

## Wildlife Protection Plan

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### **SCHMERGE 9-4HZ PAD OIL AND GAS LOCATION** **Weld County, Colorado**

**December 22, 2022**

Prepared for:

**Kerr-McGee Oil & Gas Onshore, LP**

1099 18<sup>th</sup> Street

Denver, CO 80202



Prepared By:

**Apex Companies, L.L.C.**

1746 Cole Blvd., Suite 250

Lakewood, CO 80401

Apex Job No.: 066.1608.01.PRE0043

## 1. Introduction

Apex Companies, LLC (Apex) completed a biological assessment of the proposed pad construction and drilling operations at the Schmerge 9-4HZ pad Oil and Gas Location (Location) for Kerr-McGee Oil and Gas Onshore, LP (KMOG). This effort included a desktop review and site survey, performed on July 1, 2022, to identify sensitive resources that could be affected by the construction of the Location and subsequent operations. This effort and report provide KMOG with an assessment of potential adverse impacts on sensitive natural resources, including vegetative communities, surface waters, and wildlife. The desktop review sources included the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (FEMA 2022), the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Mapper (USFWS 2022b), the USFWS Information for Planning and Consultation (IPaC) system (USFWS 2022a), the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2021), Colorado Parks and Wildlife (CPW) Species Activity Mapping (SAM) data (CPW 2022), CPW High Priority Habitat (HPH) data layers (CPW 2021), recent and historical aerial imagery, 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 within Section 4, Township 5 North, Range 67 West in western unincorporated Weld County, Colorado (Figure 1). The Location consists of a 13.99-acre disturbance area, including a 4.95-acre well pad, a 2.02-acre facility pad, and a 1.19-acre improved access road. The interim reclamation area will encompass 7.01 acres. Thirteen (13) wells are proposed for the Location. Access to the Location is off U.S. Highway 34 (Figure 2). The producing Schmerge 43-4 well (Well API # 123-23144) is near the center of the Location, with its Facility, Schmerge 43,44-4 TB (Facility ID # 451483), offsite, 285 feet south-southeast along the existing access road.

Approximately 3.7 acres of the Location's west side is rangeland dominated by cheatgrass (*Bromus tectorum*), sand sage (*Artemisia filifolia*), and bunchgrasses.

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

### Findings

The Location does not occur within any High Priority Habitats (HPH) designated by CPW pursuant to the COGCC's Series 1200 rules. The closest HPH to the Working Pad Surface is Mule Deer Severe Winter Range at approximately 0.80 miles northwest (Figure 3). Also within one mile is the Cache La Poudre River, an Aquatic Native species Conservation Water. The closest ordinary high-water mark (OHWM) for this river is approximately 0.87 miles to the northeast of the Working Pad Surface. No other HPHs are located within one (1) mile of the Location's Working Pad Surface.

The closest raptor HPHs are two (2) CPW-mapped Bald Eagle Nest Sites approximately 1.12 miles to the northeast of the Location's Working Pad Surface, along the Cache La Poudre River corridor. Apex was able to visually confirm the presence of one (1) of the nests (BAEA\_A053; Figure 3) but could not locate the other nest. The nearest Bald Eagle Roost Site is 1.64 miles to the north-northwest.

The nearest known OHWM is approximately 0.39 miles (2,038 feet) to the northwest within an NHD-mapped intermittent stream that is tributary to the Cache La Poudre River (Figure 4). The Location is greater than 500 feet from the nearest potential OHWM; therefore, it is not subject to restrictions described in COGCC 1200 Series Rule 1202.a(3). The gullies to the west and east of the Location exhibit neither OHWMs, evidence of past surface flows, nor predominance of hydrophytic vegetation.

### Best Management Practices

There are no HPHs or similar protected resources within 1200 Series Rule restricted distances; therefore, no further action is recommended.

## 4. Raptors

### Findings

There are trees suitable for nesting bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*) within 0.5 miles of the Location, however no eagle nests were observed within 0.5 miles. The nearest CPW-mapped bald eagle nests are approximately 1.07 miles northeast of the Location, and Apex was able to visually confirm the presence of one (1) of these nests (BAEA\_A053; Figure 3). The nearest CPW-mapped bald eagle winter night roost area is approximately 1.64 miles north-northwest of the Location.

There are trees and additional habitats suitable for nesting non-eagle raptors within 0.5 miles of the Location. Additional suitable nesting habitats include but are not limited to utility poles, oil and gas equipment, and other miscellaneous structures. One (1) non-eagle raptor nest (RNest\_A1710; Figure 3) was observed 0.23 miles to the southeast of the Location. This nest was inactive at the time of the site inspection. Three (3) additional nests were observed within 0.5 miles of the improved access road, but greater than 0.5 mile from the Location (RNest\_A1676, RNest\_A1677, RNest\_A1678; Figure 3). All of these nests were also inactive at the time of the site inspection.

### Best Management Practices

If Location construction starts between December 1 and July 31, CPW recommends surveys for nesting non-eagle raptors. If construction starts between February 1 and August 15, CPW recommends surveys for nesting non-eagle raptors.

## 5. Burrowing Owls

### Findings

There is suitable potential burrowing owl habitat (i.e., a prairie dog colony) in nearly all directions within 0.25 miles of the Location (BUOW\_A128; Figure 2). Burrowing owls in Colorado are almost exclusively associated with prairie dog colonies, whether active or abandoned by prairie dogs.

CPW-recommended protocol surveys for nesting burrowing owls at BUOW\_A128 were not performed due to limited access to adjacent properties and inability to see all portions of this habitat within 0.25 miles of the Location. Construction is currently scheduled outside of the burrowing owl season in Colorado (March 15 – October 31).

### Best Management Practices

For ground disturbances beginning between March 15 and August 31, 2023, the full three-survey CPW-protocol will be completed no more than 7 days prior to the start of work. If burrowing owls are observed using burrows within 0.25 miles of the Location, KMOG will consult with CPW to determine appropriate mitigation measures.

## 6. Agriculture

### Findings

Aerial imagery suggests that the Location has been a mix of agriculture and rangeland since at least 1985 (Google Earth 2022). As recently as May 2012, the entire Location, with the exception of the gullies and the steeper terrain at the western edge, was being used for agriculture, but approximately 3.7 acres of the western portion began being returned to rangeland by December 2012. Though the remaining approximately 10.3 acres of the Location appears to have been recently used for agriculture, this portion was tilled, and no crop was observed during the site inspection (July 1, 2022).

### Best Management Practices

None.

## 7. Summary of Findings

Following a review of sensitive resources with the potential to be affected by proposed pad construction and drilling operations at the Schmerge 9-4HZ pad by KMOG, potential adverse impacts to the ecosystem are anticipated to be minimal and include disturbances to areas within 0.25 miles of potential burrowing owl nesting habitat, and ground- or structure-nesting birds. Construction at the Location would not impact surface waters, federally threatened or endangered species, or CPW High Priority Habitats.

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

Yes   No   NA  
     

Rule 1202.a.(1): Operators will install and utilize bear-proof dumpsters in black bear habitat

Comment: *Location is not within black bear range.*

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.

Comment: *No Location operations will withdraw from or discharge into natural surface waters.*

Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p><u>Rule 1202.a.(3):</u> 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  Comment: <i>The Location is greater than 500 feet from a persistent surface water or wetland.</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p><u>Rule 1202.a.(4).A., B., and C.:</u> 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.  Comment: <i>KMOG does not utilize pits in the DJ Basin.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(5):</u> Operators will install wildlife escape ramps for trenches that are left open for more than 5 consecutive days.  Comment: <i>KMOG will comply with this directive.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(6):</u> 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.  Comment: <i>KMOG will comply with this directive.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(7):</u> Operators will use CPW-recommended fence designs when consistent with the Surface Owner's approval and any Relevant Local Government requirements.  Comment: <i>KMOG will comply with this directive.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(7):</u> Operators will use CPW-recommended fence designs when consistent with the Surface Owner's approval and any Relevant Local Government requirements.  Comment: <i>KMOG will comply with this directive.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(8):</u> Operators will conduct all vegetation removal necessary for operations outside of the nesting season for migratory birds (April 1 to August 31) or will need to conduct pre-construction nesting migratory bird surveys within the approved disturbance area prior to any vegetation removal during the nesting if hazing or exclusion devices were not installed prior to April 1.  Comment: <i>KMOG 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 if construction begins between April 1 and August 31.</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p><u>Rule 1202.a.(9):</u> 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.  Comment: <i>KMOG does not utilize pits in the DJ Basin.</i></p>

Yes No NA

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.

*Comment: The Location's Working Pad Surface is greater than 1,000 feet from HPHs identified in Rule 1202.c.(1).Q–S. The nearest HPH is 0.87 miles to the northeast of the Location's Working Pad Surface (Figure 3).*

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.

*Comment: The Location does not intersect an HPH or perennial streams.*

## 9. Additional General Operating BMPs

The following site-specific wildlife BMPs will be implemented at the Location:

1. Inform and educate employees and contractors on wildlife conservation practices, including no hunting, 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.
17. Install automated emergency response systems (e.g., high tank alarms, emergency shutdown systems).

## 10. References

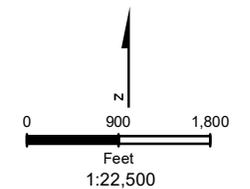
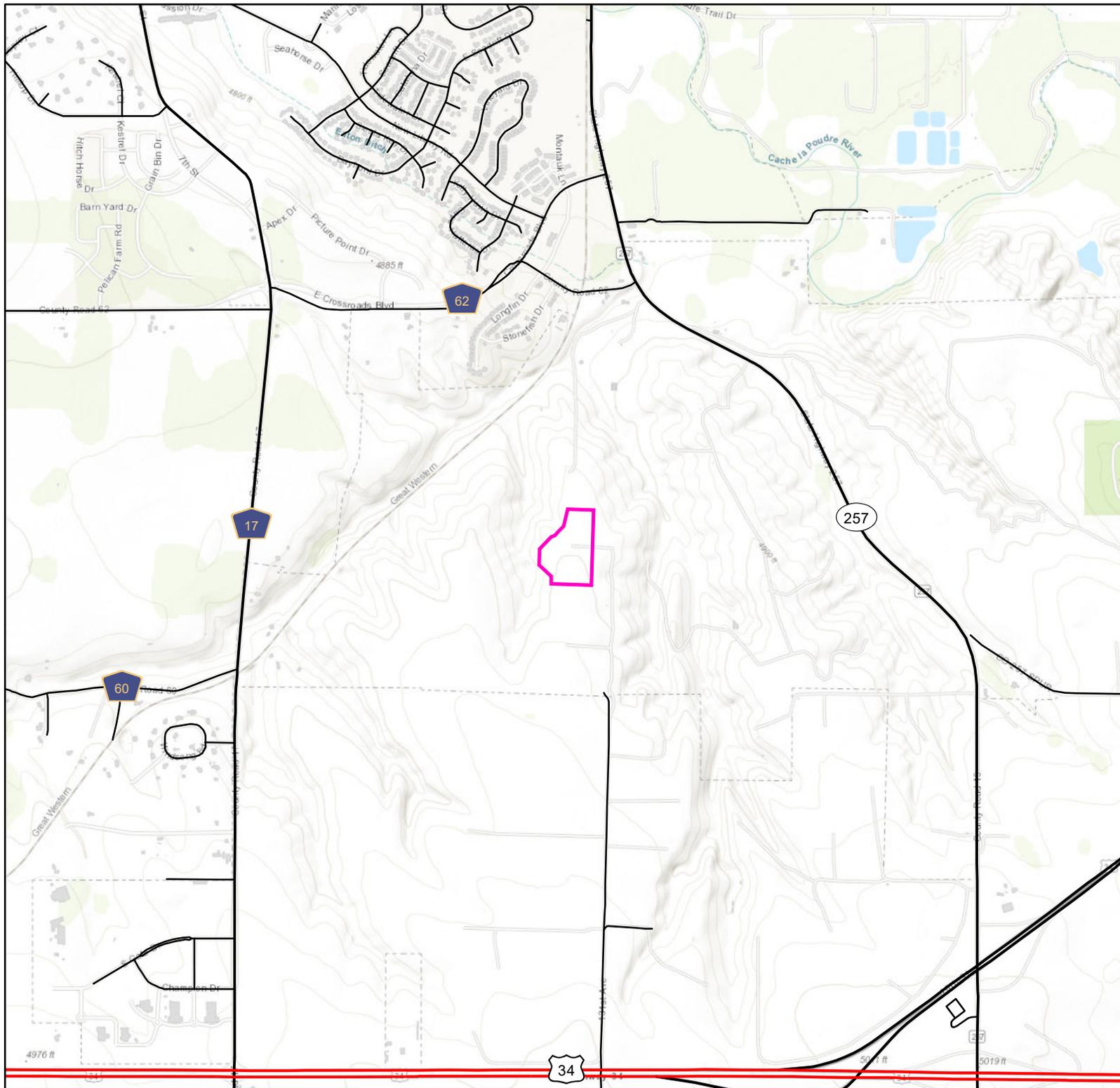
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- (CPW) Colorado Parks and Wildlife. 2021. CPW High Priority (HPH) Data. Available online at <https://www.arcgis.com/home/group.html?id=280f7c0420604edaa66ed6c0311d31d9&searchFacet=card+dropdown+item+details#overview>. (Accessed November 2022)
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- (USGS) U.S. Geological Survey. 2021. National Hydrography Dataset Plus High Resolution. Available online at: <https://www.usgs.gov/national-hydrography/nhdplus-high-resolution>. (Accessed November 2022).

## Schmerge 9-4HZ

### Figure 1 - Vicinity Map

**Legend**

Proposed Location



Inspector: KD  
 Inspection Date: 7/1/2022

**Site Characteristics**

Legal Location: NESW Sec 4, T5N R67W  
 County: Weld

*Feature symbols not to scale*

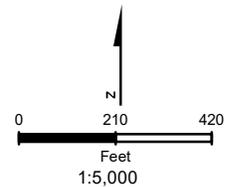
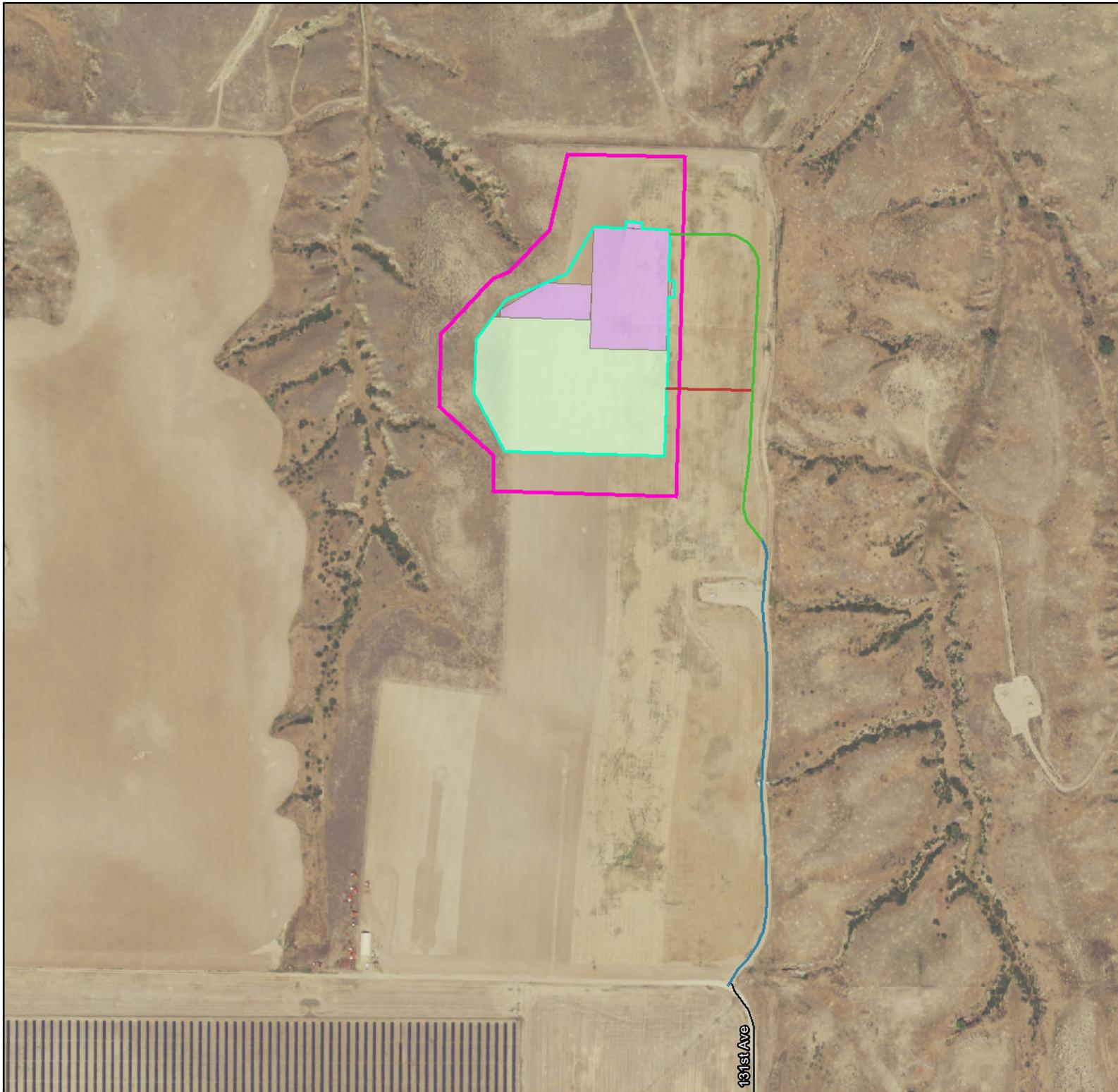
REVISED	BY	COMMENT
11/22/2022	MJW	Natural Resources Map

## Schmerge 9-4HZ

### Figure 2 - Site Map

**Legend**

- Improved Permanent Access Road
- Proposed Permanent Access Road
- Proposed Temporary Access
- Proposed Location
- Facility Pad Surface
- Well Pad Surface
- Working Pad Surface



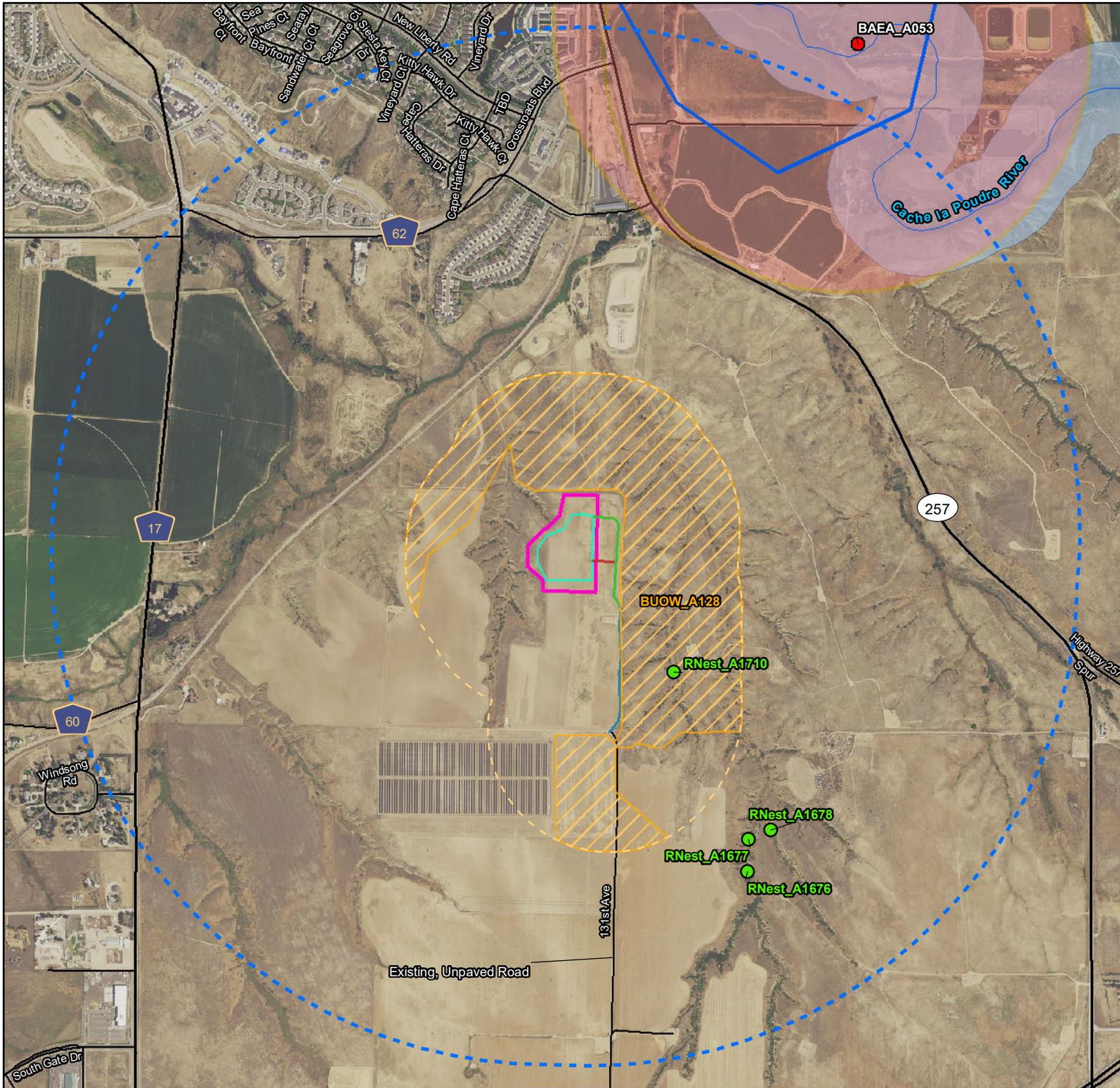
Inspector: **KD**  
 Inspection Date: **7/1/2022**

**Site Characteristics**

Legal Location: **NESW Sec 4, T5N R67W**  
 County: **Weld**

*Feature symbols not to scale*

REVISED	BY	COMMENT
11/21/2022	MJW	Natural Resources Map

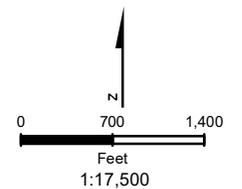


### Schmerge 9-4HZ

### Figure 3 - High Priority Habitats

#### Legend

- Apex-Mapped BAEA Nest
- Raptor Nest - Inactive
- Potential BUOW Habitat - non-HPH
- Stream/River (NHD)
- Improved Permanent Access Road
- Proposed Permanent Access Road
- Proposed Temporary Access
- Working Pad Surface
- Proposed Location
- 1/4-Mile Potential BUOW Habitat Buffer
- 1-Mile HPH Review
- CPW-Mapped BAEA 1/2-mile Nest Buffer
- Aquatic Native Species Conservation Water
- Mule Deer Severe Winter Range (Density)



Inspector: KD  
 Inspection Date: 7/1/2022

#### Site Characteristics

Legal Location: NESW Sec 4, T5N R67W  
 County: Weld

*Feature symbols not to scale*

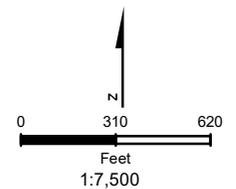
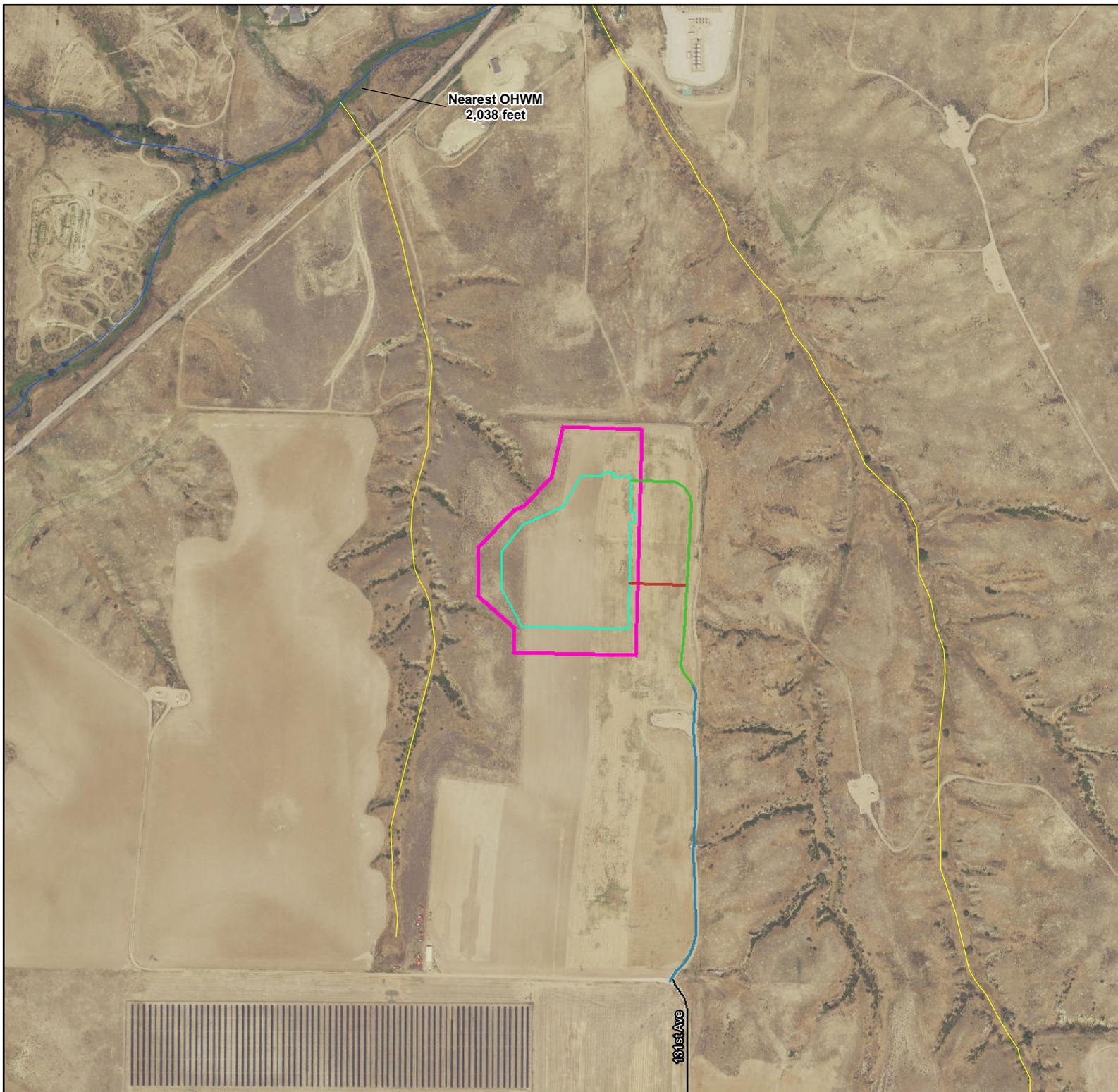
REVISED	BY	COMMENT
11/22/2022	MJW	Natural Resources Map

## Schmerge 9-4HZ

### Figure 4 - Nearest OHWM

#### Legend

- Improved Permanent Access Road
- Proposed Permanent Access Road
- Proposed Temporary Access
- Proposed Location
- Working Pad Surface
- NHD-Mapped Stream
- NHD-mapped Stream – No OHWM Confirmed



Inspector: **KD**  
 Inspection Date: **7/1/2022**

#### Site Characteristics

Legal Location: **NESW Sec 4, T5N R67W**  
 County: **Weld**

*Feature symbols not to scale*

REVISED	BY	COMMENT
11/22/2022	MJW	Natural Resources Map