

St. Croix Operating, Inc.  
Horseshoe #1  
NENE Section 27 T3S R49W  
Washington County, Colorado

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WILDLIFE MITIGATION PLAN

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## 1) Introduction

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St. Croix Operating, Inc. (St. Croix) has drafted this plan in accordance with Rules 304.c.(17) and 1201.b.

St. Croix is committed to protecting the wildlife resources in this project area. The Horseshoe #1 is located on private, irrigated cropland surface. This location is within designated Greater Prairie Chicken Production Area High Priority Habitat as well as Pronghorn Winter Concentration High Priority Habitat. This plan will be in effect from approval until the location has undergone final reclamation or the permit has been abandoned. If substantial changes occur, St. Croix will initiate additional consultation with CPW and submit a sundry for the Form 2A with agreed-upon changes.

### *Consultation Process*

St. Croix reached out to Colorado Parks and Wildlife (CPW) on June 4, 2021, to begin the pre-application consultation regarding the Horseshoe OGD application. A CPW representative visited the area in July to assess the habitat. Emails, online video meetings, and phone calls were exchanged throughout June, July, August, September, and October to determine the best management practices and appropriate mitigation measures for this location.

During consultation, it was determined that while the location is within two High Priority Habitats, the potential impacts to Pronghorn Winter Concentration could be more significant due to the less likelihood of Greater Prairie Chickens occurring where the location is proposed. Some best management practices included in this plan emphasize protecting Pronghorn, as per the recommendation from CPW during a meeting on 10/7/2021.

| Correspondence Log |                     |                                  |
|--------------------|---------------------|----------------------------------|
| Date               | Correspondence Type | Discussion Summary               |
| June 4, 2021       | Email               | Initial request for consultation |
| June 8, 2021       | Email               | Scheduling for video meeting     |
| June 14, 2021      | Email               | Scheduling for video meeting     |
| June 18, 2021      | Email               | Scheduling for video meeting     |

|                    |               |   |
|--------------------|---------------|---|
| June 22, 2021      | Email         | Scheduling for video meeting                                |
| June 24, 2021      | Video Meeting | Discuss Horseshoe project                                   |
| June 25, 2021      | Email         | Meeting follow-up with project details                      |
| July 9, 2021       | Email         | Follow-up on CPW's site visit schedule                      |
| July 14, 2021      | Email         | Follow up on project details                                |
| July 26, 2021      | Phone Call    | Project details and buffer distances required               |
| July 27, 2021      | Email         | CPW follow-up on project status                             |
| August 10, 2021    | Email         | Schedule phone call   |
| August 10, 2021    | Phone Call    | Buffer distances  |
| August 11, 2021    | Email         | Clarification on Wildlife Mitigation Plan requirements      |
| September 16, 2021 | Email         | Clarification on Wildlife Mitigation Plan requirements      |
| September 29, 2021 | Email         | Final Acreage Disturbance Numbers                           |
| October 1, 2021    | Email         | Final Acreage Disturbance Numbers                           |
| October 7, 2021    | Video Meeting | Discuss Direct and Indirect Mitigation Measures             |
| October 7, 2021    | Email         | Follow-up with seed mixes                                   |
| October 11, 2021   | Phone Call    | Offsite mitigation project suggestions and Indirect Impacts |
| October 22, 2021   | Phone Call    | Confirming BMP language for Wildlife Mitigation Plan        |
| October 25, 2021   | Email         | Wildlife Mitigation Plan BMP language                       |

It is not located within Black Bear habitat.

St. Croix was limited in viable locations due to the size of the mineral lease and the engineering technology available for vertical well development; proposing alternative locations outside of the habitats was not an option. The nearest boundary of the Greater Prairie Chicken High Priority Habitat is approximately three quarters of a mile away; the boundary of the Pronghorn Winter Concentration Area is over 1.5 miles away from the currently proposed locations. The minerals cannot be accessed from locations outside of either High Priority Habitat boundary.

This location was chosen due to the low/moderate quality of the wildlife habitats and situated within the existing disturbance footprint of irrigated cropland. The location is within the established irrigation pivot; the cropland is irrigated with cow urine. Greater Prairie Chickens are known to avoid facilities that are within 700 meters of a road; all surface-disturbing activities proposed in this OGDG are less than 400 meters from the existing County Road. The production facilities for this OGDG are proposed to be located adjacent to the County Road to reduce habitat fragmentation and minimize the traffic impacts traveling further from the County Road. All wells proposed in this OGDG will utilize flowlines to transport all products to the facilities at the Production Facility

Location to minimize the traffic disruption of wellhead visits. This will keep the focus of long-term activities adjacent to the County Road. Therefore, an Alternative Location Analysis process per Rule 304.b.(2).B.viii was not conducted because this was not requested by CPW.

## 2) Location Background and Geographic Description

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The proposed location is on private surface, owned by Daisy Lane Farm, LLC, an agricultural dairy operation. The surface use agreement between Daisy Lane Farm and St. Croix does not include wildlife stipulations.

St. Croix proposes a vertical oil well to be drilled at this location. The formations in the area are not known to include a significant amount of natural gas.

**Table 1 – Proposed Disturbance**

|                        | Proposed Location Disturbance Acreage | Access Road Disturbance | Off-Location Flowline Disturbance | Total Proposed Acreage |
|------------------------|---------------------------------------|-------------------------|-----------------------------------|------------------------|
| Short-Term Disturbance | 5.828                                 | 0                       | 1.14                              | 6.97                   |
| Long-Term Disturbance  | 0.002                                 | 1.062                   | 0                                 | 1.064                  |
| Total                  | 5.83                                  | 1.062                   | 1.14                              | 8.034                  |

## 3) Development Activity

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| Phase               | Estimated Commencement       |
|---------------------|------------------------------|
| Construction        | Second or Third Quarter 2022 |
| Drilling            | Second or Third Quarter 2022 |
| Completion          | Third Quarter 2022           |
| Production          | Third Quarter 2022           |
| Interim Reclamation | Third Quarter 2022           |

Construction for this location is anticipated to take 7 days. Drilling, including Move-In Rig-Up and Rig-Down Move-Out, may take 11 days. Completions will be a clean-out process and plumbing the wellhead into the off-location flowline. This well will not be hydraulically fractured. Once the well is producing, it will undergo interim reclamation

## 4) Operating Requirements

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St. Croix's implementation of COGCC Rules 1202.a and 1202.b are listed below.

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| <b>1202.a.(1)</b>  | This location is not located in black bear habitat.  |
| <b>1202.a.(2)</b>  | There are no plans to withdraw or discharge into surface waters.   |
| <b>1202.a.(3)</b>  | St. Croix 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 as part of this project.  |
| <b>1202.a.(4)</b>  | St. Croix is not proposing to construct or utilize any type of pit with this project.  |
| <b>1202.a.(5)</b>  | During flowline construction, if St. Croix's operations warrant leaving trenches open for more than 5 consecutive days during construction of Pipelines regulated pursuant to the Commission's 1100 Series Rules, Operator will install wildlife escape ramps at a minimum of one ramp per 1/4 mile of trench.   |
| <b>1202.a.(6)</b>  | When conducting interim and final Reclamation for the location and access road pursuant to Rules 1003 and 1004, St. Croix will use seed mixes as per Surface Owner's approval and intended future usage of the location. When conducting Reclamation for the off-location flowline, St. Croix will use the CPW-recommended Pronghorn seed mix for Reclamation when consistent with the Surface Owner's approval and any local soil conservation district requirements.   |
| <b>1202.a.(7)</b>  | If St. Croix installs a fence on location, they will use CPW-recommended wildlife-friendly fence designs when consistent with the Surface Owner's approval and any Relevant Local Government requirements.   |
| <b>1202.a.(8)</b>  | St. Croix 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, Operator 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, Operator 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, Operator will provide work zone buffers around active nests. |
| <b>1202.a.(9)</b>  | St. Croix is not proposing to construct or utilize any type of pit with this project.  |
| <b>1202.a.(10)</b> | This oil and gas location is not located between 500 feet and 1000 feet hydraulically upgradient from a High Priority Habitat identified in Rule 1202.c.(1).Q-S.   |

|               |   |
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| <b>1202.b</b> | St. Croix is not proposing to construct any flowline or utility crossings of perennial streams identified as aquatic High Priority Habitat. |
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## 5) Mitigation Hierarchy

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During the consultation process, St. Croix has agreed to incorporate the below Best Management Practices to their planning and operational practices.

### A. Avoidance Measures

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| Greater Prairie Chicken: The operator agrees to preclude new oil and gas operations within 0.6-mile of any Greater prairie chicken lek (HPH/COGCC and BLM NSO).  |
| General: No harassment, hunting/poaching, or feeding of wildlife will be allowed on location.  |
| Inform and educate employees and contractors on wildlife conservation practices, including no harassment or feeding of wildlife.   |
| At this location, St. Croix 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.                  |
| This location will have no pits.   |
| 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.   |
| Operator will utilize a pit-less, closed loop system for drilling. Wells shall be drilled, completed, and operated using closed-loop pitless systems for containment and/or recycling of all drilling, completion, flowback and produced fluids. |
| Install exclusionary devices to prevent bird and other wildlife access to equipment stacks, vents, and openings.   |

### B. Minimization Measures

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| Greater Prairie Chicken: Will avoid Greater Prairie Chicken Timing Limitations as much as practicable (March 1-June 30)   |
| Greater Prairie Chicken: St. Croix and its contractors agree to restrict well site visitations to 2 times per day and to portions of the day between 9:00 a.m. and 4:00 p.m. during the lekking, nesting, and early brood-rearing seasons (March 1 to June 30) within 2.2 miles of a lek. |

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| Pronghorn: The operator agrees to preclude new oil and gas operations within CPW-identified pronghorn winter concentration areas from January 1 through April 30.   |
| General: Minimize the amount of traffic on lease roads within 2 hours of sunrise and sunset as much as possible during all phases.  |
| Migratory Birds: If St. Croix plans to conduct any vegetation removal necessary for construction during the nesting season for migratory birds (April 1 to August 31), a pre-construction nesting migratory bird survey will be conducted within the approved disturbance area. |

## C. Mitigation Measures

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|---|
| Greater Prairie Chicken: The operator agrees to install raptor perch deterrents on equipment, fences, cross-arms and pole tops in Greater Prairie Chicken Habitat.  |
| Greater Prairie Chicken: The operator agrees to replace any permanently impacted, disturbed, or altered Greater Prairie Chicken seasonal habitats by enhancing CPW-identified marginal sand sagebrush habitat or reclamation of altered or converted habitat within or immediately adjacent to mapped nesting or brood-rearing habitat.   |
| Greater Prairie Chicken: The operator agrees to preclude the use of aggressive non-native grasses or shrubs in Greater Prairie Chicken Habitat reclamation.   |
| Greater Prairie Chicken: The operator agrees to (unless specifically directed to by the landowner) not plant buffalo grass, blue grama and side-oats grama in greater prairie chicken habitat as they will eventually dominate the resulting stand and will not provide Greater Prairie Chicken Habitat.  |
| Pronghorn: The operator agrees to preclude new fence construction in pronghorn habitat, unless the operator agrees to use CPW-recommended pronghorn fence designs. The designs are found at CPW's website:<br><a href="http://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf">http://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf</a> |
| Pronghorn: The operator agrees to reclaim/restore pronghorn habitats with native shrubs, grasses and forbs identified by CPW that contribute to optimal pronghorn habitat and other wildlife appropriate to the ecological site.  |
| Pronghorn: The operator agrees to preclude the use of CPW-identified aggressive non-native grasses and shrubs in pronghorn habitat reclamation.   |
| Pronghorn: The operator agrees to use locally collected seed for reseedling when specified by CPW.  |

## D. Compensatory Mitigation

### a. Direct Impacts

St. Croix has consulted with CPW regarding its potential impacts from the proposed Horseshoe project. While diligently planning the locations to minimize impacts, some habitat will be directly impacted upon construction of the location and proposed offsite

facilities. In accordance with 1203.a, St. Croix has agreed to provide the Direct Impact Habitat Compensatory Mitigation fee of \$13,570 as per Table 1203-1.

### **b. Indirect Impacts**

This is the first location proposed for this project. During the consultation period with CPW, the agency determined that this location would not be subject to Compensatory Mitigation for Unavoidable Adverse Indirect Impacts of Habitat Fragmentation.

## **6) References**

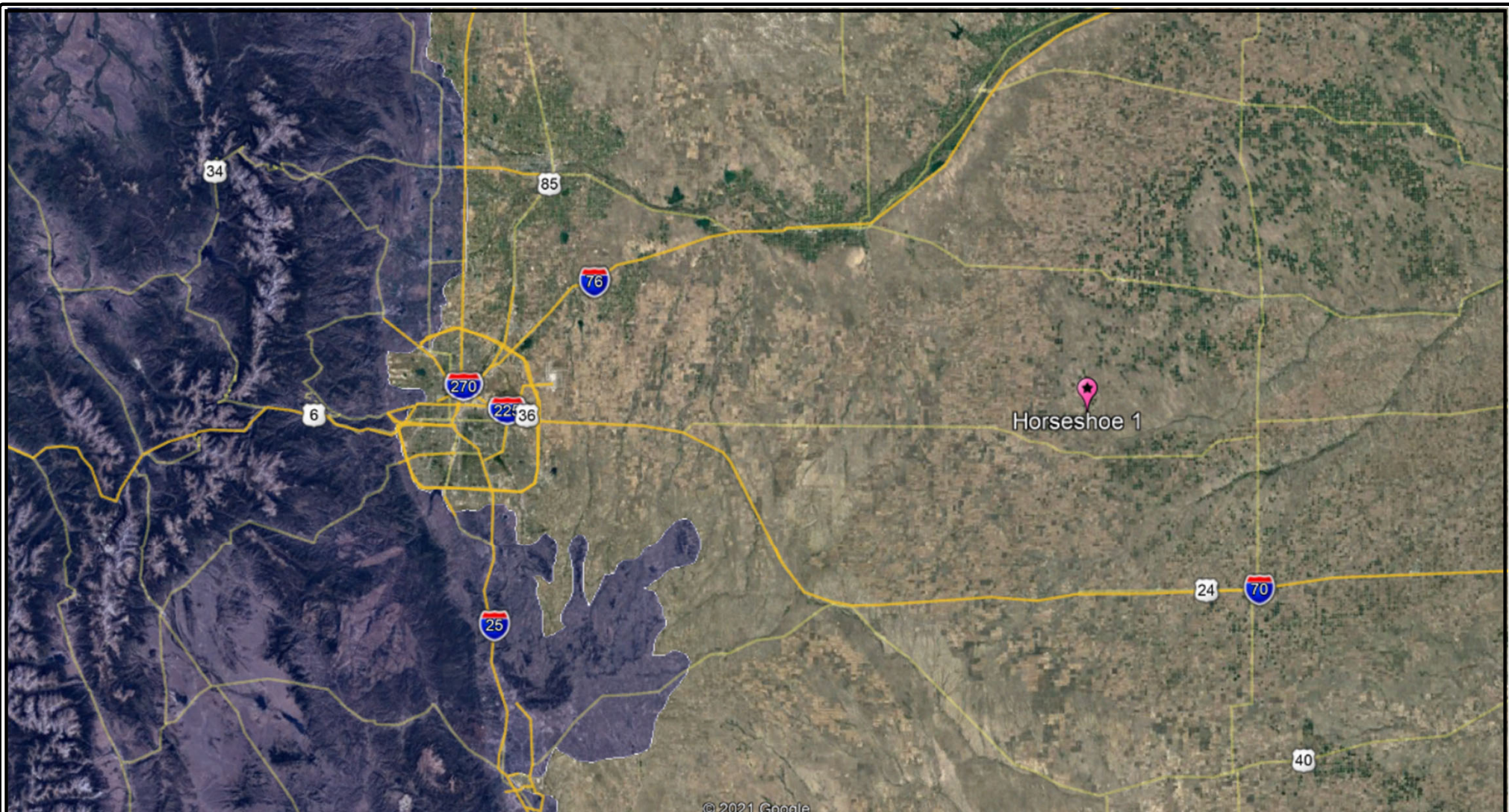
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Colorado Oil and Gas Conservation Commission. 2021. Permitting Process 300 Series. Colorado Department of Natural Resources.

Colorado Oil and Gas Conservation Commission. 2021. Protection of Wildlife Resources 1200 Series. Colorado Department of Natural Resources.

Colorado Department of Natural Resources. Colorado Parks and Wildlife. 2021.





Horseshoe #1  
St. Croix Operating, Inc.  
NENE S27 T3S R49W  
Black Bear Habitat Map

Legend



Black Bear Habitat










Prepared By:  
Ardor Environmental LLC

October 8, 2021

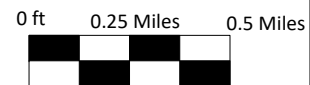




# Legend

-  1 Mile Radius
-  Oil and Gas Location
-  Working Pad Surface
-  Proposed Access Road and Off-Location Flowline
-  Pronghorn Winter Concentration Area
-  Greater Prairie Chicken Production Area
-  Greater Prairie Chicken Lek

Horseshoe #1  
St. Croix Operating, Inc.  
NENE S27 T3S R49W  
Wildlife Habitat Drawing



Prepared By:  
Ardor Environmental LLC

January 4, 2022