

8/26/2022

TO: Bradford Janes, Office of Special Projects
Raptor Materials
Colorado

FROM: Ronald Beane, Senior Wildlife Biologist

RE: Two Rivers Sand, Gravel and Reservoir Project, Weld County, CO.

ERO Resources Corporation is providing this Technical Memorandum to respond to the comments from Colorado Parks and Wildlife (CPW), dated June 13, 2022.

CPW identified several concerns and issues pertaining to wildlife impacts from the proposed Two Rivers Sand, Gravel and Reservoir Project. ERO has reviewed the mine plan and application and believes that many of these concerns and issues were previously addressed in the mine application. This memo provides ERO's response to the issues raised by CPW and provides additional clarification to specific concerns as needed.

Issue - Prairie Dogs.

ERO Response: The current land use on the project area is primarily irrigated cropland, upland pasture along 54th Street and degraded mixed mesic grassland between the Evans canal and the Big Thompson River. Most of the project area and all areas of proposed mining areas do not currently contain prairie dogs. Prairie dogs only occur on upland pasture north of the Evans canal. This area will be used for aggregate storage and processing. Site development will involve vegetation clearing and soil preparation techniques that are similar to farming activities. These activities will likely disperse the prairie dogs to surrounding areas. Active prairie dog management will be implemented as needed following the approach described below.

ERO understands that Raptor Materials (Operator) will implement a voluntary prairie dog management approach that may include avoidance, passive dispersal, and/or humane lethal control. The selection of any single or combination of these techniques will be prioritized based on site-specific conditions and regulations, and the likelihood of success. ERO supports this approach as a humane and practical solution to address human-prairie dog conflicts. Because mining would be incremental in scale over decades during the life of the project, avoidance will be the first option for most of the project area. Prairie dogs will be allowed to remain in areas not being actively mined. If impacts on prairie dogs cannot reasonably be avoided, one (or a combination) of the alternatives described above will be implemented. Any management

option selected to address prairie dogs will be conducted in a manner that is compliant with local, state, and federal regulations.

Issue - Mule Deer (severe winter range and migration corridors). “The applicant should discuss the following (related to Rule 3.1.8): How will the operation minimize impacts on mule deer habitat during the winter season (December 1 through April 30). This should include (but not be limited to) a discussion on fencing. Fencing should be limited as practical, and wildlife-friendly fencing should be used.

ERO Response: Aggregate mining in general is a slow, steady progression of mining within active cells, generally 8 to 16 acres in size, then incrementally moving onto the next cell and concurrently reclaiming the previous cell. This incremental approach will retain open areas and opportunities for wildlife movement and foraging within unmined areas during the life of the mine. Even when mining is completed and the cells transitioned to water storage, there will be ample room remaining within the existing riparian and riverine areas along the Big Thompson and South Platte Rivers. Deer and other wildlife will be able to freely migrate, forage, breed and complete all life requirements along these two broad migration paths. These two river drainages will be undisturbed and remain open to maintain suitable habitat year-round, including severe winter weather, and provide movement corridors both on the north and south of the mine areas. Even at the end of the life of the mine and the transition to water storage reservoirs, wildlife/deer will have access to a wide riparian corridor along the South Platte River (minimum width of 1,968 feet and average width of 2,560 feet) (Figure 1). These corridors will continue to support mule deer and during all seasons and provide habitat for all wildlife.

Issue – Fencing

ERO Response: ERO feels there is no need to fragment wildlife habitat with unnecessary fencing. Existing fencing at the project site consists of wildlife-friendly, 3-strand barbed wire. ERO understands that the Operator will remove all unnecessary fencing that currently exists at the site. ERO will assist the Operator to identify existing unnecessary fencing, as well as fences that benefit wildlife (e.g., fencing along 54th Street that may provide a physical/psychological obstacle to wildlife traversing dangerous roadways).

Deer populations commonly traverse active resource conservations projects like these. Deer and other wildlife are commonly seen at other Colorado mining operations by truck and haul operators as they browse the vegetation at the bottom of more fully extracted basins.

Issue - Escape Ramps.

ERO Response: Mining will normally be conducted during daylight hours when wildlife is the least active. As described above, aggregate mining in general is a slow, steady progression of mining within active cells that are generally 8 to 16 acres in size, affording wildlife the ability to avoid conflicts over the majority of the project area. There will be no vertical walls created by mining and each cell will also have multiple ingress and egress roads at moderate slopes for

equipment. These roads will allow ample opportunity for wildlife to escape, particularly during wildlife active periods when no mining will occur. The operator has no record or evidence of trapped deer in a basin or cell at any of its aggregate operations in Colorado.

Issue - Aquatic Species

ERO Response: The mine will substantially occur on agricultural land that is already a source of human disturbance within 500-feet of streams and other aquatic resources. The mine will comply with all regulations, standards, and policies of the Colorado Mined Land Reclamation Board for the protection of aquatic resources, including establishing a minimum 100-foot buffer between planned disturbance and the bankfull river/riparian corridor. Furthermore, Raptor Materials has provided a full set of stormwater BMPs and reclamation plan in the mine site application that are designed to protect aquatic resources.

Issue – Reclamation of Disturbed Lands

ERO Response: The reclamation plan adopts a philosophy that will restore terrestrial and aquatic ecological functions that will match, or more likely exceed existing conditions. This plan focuses on vegetation community height, form, function and diversity that will benefit a full suite of aquatic and terrestrial wildlife, from soil microfauna to native insects, birds, rodents and large mammals. The reclamation plan incorporates noxious weed management as a tool to achieve the objectives described above.

Issue – Water Storage Ponds

Response: While islands are not compatible with lined water storage reservoirs, reservoirs will be designed to take advantage of the natural curvature of the landscape. Reservoirs will have variable slopes to the extent practicable to provide aquatic habitat while maintaining efficient water storage. Successful reclamation and creative reservoir design will provide a permanent natural buffer between the existing riparian corridors and ever increasing residential development in Weld County.

Issue – Wildlife Protection Recommendations.

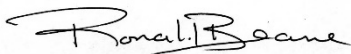
Response: The majority of the Best Management Practices (BMPs), Voluntary Conservation Measures and Recommendations described in the ERO 2022 report will be implemented. These measures include:

- Work areas will be stabilized in a manner to prevent or minimize soil erosion.
- The operator will protect the surrounding area and, from siltation. The Contractor will utilize well-established NRCS storm water and erosion management measures to control erosion, as necessary.
- All temporarily disturbed areas will be reseeded with native seed mix as specified in the mine plan. The mine plan states that the “Primary Revegetation Seed Mixture

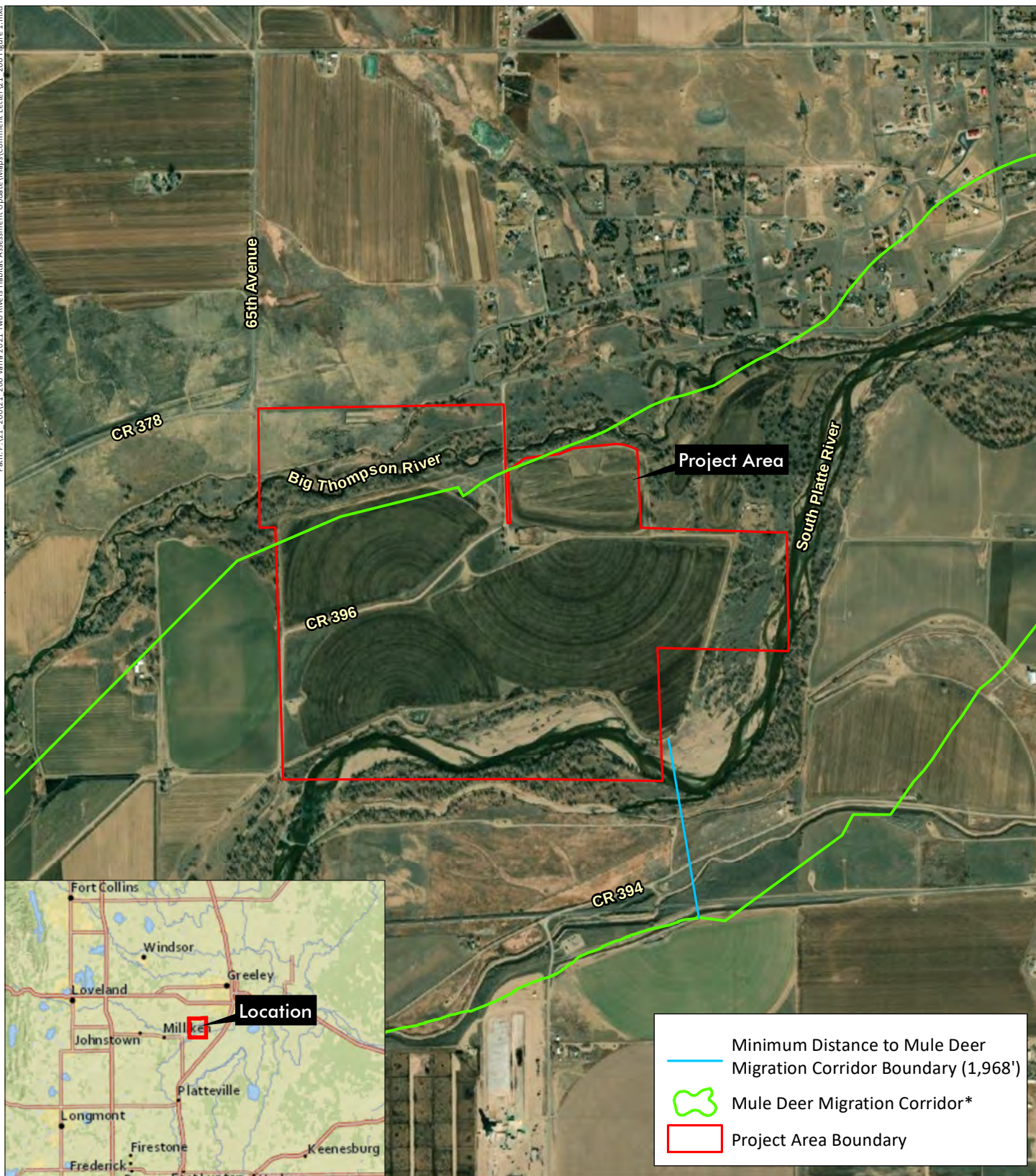
combines a thoughtful mingling of predominantly native grasses of diverse height, form, color and function, to add cover, food source for wildlife and pollinators.”

- The project will implement mine-site reclamation consisting of reseeding with native grasses and pollen producing species.
- The cottonwoods along the lower terrace of the two rivers will be preserved.
- All riverine areas will otherwise remain untouched.
- All mining areas, access routes, staging areas, and work areas will all be outside riparian areas and in previously disturbed or modified cropland and nonhabitat areas.
- The project will avoid fragmenting linear riparian corridors.
- The project will avoid disturbing (e.g., crushing or trampling) or removing (e.g., cutting or clearing) all vegetation, such as willows, trees, shrubs, and grasses in riparian areas. A few tall trees and shrubs may be trimmed to provide a corridor for conveyors.
- Impacts to all riparian habitat consisting of shrubs, grasses, and forbs will be avoided or minimized to maintain current vegetation communities and allow for habitat connectivity to habitat upstream and downstream.
- Mining areas will predominantly occur with existing areas of human disturbance such as agricultural cropland, grazed pastures and roads.
- 100-foot buffers will be established between planned disturbance and the bankfull river/riparian corridor.
- Traffic will be limited to existing roads and bridges.
- Noise and dust levels for the project are regulated under the Colorado Department of Public Health and Environment. These measures are sufficient to reduce and minimize noise and dust impacts to wildlife.

As always, ERO is open to additional communication with CPW to work through any outstanding issues, if circumstances are warranted



Ronald Beane, Senior Wildlife Biologist



Varra Companies - Endangered Species Reevaluation

Sections 33 and 34, T5N, R66W; Sections 3 and 4, T4N, R66W; 6th PM

UTM NAD 83: Zone 13N; 519043mE, 4466286mN

Longitude 104.775771°W, Latitude 40.346911°N

USGS Milliken, CO Quadrangle

Weld County, Colorado

Figure 1 Vicinity Map

* Data Source: Colorado Parks and Wildlife

Prepared for: Varra Companies, Inc.
File: 21_266 Figure 1.mxd (GS)
August 23, 2022

ERO
ERO Resources Corp.

