

# Wildlife Protection Plan

## North Cheyenne Oil and Gas Development

### Pfaffly 1-12

This Wildlife Protection Plan has been prepared by Navex Resources, LLC (Navex) for its North Cheyenne Pfaffly 1-12 Oil and Gas Location in Kit Carson County, Colorado. The Plan addresses the Colorado Oil & Gas Conservation Commission (COGCC) requirement at Rule 304.c.(17) to prepare a Wildlife Protection Plan consistent with Rule 1201.a and with COGCC Wildlife Protection Plan Guidance (June 25, 2021).

#### **1.0 Overview and Environmental Setting**

Navex is proposing to develop an exploratory oil and gas well for production of oil and condensate, natural gas, natural gas liquids, and inert gases, including helium. The well will be developed as a conventional vertical well, approximately 6,000 feet deep. It will be in the following location:

NW ¼ SW ¼ Section 12, Township 11 South, Range 46 West

If the exploratory well is developed for production, oil and condensate will be trucked off site for commercial sale. Produced water will be trucked off site for disposal. Natural gas will be piped underground to tie into the existing Ladder Creek Gathering System operated by Tumbleweed Midstream. Tumbleweed will pipe natural gas underground from its Ladder Creek Helium Plant in Cheyenne Wells, Colorado, to the Colorado Interstate Gas Company's midstream pipeline and will process the natural gas liquids, inert gases, and helium for end users.

The Pfaffly 1-12 well will be on fee surface for production of fee minerals. The Oil and Gas Location will be approximately 3.0 acres during development with a Working Pad Surface of approximately 2.7 acres. After interim reclamation, the production pad will be downsized to an estimated 2.0 acres. The access road will be approximately 1,010 feet long. The off-location flowline corridor will be approximately 200 feet long and will be reclaimed after flowline installation and integrity testing.

The environmental setting is dryland farming. The location is cultivated with row crops. The most recent row crop was wheat.

The site is expected to require 2 days to construct. Well drilling is expected to require 7 to 14 days. Completion is expected to require 6 days. Interim reclamation is expected to require 2 days. Revegetation will occur during the first growing season after well development is complete. During production, the location will have a single operating wellhead, a heated separator, four 300-bbl storage tanks inside of secondary containment for oil and produced water, and a buried gas sales line. There will be an estimated two round trip vehicle trips on and off the location daily during production, one for maintenance and one to transport oil.

#### **2.0 Wildlife Habitat Mapping**

The Oil and Gas Location is not within High Priority Habitat (HPH), as shown on the Wildlife Habitat Map submitted with the Form 2A application. Sources consulted for wildlife mapping are listed in Section 6.0, References. In addition, an environmental field review was conducted by a professional biologist for the North Cheyenne development between September 29 and October 1, 2021. The Wildlife Habitat Map demonstrates that there is no HPH or other critical habitats within 1 mile of the Working Pad Surface. The nearest mapped HPH is lesser prairie chicken Estimated Occupied Range, located approximately 3.3 miles to the south.

### 3.0 Alternative Location Analysis

The location does not meet any requirements for analysis of alternative locations under Rule 304.b.(2).B.

### 4.0 Rule 1202.a Requirements

Table 1 describes how the operator will implement Rules 1202.a.(1-10) and 1202.b for the Oil and Gas Location.

**Table 1. Rule 1202 Requirements**

Provision	Implementation
1202.a.(1)	The location is not in black bear habitat. Food-related waste will be secured to avoid attracting general wildlife and wind-blown trash.
1202.a.(2)	The operator will not withdraw from or discharge into surface waters.
1202.a.(3)	The operator will not situate new staging, refueling, or chemical storage areas within 500 feet upgradient of the ordinary high water mark of any river, perennial or intermittent stream, lake, pond, or wetland.
1202.a.(4)	The Oil and Gas Location will have no drilling, production, or other fluid pits.
1202.a.(5)	Trenches left open for more than 5 consecutive days during construction of flowlines regulated under the 1100 Series Rules will have wildlife escape ramps at a minimum of one ramp per ¼ mile of trench.
1202.a.(6)	When conducting interim and final reclamation pursuant to Rules 1003 and 1004, the operator will use CPW-recommended seed mixes for reclamation when consistent with any local soil conservation district requirements and surface owner use of the location for row crops.
1202.a.(7)	The operator will use CPW-recommended fence designs when consistent with any relevant local government requirements.
1202.a.(8)	The operator 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, the operator will 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, the operator will conduct pre-construction nesting migratory bird surveys within the approved disturbance areas prior to any vegetation removal during the nesting season. If active nests are located, the operator will provide work zone buffers around active nests.
1202.a.(9)	The Oil and Gas Location will have no drilling, production, or other fluid pits.
1202.a.(10)	The Oil and Gas Location is not located between 500 feet and 1000 feet hydraulically upgradient from an HPH identified in Rule 1202.c.(1).Q-S.
1202.b	The operator will have no flowline crossings of perennial streams identified as aquatic HPH that require bores under Rule 1202.b.

### 5.0 General Operating Requirements

Table 2 lists general statewide standard operating requirements to protect wildlife habitat and resources.

**Table 2. General Operating Requirements**

BMP	The Operator Will
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.

<b>BMP</b>	<b>The Operator Will</b>
3	Adequately size infrastructure and facilities to accommodate both current and future gas production.
4	Implement fugitive dust control measures.
5	Install screening or other devices on the stacks and on other openings of heater treaters or fired vessels to prevent entry by migratory birds.
6	Minimize rig mobilization and demobilization by completing or re-completing all wells from a given well pad before moving rigs to a new location.
7	To the extent practicable, share and consolidate new corridors for pipeline rights-of-way to minimize surface disturbance.
8	Mow or brush hog vegetation where appropriate, leaving root structure intact, instead of scraping the surface, where allowed by the surface owner.
9	Limit access to oil and gas access roads where approved by surface owners, surface managing agencies, or local government.
10	Post speed limits and caution signs to the extent allowed by surface owners, federal and state regulations, local government, and land use policies.
11	Use wildlife-appropriate fencing where acceptable to the surface owner.
12	Use topographic features and vegetative screening to create seclusion areas, where acceptable to the surface owner.
13	Use remote monitoring of well production to the extent practicable.
14	Reduce traffic associated with transporting drilling water and produced liquids through the use of pipelines, large tanks, or other measures.
15	Install automated emergency response systems (e.g., high tank alarms, emergency shutdown systems).

## 6.0 References

1. COGCC GIS: [https://cogccmap.state.co.us/cogcc\\_gis\\_online/](https://cogccmap.state.co.us/cogcc_gis_online/)
2. Critical Habitat IPaC Report: <https://ecos.fws.gov/ipac/>.
3. Migratory Birds: <https://www.fws.gov/birds/index.php>.
4. State Protected Species: <https://cpw.state.co.us/learn/Pages/SpeciesProfiles.aspx>.
5. Buffer Zones and Seasonal Restrictions for Colorado Raptors: <https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/Raptor-Buffer-Guidelines.pdf>.
6. U.S. Fish and Wildlife Service: [https://www.fws.gov/southwest/es/documents/R2ES/LPC\\_Conservation\\_Guidance\\_20210727.pdf](https://www.fws.gov/southwest/es/documents/R2ES/LPC_Conservation_Guidance_20210727.pdf) and LEPC\_SSA Analysis Area June 2021.zip File.