife-appropriate fencing where acceptable to the surface owner;
- Use topographic features and vegetative screening to create seclusion areas, where acceptable to the surface owner;
- Use remote monitoring of well production to the extent practicable;
- Reduce traffic associated with transporting drilling water and produced liquids through the use of pipelines, large tanks, or other measures. Crestone estimates approximately 20-23 passenger vehicle roundtrips per day and 11-14 multiple-unit truck roundtrips per day during the drilling phase and approximately 2 passenger vehicle roundtrips per day during the first pronghorn winter season following initial production. Initial flowback, during which the highest volume of trucked produced water will leave the site, is anticipated to occur outside the pronghorn winter season;
- Install automated emergency response systems (e.g., high tank alarms, emergency shutdown systems; and
- Avoid dust suppression activities within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.

6.2. Mitigation

The Site is located within Pronghorn Winter Concentration Area HPH. Below is the description of the Rule 1203 mitigation commitments to offset Unavoidable Adverse Impacts to Wildlife Resources set forth by CPW and agreed upon by Crestone.

6.2.1. Direct Impacts

Since the combined disturbance size of this well pad and road is > 10.99 acres (12.70 acres) Crestone has chosen to offset this direct impact to a Pronghorn Winter Concentration Area (per the 1200 series rules) by paying CPW the negotiated fee. Because both permanent and temporary disturbances are occurring next to an existing active location, CPW recommends the baseline direct mitigation flat fee of \$13,750.00 (see Appendix D).

6.2.2. Indirect Impacts

The location is within the Pronghorn Winter Concentration Area HPH with a density of Oil and Gas Locations less than 5 per square mile. Crestone has consulted with CPW to recommend to the Director whether compensatory mitigation is required to address the Unavoidable Adverse indirect Impacts of habitat fragmentation caused by the proposed Oil and Gas Development Plan.

Crestone has chosen to offset this indirect impact by the below CPW negotiated fees.

- Pay CPW \$54,514.89 at least 30 days prior to construction to offset Crestone’s indirect impacts to this HPH polygon which was calculated by CPW. This indirect fee is based on Crestone conducting work inside the Pronghorn winter season.

7. SITE-SPECIFIC ENVIRONMENTAL SITE ASSESSMENT

RPG conducted a comprehensive Environmental Site Assessment (ESA) of the proposed Site and provided recommendations based on site-specific observations. RPG’s considerations included, but were not limited to, resources protected under the Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act (MBTA), Endangered Species Act, Colorado Nongame, Endangered, or Threatened Species Conservation Act, and the Clean Water Act (CWA), as well as other agency wildlife recommendations. The ESA included a desktop review of aerial imagery, agency-mapped sensitive natural resources, and a site-specific U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) report. Following the desktop review, RPG conducted field surveys on February 19, 2024, February 22, 2024, and February 28, 2024, to assess the potential for other protected or sensitive natural resources to be impacted by operations. Detailed results of the ESA are provided in Appendix A and an Environmental Site Map is provided in Appendix B.

7.1. Eagles

No bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*) nests or nesting activity were observed within ½ mile of the Site during the field surveys. There is no suitable eagle nesting habitat (e.g., trees and cliffs) within ½ mile of the Site. There are no CPW-mapped bald eagle winter night roost areas within ½ mile of the Site.

No further action is recommended.

7.2. Burrowing Owls

Suitable burrowing owl (*Athene cunicularia*) habitat (i.e., black-tailed prairie dog colony) was identified approximately 0.22-miles north mile of the Site. This is within the CPW-recommended ¼ mile buffer for burrowing owls.

If construction begins between March 15 through October 31, burrowing owl surveys are recommended by qualified biologists prior to construction, in accordance with CPW-recommended protocol. If active burrowing owl nests are observed within CPW’s recommended species-specific buffer, a consultation with CPW is recommended to determine appropriate mitigation measures.

7.3. Other Raptors

There is suitable non-eagle raptor nesting habitat (e.g., trees and artificial structures) within ½ mile of the Site, however, no raptor nests or nesting activity were observed within ½ mile of the Site during the field surveys.

If construction begins between February 1 through July 31, additional raptor nesting surveys are recommended. If active raptor nests are observed within CPW’s recommended species-specific buffers, a consultation with CPW is recommended to determine the appropriate mitigation measures.

7.4. Migratory Birds

Suitable non-raptor nesting habitat (e.g., surface topography and vegetation) is present at and immediately surrounding the Site, however, no nests or nesting activity were observed during the field surveys.

If construction begins between April 1 through August 31, migratory bird nesting surveys are recommended by qualified biologists within seven (7) days of the start of construction. If any active nests are found, Crestone will provide work zone buffers around them while they remain active.

7.5. Threatened, Endangered, and Candidate Species

The only Colorado state-listed threatened or endangered (T&E) species that has potential to occur at the Site is the burrowing owl, which is discussed above.

The IPaC report listed eight (8) federally listed threatened, endangered, or candidate species that have potential to exist within or in the immediate vicinity of the Site. These species include: the Gray Wolf (*Canis lupus*), eastern black rail (*Laterallus jamaicensis ssp. jamaicensis*), piping plover (*Charadrius melodus*), whooping crane (*Grus americana*), Ute ladies'-tresses (*Spiranthes diluvialis*), western prairie fringed orchid (*Platanthera praeclara*), monarch butterfly² (*Danaus plexippus*), and pallid sturgeon (*Scaphirhynchus albus*). No suitable habitat for any of these species was identified at the Site.

No further action is recommended for federally listed species.

7.6. Wetlands, Waters of the U.S., and Floodplains

There are no potential wetlands or waters of the U.S. within 500 feet of the Site. There is one NWI-mapped stream, a tributary to Coal Creek, approximately 950 feet south of the Site. This feature was observed to have an ordinary high-water mark. No additional wetlands, water bodies, or floodplains were documented or observed within or adjacent to the Site. As a result, no impacts to any potential wetlands or waters of the U.S. are expected as a result of project activities associated with the Site.

The Site is not located within a Federal Emergency Management Agency (FEMA)-mapped 100-year floodplain.

No further action is recommended.

7.7. Noxious Weeds and Vegetation

Scotch thistle (*Onopordum acanthium*), a Colorado State List B noxious weed, Common mullein (*Verbascum thapsus*), and puncturevine (*Tribulus terrestris*), Colorado State List C noxious weeds, were observed throughout the location.

No action required at this time; weed management may be necessary during eventual reclamation.

² The monarch butterfly is currently a USFWS candidate species and is not yet listed as threatened or endangered. There are generally no section 7 requirements for candidate species; however, efforts to conserve this species and its associated habitats are strongly encouraged while an official federal listing determination is being considered.

7.8. High Priority Habitats

The Site is located within one CPW-mapped High Priority Habitat: Pronghorn Winter Concentration Area.

Big game protection measures are addressed in the previous sections of this WMP.

7.9. Safety or Other Concerns

No safety issues or other concerns were identified at the Site.

No further action is recommended.

8. SUMMARY

The Site is located within one CPW-mapped High Priority Habitat: Pronghorn Winter Concentration Area. Crestone consulted with CPW regarding this proposed development within this HPH and agrees to pay the direct and indirect impact mitigation fees calculated by CPW.

Suitable burrowing owl habitat was identified within the CPW-recommended species-specific buffer of ¼ mile of the Site. Suitable nesting habitat for raptors and non-raptor migratory birds was identified within applicable CPW-recommended species-specific buffers. **Burrowing owl and nesting surveys will be conducted by qualified biologists in accordance with agency-recommended protocols. If active nests are observed within the applicable buffers, CPW will be consulted, and appropriate mitigation measures will be implemented as needed.**

PHOTOS



Photo 1. North of the Site facing south.



Photo 2. East of the Site facing west.



Photo 3. South of the Site facing north.



Photo 4. West of the Site facing east.

LITERATURE CITED

- Energy and Carbon Management Commission. 2021. Permitting Process 300 Series. Colorado Department of Natural Resources.
- Energy and Carbon Management Commission. 2021. Protection of Wildlife Resources 1200 Series. Colorado Department of Natural Resources.
- Colorado Parks and Wildlife. 2020. Colorado Parks and Wildlife’s (CPW) Recommendations to Avoid and Minimize Impacts to Wildlife from Land Use Development in Colorado. Colorado Department of Natural Resources.
- Colorado Parks and Wildlife. 2020. Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors. Colorado Department of Natural Resources.
- National Resources Conservation Service. 2006. National Coordinated Major Land Resource Area (MLRA) Version 4.2. U.S. Department of Agriculture, National Soil Survey Center.
- U.S. Bureau of Land Management. 2002. Environmental Impact Statement and Planning Amendment for the Powder River Basin Oil and Gas Project. U.S. Department of Interior.
- U.S. Bureau of Land Management. 2009. CBM Programmatic Wildlife Monitoring and Protection Plan for the Buffalo Field Office. U.S. Department of Interior.
- U.S. Fish and Wildlife Service. IPaC Information for Planning and Consultation. <https://ecos.fws.gov/ipac/>. Accessed February 04, 2024.

APPENDIX A

Environmental Site Assessment Results



ENVIRONMENTAL SITE ASSESSMENT



Project Name:	Chico 4-65 26-25 North	County, State:	Arapahoe County, CO
Report Date:	4/4/2024	Region:	DJ Basin
Inspection Date:	2/19/2024	Field Name:	Wildcat
Inspector Name:	Tom Haight, Dave Ames	Location:	S26 T4S R65W
ESA Type:	New Development	Project Lat-Long:	39.6767560, -104.6393557

RAPTORS

Bald and Golden Eagle Habitat:	No	Status:	CLEARED
Bald and Golden Eagle Active Nests:	No		
No bald eagle (<i>Haliaeetus leucocephalus</i>) or golden eagle (<i>Aquila chrysaetos</i>) nests or nesting activity were observed within ½ mile of the Site during the field surveys. There is no suitable eagle nesting habitat (e.g., trees and cliffs) within ½ mile of the Site.			
Bald Eagle Winter Night Roost/Communal Roost:	No	Status:	CLEARED
There are no CPW-mapped bald eagle winter night roosts / communal roosts within 1/2 mile of the Site.			
*Burrowing Owls and Black-Tailed Prairie Dog Habitat:	Yes	Status:	TEMPORARILY CLEARED
*Burrowing Owl nests:	No		
Suitable burrowing owl (<i>Athene cunicularia</i>) habitat (i.e., black-tailed prairie dog colony) was identified approximately 0.22-mile north mile of the Site, within the CPW-recommended 1/4 mile species specific buffer.			
Other Raptor Habitat:	Yes	Status:	TEMPORARILY CLEARED
Other Raptor Nests:	No		
There is suitable non-eagle raptor nesting habitat (e.g., trees and artificial structures) within 1/2 mile of the Site, however, no raptor nests or nesting activity were observed within 1/2 mile of the Site during the field surveys.			

OTHER BIRDS

Grouse or Prairie Chicken High Priority Habitats:	No	Status:	CLEARED
The Site is not within any grouse or prairie chicken HPHs.			
Non-Raptor Migratory Bird Habitat:	Yes	Status:	TEMPORARILY CLEARED
Non-Raptor Migratory Bird Nests:	No		
Suitable non-raptor nesting habitat (e.g., surface topography and vegetation) is present at and immediately surrounding the Site, however, no nests or nesting activity were observed during the field surveys.			

MAMMALS

Big Game High Priority Habitats:	Yes	Status:	MITIGATION REQUIRED
The Site is located within one CPW-mapped High Priority Habitat: Pronghorn Winter Concentration Area.			
** Preble's Meadow Jumping Mouse (PMJM) Habitat:	No	Status:	CLEARED
There is no suitable PMJM habitat at the Site. Not a constraint.			
Swift Fox Habitat:	No	Status:	CLEARED
Swift Fox Dens:	No		
The Site is not within CPW-mapped swift fox overall range, and no swift fox habitat was observed during the survey. Swift fox habitat is mapped approximately 0.47 miles south of the Site.			

VEGETATION

**Ute ladies'-tresses orchid (ULTO):	No	Status:	CLEARED
There is no suitable Ute ladies'-tresses orchid habitat at the Site. Not a constraint.			
Colorado State Noxious Weeds - List A,B,C:	Yes	Status:	CLEARED
Scotch thistle (<i>Onopordum acanthium</i>), a Colorado State List C noxious weed, common mullein (<i>Verbascum thapsus</i>), a Colorado State List C noxious weed, and puncturevine (<i>Tribulus terrestris</i>), a Colorado State List C noxious weed, were observed throughout the location.			

Current Land Use:	Rangeland and O&G	Future Land Use:	Rangeland and O&G
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ENVIRONMENTAL SITE ASSESSMENT



AQUATIC HABITATS

Aquatic High Priority Habitats:	No	Status:	CLEARED
There are no Aquatic High Priority Habitats within 1000 feet of the Site.			
Wetlands/WOUS:	No	Status:	CLEARED
There are no NHD- or NWI-mapped features overlapping or within 500 feet of the Site. There is one NWI-mapped stream, a tributary to Coal Creek, located approximately 950 feet south of the Site. this feature was observed to have an ordinary high-water mark. No impacts to any potential wetlands or waters of the U.S. are expected as a result of project activities associated with the Site. The Site is not located within any FEMA-mapped 100-year floodplain.			

OTHER/SAFETY

Other Issues:	No	Status:	CLEARED
None.			
Safety Issues:	No	Status:	CLEARED
None.			

FORM 2A

Is HPH Present (309.e(2)A)?	Yes
If <u>NO</u>, then Wildlife <u>Protection</u> Plan Needed (1201.a)?	No
If <u>YES</u>, then Wildlife <u>Mitigation</u> Plan Needed (1201.b)?	Yes
Is project in State Park or Wildlife Area (309.e(2)A)?	No
Is project in federally designated critical habitat (309.e(2)B)?	No
**Federal or *Colorado T&E Species Present (309.e(2)B)?	No
CPW Consultation Needed?	Yes
Vegetation removal scheduled April 1 to August 31 (1202.a(8))?	TBD
Working Pad Surface 500 to 1000' hydraulically upgradient from a HPH (1202.a(10))?	No
Density of O&G locations exceed 1 per square mile w/in HPH (1202.d)?	Yes
If <u>YES</u>, then Compensatory Mitigation Plan Needed (1203.a(1))	Yes

FIELD DATA COLLECTED

GENERAL COMMENTS

Site Photos?	Yes	There is suitable burrowing owl nesting habitat present within 1/4 mile of the Site. There is suitable non-eagle raptor and migratory bird nesting habitat present. Additional wildlife surveys are recommended prior to the start of construction to ensure no sensitive wildlife resources will be impacted.
Reference Area Photos?	Yes	
Updated Aerial Imagery Taken?	Yes	
Ground Control Points?	Yes	
Wetland Determination Data Form?	No	

Reviewed By: Russell Beam
Signature:

Title: Senior Environmental Manager

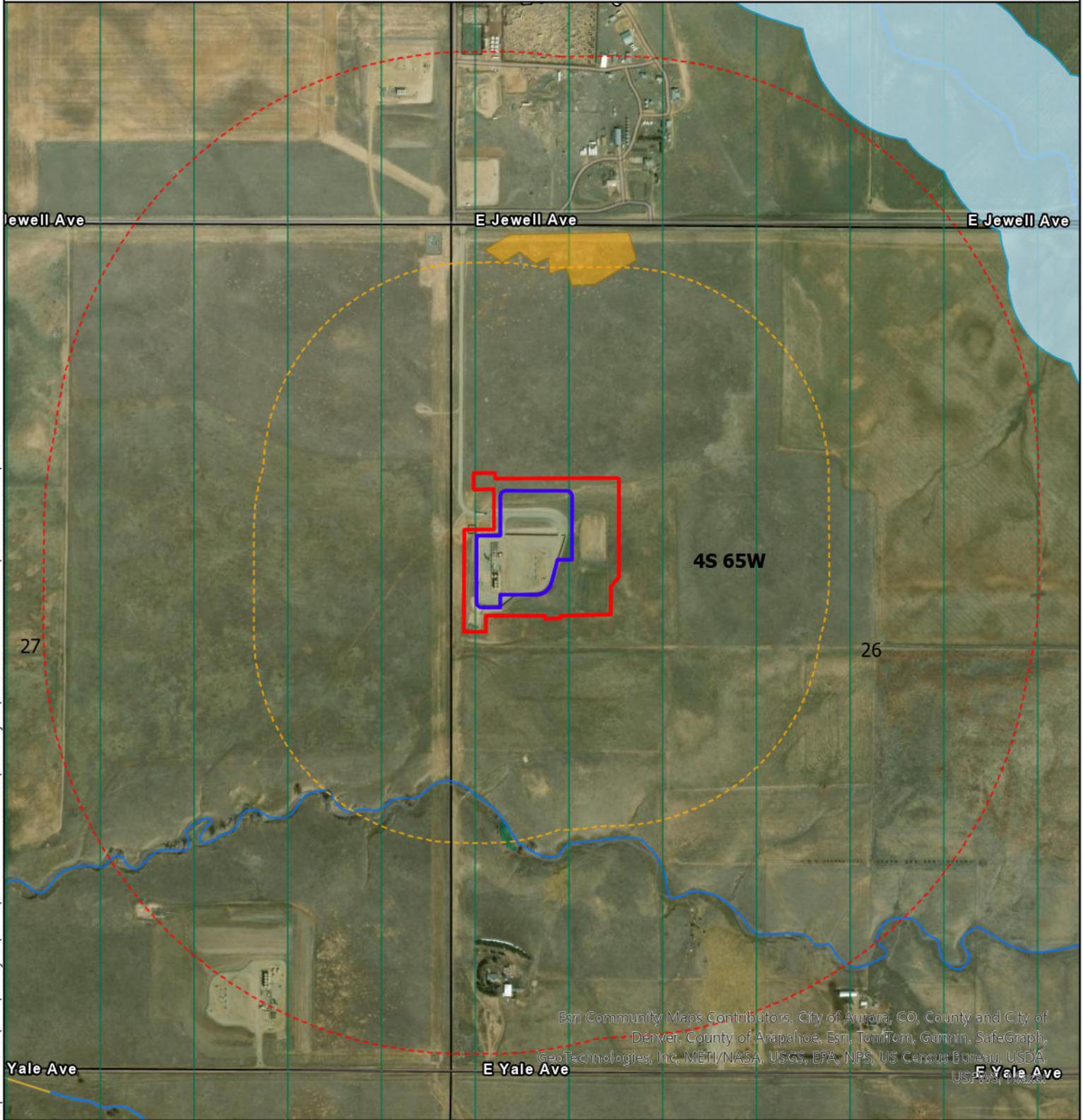
APPENDIX B
Environmental Site Map

CRESTONE PEAK RESOURCES OPERATING, LLC
 (CIVITAS RESOURCES)
 CHICO 4-65 26-25 NORTH
 SWNW S26, T4S, R65W, 6th P.M.
 ARAPAHOE COUNTY, COLORADO

Prepared For:



Prepared By:



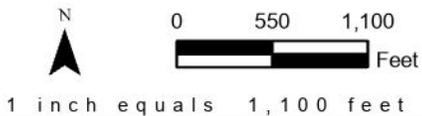
Map Location: S:\RPGR\00 Projects\Civitas\Crestone Peak Resources\2024 Projects\Chico 4-65 26-25 North Pad\2 - Environmental\5 - Wildlife

Esri Community Maps Contributors, City of Aurora, CO, County and City of Denver, County of Arapahoe, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NOAA

ENVIRONMENTAL MAP

- ▭ Working Pad Surface
- ▭ Oil & Gas Location
- 0.25-Mile Survey Radius
- 0.5-Mile Survey Radius
- Burrowing Owl Habitat
- Aquatic Native Species Conservation Waters HPH
- Pronghorn Winter Concentration Area HPH
- NHD-Mapped Stream/River
- NHD-Mapped Connector
- NWI-Mapped Riverine
- NWI-Mapped Forested/Shrub Riparian Area

Projection: WGS 1984
 Date: 04/03/2024
 Drafted by: BRH



APPENDIX C

Best Management Practices (BMPs)

Avoidance and Minimization Measures – Best Management Practices (BMPs)

Indirect Impacts may be avoided or minimized through the application of alternative siting and Rule 1202 operating requirements. Below is a description of Best Management Practices (BMP) incorporated into the proposed Oil and Gas Operations that Crestone Resources Operating, LLC will implement for the purposes of minimizing impacts to wildlife in Pronghorn Winter Concentration Areas.

- Crestone will avoid construction of a new location and access road within CPW-identified Pronghorn Winter Concentration Area by using an existing location and existing access road. The majority of the new disturbance area overlaps the previously disturbed from initial development of this location.
- Crestone will utilize an 8-foot opaque privacy fence installed around the production pad. This fence design does not contain open gaps between railings that could trap wildlife. The fence will be installed around the working pad surface following interim reclamation to allow big game to graze on the reclaimed lands.
- Crestone will avoid installation of new electrical infrastructure by using existing infrastructure.
- Crestone will utilize a full-wrap sound wall during the development of this location, significantly minimizing noise and light impacts.
- Crestone will not install any permanent lighting at this location, significantly minimizing light impacts.
- Crestone will utilize utility power as a power source for the permanent production facilities, significantly minimizing noise impacts.
- Crestone will reclaim/restore big game habitats with native shrubs, grasses and forbs identified by CPW that contribute to optimal big game habitat and other wildlife appropriate to the ecological site.
- Crestone will plan to perform interim reclamation as early as reasonably possible following their active operations. Currently, interim reclamation is planned prior to the start of the pronghorn winter season.
- Crestone will preclude the use of CPW-identified aggressive non-native grasses and shrubs in big game habitat reclamation.

In addition to conforming to requirements pursuant to the 1200 Series Rules described above, Crestone will exercise the following non-species-specific wildlife BMPs as applicable to the Site:

- Inform and educate employees and contractors on wildlife conservation practices, including no harassment or feeding of wildlife;
- Consolidate and centralize fluid collection and distribution facilities to minimize impact to wildlife;
- Adequately size infrastructure and facilities to accommodate both current and future gas production;

- Protect culvert inlets from erosion and sedimentation and install energy dissipation structures at outfalls;
- Implement fugitive dust control measures;
- Install screening or other devices on the stacks and on other openings of heater treaters or fired vessels to prevent entry by migratory birds;
- Minimize rig mobilization and demobilization by completing or re-completing all wells from a given well pad before moving rigs to a new location;
- To the extent practicable, share and consolidate new corridors for pipeline rights-of-way and roads to minimize surface disturbance;
- Engineer new pipelines to reduce field fitting and reduce excessive right-of-way widths and reclamation;
 - Mow or brush hog vegetation where appropriate, leaving root structure intact, instead of scraping the surface, where allowed by the surface owner;
 - Limit access to Oil and Gas access roads where approved by surface owners, surface managing agencies, or local government;
 - Post speed limits and caution signs to the extent allowed by surface owners, Federal and state regulations, local government, and land use policies;
- Use wildlife-appropriate fencing where acceptable to the surface owner;
- Use topographic features and vegetative screening to create seclusion areas, where acceptable to the surface owner;
- Use remote monitoring of well production to the extent practicable;
- Reduce traffic associated with transporting drilling water and produced liquids through the use of pipelines, large tanks, or other measures. Crestone estimates approximately 20-23 passenger vehicle roundtrips per day and 11-14 multiple-unit truck roundtrips per day during the drilling phase and approximately 2 passenger vehicle roundtrips per day during the first pronghorn winter season following initial production. Initial flowback, during which the highest volume of trucked produced water will leave the site, is anticipated to occur outside the pronghorn winter season;
- Install automated emergency response systems (e.g., high tank alarms, emergency shutdown systems; and
- Avoid dust suppression activities within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.

APPENDIX D

CPW Consultation (Direct Impact Mitigation Fee)

From: [Marette - DNR, Brandon](#)
To: [Lilah Hubbard](#)
Cc: [Jeff Annable](#); [Scott Farkas](#); [Nathan Bennett](#); [Brent Hoepfner](#); [Travis Harris - DNR](#); [Lexi Hamous-Miller - DNR](#)
Subject: [EXTERNAL EMAIL] Re: Chico 4-65 26-25 North CPW Follow Up - ALA Waiver
Date: Friday, March 29, 2024 11:42:00 AM
Attachments: [Outlook-amncotag.png](#)
[Outlook-bhnbrok6.png](#)
[Outlook-snlssvr.png](#)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If you are unsure and require assistance, please submit a help desk ticket.

Good morning Lilah,

Thanks for your (and your team's) patience with my reply, and for emails with updated info & BMPs.

Per my action items:

1) Yes, I approve of Crestone's waiver request to complete a formal ALA analysis for the Chico 4-65 26-25 Pad only, since Crestone is expanding this existing active location, and is not expanding an existing access road. Yet I appreciate Crestone informally discussing potential alternative locations below.
2) Thanks for your updated **direct** impacts table. Even though this new disturbance is more than 11.0 acres, given that these permanent and temporary disturbances are occurring next to an existing active location, CPW does not see the need to exceed the flat fee assessed for smaller disturbances of 11.0 acres or less. Therefore, CPW recommends the baseline direct mitigation flat fee of \$13,750.00, instead of the calculated \$12,298.50 below.

- One question that I do have - is 12.05 acres really needed for temporary disturbances for just four wells? That number seems high, and the OGLAs & Commissioners may have the same question.

3) Regarding **indirect** fees, CPW recommends the complete avoidance of the Pronghorn wintering season (Jan. 1 to April 30). However, I have also included winter numbers should Crestone's schedule not allow them to complete site pad construction, drilling, and completions outside the winter season. Please choose one (1) of these four (4) numbers in your eventual WMP that I would prefer to review before ECMC submittal.

- Crestone's work is conducted outside the Pronghorn winter season (May 1 to Dec. 31) - either 42.38 acres to mitigate, or paying CPW \$31,151.37 at least 30 days prior to construction, to offset Crestone's HPH indirect impact.
- Crestone's work is conducted within the Pronghorn winter season (Jan. 1 to April 30) - either 74.17 acres to mitigate, or paying CPW \$54,514.89 at least 30 days prior to construction, to offset Crestone's HPH indirect impact.

Should you have any questions, please contact me.

Regards,

Brandon B. Marette, CWB®
Northeast Region Energy Liaison



Direct [\(720\) 880-0819](tel:7208800819)
[6060 Broadway, Denver, CO 80216](https://www.cpwr.com/locations/6060-Broadway-Denver-CO-80216)
brandon.marette@state.co.us
[CPW's Energy Webpage](#)
[CPW's Wildlife Movements Webpage](#)



THINK SAFETY FIRST!

