



# COLORADO

## Parks and Wildlife

Department of Natural Resources

Salida Service Center  
7405 W Highway 50, Suite 100  
Salida, CO 81201  
P 719.530.5520

April 10, 2023

To: Lucas J West.  
1313 Sherman St. Room 215 Denver, CO 80203

RE:

Leadville Mill - File No. M-1990-057, Union Milling Company, LLC  
Permit Conversion Application (CN-2)  
Conversion to 112(d)

Colorado Parks and Wildlife Comments/Recommendations:  
All facilities and open-air pits/vaults, etc... should have the following

### **FENCING AND NETTING REQUIREMENTS**

1. **Pit Fencing** shall consist of, at a minimum, each of the following:

a. **Big Game Exclusionary Fence.** A fence surrounding the entire pit to prohibit big game from entering the pit or contacting the pit contents. Fence shall meet the following criteria:

i. Fence shall be a minimum of eight (8) feet high to prevent large mammals from jumping it, and will touch the ground to prevent animals from passing under it.

ii. Fence materials shall be strong enough to withstand large mammals or livestock pushing on the fence.

iii. Fence support structures shall be placed at appropriate intervals of 16 feet or less and sufficiently anchored into the ground, buried at 2.5 feet deep or greater, to prevent the fence from sagging or wavering.

iv. Openings in fence material shall be less than four inches to prevent big game, including young, from passing through or under the fence.

v. Materials shall minimize the potential for wildlife to become entangled in or impaled on the fence.

vi. Fence shall be highly visible to mammals and birds to minimize collisions and entanglement.



vii. Acceptable fence materials include: chain link, small mesh woven wire (<4 inch openings), and wood panels.

viii. Prohibited fence materials include: barbed wire, smooth wire, loose wire, coiled wire, sheep panels, and mesh or woven wire with openings greater than 4 inches.

**b. Buried Exclusionary Fence.** A buried mesh fence(s) to prevent small animals from entering or contacting the pit. Fence shall meet the following criteria:

i. Mesh size shall be no greater than ¼-inch, to prevent small mammals from passing through the fence. ¼-inch hardware cloth is recommended.

ii. Fence shall be buried one foot below grade to prevent animals from digging under the fence, and extend at least two feet above grade level and shall overlap with the bottom portion of the 8-ft exclusionary fence.

**2. 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 ½ 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 zon guns/propane cannons.

g. HDPE balls (bird balls) or pit covers may be considered by CPW as an acceptable exclusion system dependent on the design and size of the pit.

3. **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.

## REFERENCES

Colorado Parks & Wildlife.

<https://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf>

US Fish & Wildlife Service. <https://www.fws.gov/mountain-prairie/contaminants/oilPits.php>

Sincerely,

A handwritten signature in black ink, appearing to read 'ZB' followed by a horizontal line.

Zachary Baker  
Assistant Area Wildlife Manager