
8.0 RULE 6.4.8: EXHIBIT H-WILDLIFE INFORMATION

8.1 NARRATIVE

The Permit Boundary is 42.93 acres and the Affected area occupies 42.60, or 99% of the Permit Boundary. See **Figure 3-4**. The property surrounded by the Leadville Sanitation polishing pond on the East, which is fenced, residential houses (on land zoned as Forestry Agriculture) to the West, and US Highway 24 to the South. As a result:

- There is no significant wildlife on the property,
- Limited deer and occasional elk migration, and
- De minimis effect on habitat and food supply.

The Mill and surrounding properties are all privately or municipally-owned. There is no specific seasonal use in the area.

No endangered species have been observed on the site. This has been confirmed by **Colorado Parks and Wildlife (CPW)**.

Due to the Mill's surrounding neighbors and lack of vegetation, wildlife habitat and food supply is minimal and will not be disturbed during and after the proposed operation.

8.2 CPW RECOMMENDATIONS

CPW was contacted to determine effective mitigations for wildlife protection. CPW recommendations and the action plan to address the recommendations are as follows. Correspondence is provided in **Appendix 8-1**.

8.2.1 *PIT FENCING-BIG GAME EXCLUSIONARY FENCE*

CJK has identified and proposes to install a game fence around the ECS and FTD collection Pond with the following specifications.

- An 8-ft high fence will be installed around the Emergency Containment Sump (ECS). The fence will be installed approximately 2-3-ft downslope from the top or the embankment. The embankment has a 2.5H:1L slope. Placing the

fence downslope will effectively increase the effective height a mammal would have to jump to clear the fence. The fence will touch the ground.

- Fencing, posts, corner posts, and all hardware will be sourced from the fence manufacturer, and will be installed as specified (specifications include spacing between post. Posts will be mounted on the embankment in a manner that will not affect the structural integrity of the ECS embankment. Typical fence specifications include the following, but may vary according to the manufacturer's engineered requirements:
 - Type: Fixed Knot
 - Material: High Tensile Steel Wire
 - Height: 96-inch
 - Vertical Wire Spacing: 12-inch
 - Life Expectancy: 20-40 Years
 - Mesh Dimensions: 20 horizontal stays, 96"H, 12" between vertical stays
 - Inside Roll Diameter: 6"
 - Roll Diameter: 15"
 - Color: Zinc-Aluminum Coated
 - Galvanization: Class 3
 - Corner assembly specifications include:
 - 3 - 12' x 3" SS20 Brace Posts
 - 2 - 6' x 3" SS20 Pusher Posts
 - 4 - 12' x 2" SS20 Pushers
 - 2 - 10' x 2" SS20 Cross Member
 - 12 - 2" Pressed Steel Rail Ends
 - 12 - 3" x 1" x 1/8" Brace Bands
 - 12 - 12 - 1 1/2" x 3/4" Carriage Bolts
 - 5 - 3" Pressed Steel Dome Caps
 - Colored ribbon will be placed on fence to enhance visibility

8.2.2 BIRD BALLS

The ECS will normally only contain fresh water, however in the event of a containment breach, process reagents will report to the ECS and remain there until the solution can be detoxified and pumped out. Reagents, such as cyanide, are potentially harmful to wildlife, migratory birds, and bats. Therefore, bird balls will be placed in the ECS to prevent any birds or bats from coming into contact with the effluent.

The total volume of all solutions in the process plant is about 230,000 gallons, or 0.7 acre-feet. The ECS will, at all times contain enough bird balls to contain 1.7 acre-feet (540,000 gallons) of effluent, representing a surface areas of approximately 0.5 acres (22,000ft²).

8.2.3 REPORT DEAD ANIMALS

All dead animals discovered within the Permit Boundary will be reported immediately upon discovery. This includes animals found on or near the Mill access road from US

Highway 24, as well as on the entire Arkansas Valley Slag (AVS) Property which is adjacent to the Leadville Mill Property.

8.2.4 *MILL BORDER FENCE*

CPW states that the best wildlife solution is to not have a fence around the Mill property. However, the current **Conditional Use Permit (CUP)** requires a game-friendly fence around the property. It is proposed to Lake County **Community Planning Department (CPD)** that the existing fence be removed, except for the West Permit Boundary between the Mill and local residences. This request can only be approved by the Lake County Commissioners during the CUP update process that follows this permit application.

APPENDIX 8-1

COLORADO DIVISION OF PARKS AND WILDLIFE CONSULTATION



COLORADO

Parks and Wildlife

Department of Natural Resources

Southeast Region
4255 Sinton Road
Colorado Springs, 80907
P 719.227.5200 | F 719.227.5264

December 6, 2023,

Lucas West- Environmental Protection Specialist
Division of Reclamation, Mining, and Safety
1313 Sherman Street, Room 215
Denver, CO 80216

RE: Leadville Mill - M1990-057, Union Milling Company, LLC Response to Colorado Parks and Wildlife (CPW) Comments/Recommendations, April 10, 2023)

Dear Nick Michael,

Colorado Parks and Wildlife (CPW) has received the Union Milling Company's response to CPW's initial comment letter (April 10, 2023) for the Leadville Mine- M1990-057 in Lake County, Colorado. CPW staff had a site visit with CJK Milling Company on October 13, 2023. CPW appreciates the conversations had during the site visit and that the pit will have the recommended exclusionary fence around it. CPW has the following recommendations based on Union Milling Company, LLC response letter.

CPW acknowledges the discussion held on October 13, 2023 about how the pit originally planned as a leach pit is now going to be an Emergency Containment Sump (ECS). The ECS will normally only contain fresh water, but in the event of a containment breach of the cyanide tanks, the pit will hold any cyanide that is breached until it can be pumped out. Exposed chemicals from mining operations, such as cyanide, are potentially harmful to wildlife, migratory birds, and bats. As recommended in the initial letter, CPW recommends the use of bird balls or netting to prevent any birds or bats from coming into contact with the water due to the risk of contamination of cyanide if a catastrophic event was to occur with the cyanide holding tanks. Please see the following criteria for netting and use of bird balls.

Bird Balls:

Bird balls should be onsite and available to deploy in the case of open pits that have liquid.

- a. enough bird balls to completely cover the surface of the liquid.



Netting:

Pit netting shall be built in such a way as to exclude birds and bats from entering the pit or contacting the contents. Pit netting shall meet the following criteria:

- a. Nets shall be supported by a steel frame and cable to prevent sagging and net contact with pit contents.
 - i. Steel Frame. Support posts shall be three-inch steel tubing that will be set at a maximum of 7 feet apart. Support posts shall be buried a minimum of 7 feet in depth and set in concrete. Top rail to connect the posts shall also be three-inch steel tubing.
 - ii. Cable. High tensile strength cable shall be strung across the steel frame at 7-foot intervals along both the y-axis and the x-axis to form a grid of 7-foot squares. The netting shall be draped over this cable grid. Additional cables shall be strung over the net at 7-foot intervals to prevent the wind from whipping the net back and forth.
- b. The netting shall be wide and long enough to drape down the sides of the frame all the way to the ground on all sides. A bottom perimeter cable shall be strung along the bottom of the posts, attaching to the net and securing it to the ground to prevent entry by birds or wildlife.
- c. Nets shall be installed 4 to 5 feet above the pit surface to allow for slight sagging. Nets at this height that dip into the pit contents with a heavy snow load shall need to be installed higher than 5 feet above the pit surface.
- d. Mesh shall have a maximum mesh size of 1 1/2 inches to exclude most birds and also accommodate snow-loading.
- e. Netting, cables and frame shall be inspected after heavy snow-loads or other damage, and repaired promptly to eliminate holes in the netting, to re-stretch sagging nets, or to tighten and secure cables.
- f. Deterrents are not an acceptable exclusion system. The following exclusion devices are not CPW approved and shall not be used in place of proper pit netting: flagging, reflectors, strobe lights, decoys, and zone guns/propane cannons.

g. Pit covers may be considered by CPW as an acceptable exclusion system dependent on the design and size of the pit.

Colorado Parks and Wildlife appreciates the opportunity to review and comment on this project. Please feel free to contact, Land Use Coordinator, Cassidy English, should you have any questions or require additional information at 719-828-4877, or via email at cassidy.english@state.co.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean Shepherd". The signature is fluid and cursive, with the first name "Sean" and last name "Shepherd" clearly distinguishable.

Sean Shepherd
Area 13 Wildlife Manager

CC: Regional Files
Area 13 Files