



# **Wildlife Protection Plan**

**Submitted with Form 2A Application for**

**Blue 3-65 31-32-33**

**Plan Date: August 11, 2021**

**Submitted: September 15, 2021**

**Crestone Peak Resources' Wildlife Protection Plan was developed in**

**accordance with COGCC Rule 1201.**

## Wildlife Plan

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**BLUE 3-65 31-32-33**

**Adams County, Colorado**

**August 11, 2021**

Prepared for:

**Crestone Peak Resources**

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Denver, CO 80202



Prepared By:

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Apex Job No.: 125.1803.05.0053

## 1. Introduction

Apex Companies, LLC (Apex) completed a biological assessment of the proposed pad construction and drilling operations at the Blue 3-65 31-32-33 Oil and Gas Location (Location) for Crestone Peak Resources (CPR). This effort included a desktop review and site survey, performed on April 21, 2021, to identify sensitive resources with potential to be affected by construction of the Location and subsequent operations. This effort and report provide CPR with an assessment of potential adverse impacts to sensitive natural resources, including vegetative communities, surface waters, and wildlife. The desktop review sources included recent and historical aerial imagery, the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD), the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Mapper, the USFWS Information for Planning and Consultation (IPaC) system, Colorado Parks and Wildlife (CPW) Species Activity Mapping (SAM) data, CPW High Priority Habitat (HPH) data layers, and Apex's proprietary database of over 1,500 mapped raptor nests throughout the Denver-Julesburg (DJ) Basin

## 2. Oil and Gas Location Description

The Location is located in Section 34, township 3 south, range 65 west in Adams County, Colorado (Figure 1). The Location consists of a 14.4-acre disturbance area, consisting of a proposed pad site and 1,470-foot access road, located one-half mile south of East 26<sup>th</sup> Avenue and 0.2 mile southeast of the Martin Marietta - Monaghan Materials Facility in the City of Aurora. Access to the proposed pad along the access road comes from the east from the existing Mustang Compressor Station access route. The Site is located on the north-northwest side of the existing Mustang Compressor Station site (Figure 2). Interstate 70 is approximately one-third mile south. Seven (7) wells are proposed for the Location.

The Location lies within a field dominated by smooth brome (*Bromus inermis*) and, to a lesser extent, prickly lettuce (*Lactuca serriola*), both non-native species well suited to disturbed fields.

## 3. COGCC: High Priority Habitats and Other Protected Resources

### Findings

The Location does not occur within any High Priority Habitats (HPH) designated by CPW for application in the Colorado Oil and Gas Conservation Commission's (COGCC) Series 1200 rules. The closest HPHs are First Creek, an Aquatic Native Species Conservation Water (ANSCW) over one mile to the southwest across Interstate 70, and a Mule Deer Migration Corridor over two miles to the northeast on Box Elder Creek (Figure 3). Neither are concerns for the Location.

### Resource Management Recommendations

The Location is greater than 500 feet from the nearest potential ordinary high water mark within First Creek so is not subject to restrictions described in COGCC 1200 Series Rule 1202.c(1)R regarding proximity to Native Aquatic Species Conservation Waters. No part of the Location lies within the Mule Deer Migration Corridor HPH along Box Elder Creek, therefore restrictions described in 1200 Series Rule 1202.d(3) do not affect the Location. There are no other HPHs or other similar protected resources within proximity to the Location; no further action is recommended.

## 4. Raptors

### Findings

There are trees suitable for nesting bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*) within ½ mile of the Location, but no eagle nests observed. The nearest mapped bald eagle nest is greater than two miles to the northeast. The nearest CPW-mapped bald eagle winter night roost is over five miles to the southwest.

Three known non-eagle raptor nests are located within one-half mile of the Location, with additional trees suitable for other nesting raptors within one-half mile. Two nests were observed as inactive during the time of the field survey, and a third was observed as active with great-horned owls with one large nestling present within. However, this nest is located approximately 0.44 mile south of the Location on the opposite side of Interstate 70 and will not pose a constraint to construction or operations at the Location (Figure 2). There is an additional potential for either the Swainson's hawk or red-tailed hawk to nest on structures although no such nests or associated raptor activity was observed. There is also potential for ground nesting, albeit low, for the ferruginous hawk within one-half mile. CPW recommends a one-quarter-mile buffer for active Swainson's nests, one-third mile buffer for active red-tailed hawk nests, and one-half mile for active ferruginous hawk nests (CPW, 2020).

### Resource Management Recommendations

If activities at the Location start between December 1 and July 31, CPW recommends surveys for nesting eagles and non-eagle raptors.

## 5. Agriculture

### Findings

The Location is located within the City of Aurora, on property zoned as Airport District (AD) (Aurora Planning, 2021). Aerial imagery suggests that this property has been in agricultural production in the past, likely dryland grass-hay production (Google Earth, 2021). No evidence of recent farming

was observed onsite; however, 2020 Google Earth imagery suggests the site has been mowed, again, possible for grass hay harvesting.

### Resource Management Recommendations

None.

## 6. Summary of Findings

Following a review of sensitive resources with potential to be affected by proposed pad construction and drilling operations at the Blue 3-65 31-32-33 pad by CPR, potential adverse impacts to the ecosystem are anticipated to be minimal and include disturbances to either ground or structure nesting birds. Possible plant species associated with this habitat likely include smooth brome and prickly lettuce. Construction at the Location would not impact waters of the U.S., federally-threatened or endangered species or CPW High Priority Habitats.

## 7. Implementation of Rule 1202.a. and 1202.b. Operating Requirements

- Rule 1202.a.(1): Operators will install and utilize bear-proof dumpsters in black bear habitat: The Location is not located within black bear habitat.
- Rule 1202.a.(2).A. and B.: Operators will disinfect water suction hoses and water tanks withdrawing from or discharging into natural surface waters using a CPW-approved disinfectant or with water greater than 140° F for at least 10 minutes: No activities at the Location will require withdrawals from or discharge into natural surface waters.
- Rule 1202.a.(3): Operators will not situate new staging, refueling, or chemical storage areas at new and existing locations; within 500 feet of any river, perennial or intermittent stream, lake, pond, or wetland: The Location is greater than 500 feet from the nearest surface water. First Creek, which appears to be an ephemeral stream or a vegetated swale is the closest surface water at 1.35 miles to the southwest, across Interstate 70.
- Rule 1202.a.(4).A., B., and C.: Operators will fence and net or install other CPW-approved exclusion devices on new or existing (if COGCC determines it's necessary to protect Wildlife Resources) drilling pits, production pits, and other pits associated with Oil and Gas Operations that are intended to contain Fluids: CPR will fence and net or install other CPW-approved exclusion devices on new or existing drilling pits, production pits and other pits as determined necessary by COGCC.
- Rule 1202.a.(5): Operators will install wildlife escape ramps for trenches that are left open for more than 5 consecutive days: CPR will comply with this directive.

- Rule 1202.a.(6): Operators will use CPW-recommended seed mixes for Reclamation and use CPW-recommended fence designs when consistent with the Surface Owner's approval and any local soil conservation district requirements: CPR will comply with this directive.
- Rule 1202.a.(7): Operators will use CPW-recommended fence designs when consistent with the Surface Owner's approval and any Relevant Local Government requirements: CPR will comply with this directive.
- Rule 1202.a.(8): Operators will conduct all vegetation removal necessary for operations outside of the nesting season for migratory birds (April 1 to August 31) or may need to conduct preconstruction nesting migratory bird surveys within the approved disturbance area prior to any vegetation removal during the nesting: CPR will comply with this directive. Pre-construction nesting bird surveys will be performed no more than 7 days prior to the start of site disturbing activities.
- Rule 1202.a.(9): Operators will treat drilling pits, production pits, and any other pits containing water that provides a medium for breeding mosquitoes to control mosquito larvae that may spread West Nile virus to Wildlife Resources season: CPR will comply with this directive.
- Rule 1202.a.(10).A. thru E.: Operators will employ the following minimum BMPs on new locations with a Working Pad Surface located between 500 feet and 1000 feet hydraulically upgradient from a High Priority Habitat identified in Rule 1202.c.(1).Q–S:
  - A. contain flowback and stimulation fluids in tanks 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 locations 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 location during drilling and completion operations; and
  - E. not construct or utilize any pits, except existing previously approved pits that were operated and maintained in compliance prior to January 15, 2021.

The Location is approximately greater than 1,000 feet upgradient from First Creek, an Aquatic Native Species Conservation Water (identified at 1202.c.(1).R) and so is statutorily not required to implement Rule 1202.a.(10).A. thru E. Figure 3 depicts the proximity of First Creek to the Location.

- Rule 1202.b.: Operators will bore, rather than trench, pipeline/utility crossings of perennial streams identified as aquatic High Priority Habitat, unless the Operator obtains a signed waiver from CPW and an approved Form 4 Sundry Notice from COGCC: No flowline or other underground utility associated with the Location will cross either a perennial stream or an aquatic HPH.

## 8. Site-Specific BMPs

The following site-specific wildlife BMPs will be implemented at the Location. These BMPs are applicable for entry in Form 2A under General Wildlife:

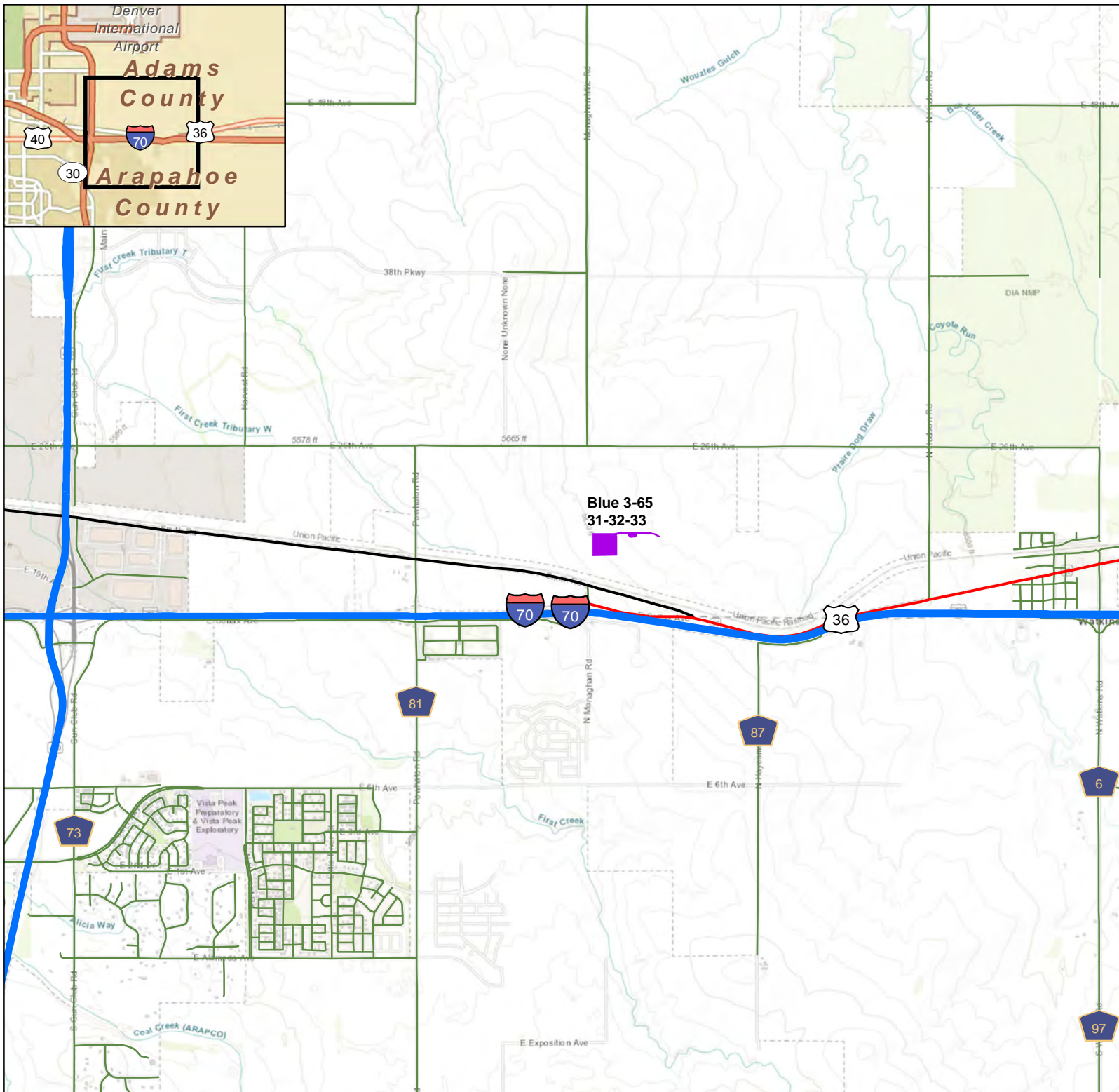
1. Inform and educate employees and contractors on wildlife conservation practices, including no harassment or feeding of wildlife;
2. Consolidate and centralize fluid collection and distribution facilities to minimize impact to wildlife;
3. Adequately size infrastructure and facilities to accommodate both current and future gas production;
4. Protect culvert inlets from erosion and sedimentation and install energy dissipation structures at outfalls;
5. Implement fugitive dust control measures;
6. Install screening or other devices on the stacks and on other openings of heater treaters or fired vessels to prevent entry by migratory birds;
7. Minimize rig mobilization and demobilization by completing or re-completing all wells from a given well pad before moving rigs to a new location;
8. To the extent practicable, share and consolidate new corridors for pipeline rights-of-way and roads to minimize surface disturbance;
9. Engineer new pipelines to reduce field fitting and reduce excessive right-of-way widths and reclamation;
10. Mow or brush hog vegetation where appropriate, leaving root structure intact, instead of scraping the surface, where allowed by the surface owner;
11. Limit access to oil and gas access roads where approved by surface owners, surface managing agencies, or local government;
12. Post speed limits and caution signs to the extent allowed by surface owners, Federal and state regulations, local government, and land use policies;
13. Use wildlife-appropriate fencing where acceptable to the surface owner;
14. Use topographic features and vegetative screening to create seclusion areas, where acceptable to the surface owner;

15. Use remote monitoring of well production to the extent practicable;
16. Reduce traffic associated with transporting drilling water and produced liquids through the use of pipelines, large tanks, or other measures; and
17. Install automated emergency response systems (e.g., high tank alarms, emergency shutdown systems).

## 9. References

- Aurora Planning. 2021. Arapahoe County Zoning Maps. Available online at [https://www.auroragov.org/city\\_hall/maps/planning\\_and\\_zoning\\_maps](https://www.auroragov.org/city_hall/maps/planning_and_zoning_maps). Accessed 2021.
- Colorado Department of Agriculture. 2021. Noxious Weed Species ID. Available online at <https://ag.colorado.gov/conservation/noxious-weeds/species-id>. Accessed April 2021.
- (CPW) Colorado Parks and Wildlife. 2020. Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors. Available online at <https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/Raptor-Buffer-Guidelines.pdf>. Accessed April 2021.
- Google Earth V 7.3. (April 23, 2021. Aurora, Colorado. 39.746379° north, -104.657427° west, eye altitude at 6,000 feet. Accessed April 2021.
- (NRCS) Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions. Available online at <https://casoilresource.lawr.ucdavis.edu/gmap/>. Accessed April 2021.
- (USFWS) U.S. Fish and Wildlife Service. 2020. Revised List of Migratory Birds. Federal Register 85(74):21282 – 21305.
- (USFWS) U.S. Fish and Wildlife Service. 2021. IPaC – Information Planning and Conservation System. Available online at: <http://ecos.fws.gov/ipac/>. Accessed April 2021.





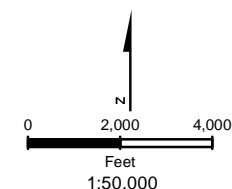
Blue 3-65 31-32-33

Figure 1

## Vicinity Map

### Legend

  Pad Footprint



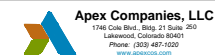
Inspector: MJG  
Inspection Date: 4/21/2021

### Site Characteristics

Legal Location: SW4 Sec 34, T3S R65W  
County: Adams  
Land Use: Rangeland  
Pre-Construction Vegetation Coverage: N/A  
Pre-Construction Vegetation Cover: Grassland  
Topography: 3-5% Slopes  
Run-Off Risk: Low  
Total Disturbed Area: ~14.4 ac  
Soil Type: Platner loam  
Receiving Waters: Unnamed trib, 4,700 ft

### Feature symbols not to scale

REVISED	BY	COMMENT
5/25/2021	AD	Natural Resources Map







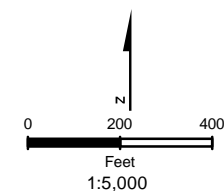
# Blue 3-65 31-32-33

## Figure 2

## Site Map

### Legend

-  Production Well
-  Pad Footprint
-  Disturbance Area
-  Potential BUOW Habitat



Inspector: MJG  
 Inspection Date: 4/21/2021

### Site Characteristics

Legal Location: SW4 Sec 34, T3S R65W  
 County: Adams  
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 Pre-Construction Vegetation Coverage: N/A  
 Pre-Construction Vegetation Cover: Grassland  
 Topography: 3-5% Slopes  
 Run-Off Risk: Low  
 Total Disturbed Area: ~14.4 ac  
 Soil Type: Platner loam  
 Receiving Waters: Unnamed trib. 4,700 ft

*Feature symbols not to scale*

REVISED	BY	COMMENT
5/26/2021	BJB	Natural Resources Map



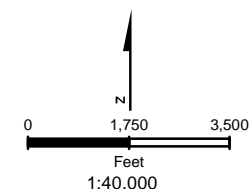
## Blue 3-65 31-32-33

**Figure 3**

### High Priority Habitats

#### Legend

- Disturbance Area
- Half-mile Survey Area around Disturbance Area
- BAEA Nest - Active
- Active GHOW Nest within 1/2 Mile of Project Site
- Inactive Raptor Nest Within 1/2 Mile of Project Site
- Potential BUOW Habitat - Rule 309.e.1 Consultation Habitat
- Burrowing Owl Active Nest Site HPHE1
- Aquatic Native Species Conservation Water
- Mule Deer Migration Corridor HPHE1
- FEMA 100-Year Floodplain
- NHD-Mapped Stream



Inspector: **MJG**  
Inspection Date: **4/21/2021**

#### Site Characteristics

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County: **Adams**  
Land Use: **Rangeland**  
Pre-Construction Vegetation Coverage: **N/A**  
Pre-Construction Vegetation Cover: **Grassland**  
Topography: **3-5% Slopes**  
Run-Off Risk: **Low**  
Total Disturbed Area: **~14.4 ac**  
Soil Type: **Platner loam**  
Receiving Waters: **Unnamed trib. 4,700 ft**

#### Feature symbols not to scale

REVISED	BY	COMMENT
7/16/2021	KJD	Natural Resources Map

