

INFORMATION REQUIRED BY COGCC OPERATOR GUIDANCE REGARDING RULE 1001.c: RECLAMATION VARIANCES AND WAIVERS (DECEMBER 17, 2015)

Pond B and Access Road

A. Site History and Description

Pond B (Facility Name POND B /, Facility Number 285604) was constructed as a fenced, multi-well production pond in the Spring Canyon drainage in 2006. RRRH conducted a sensitive area determination of the pond location prior to construction and concluded that the pond was not in a sensitive area. As a result, Pond B was constructed without a liner. Pond B was operated under COGCC Centralized E&P Waste Management Facility Permit #292832. The pond and access road are located in the southeast part of Red River Ranch as shown on the attached map of Red River Ranch CBM facilities. Also attached is an aerial photograph of the site (2013 imagery).

Ponded water dimensions were approximately 250' x 70' (0.40 acres) x 3'. The reserved topsoil was spread over the pond bottom. Aquatic and emergent wetland plants were planted in and adjacent to the pond center, allowing the pond to also function as a constructed wetland.

Access is provided by a single 610'-long access road that enters the pond area at its northeast corner. The access road was 15' wide when constructed.

In addition to ephemeral flows of surface water derived from upslope runoff, the pond received produced water from nearby CBM wells. The Raton-Vermejo-Trinidad aquifer in which the CBM wells were set produces water that is generally considered potable. The quality of water in the pond was sufficiently high that CDPHE permitted direct discharge of water from the pond into Spring Canyon under Permit CO-0048089. The CBM system was shut down by March 31, 2012, and the pond did not receive any CBM produced water after that date.

COGCC inspected the Centralized E&P Waste Management Facility, of which this pond is a part, on May 22, 2013 and May 28, 2015. No problems related to reclamation or stormwater were identified in the May 22, 2013 inspection report. The May 28, 2015 inspection report noted the presence of some noxious weeds.

Analyses of pond bottom soil samples collected in September 2014 indicate that the applicable COGCC Table 910-1 contaminants of concern are present in concentrations below the Table 910-1 limits, are below background concentrations established through analysis of nearby soils, or are at normal levels based on the local soil survey.

A Form 27 was submitted to COGCC on October 27, 2014, that provided the soil analytical data and communicated RRRH's desire to leave the pond as it currently existed for the benefit of wildlife and native vegetation. COGCC conditionally approved the Form 27 on November 5, 2014, requiring RRRH to notify COGCC when RRRH's variance request regarding final land contours is granted by the Director. Although RRRH planned to leave the fence in place, it has since been removed.

B. Final Reclamation and Requested Variances

As discussed in Section C, below, RRRH has completed most of the reclamation activities required by COGCC Rule 1004. However, RRRH intends to retain certain assets at this location that have continuing utility to ranch operations. The following assets will not be reclaimed or removed:

- Pond – The pond holds a small amount of water and will be retained in its current condition for the benefit of wildlife and native vegetation.
- Access Road - The access road will be retained in its current condition for use as a prescribed burn fire break, game retrieval, staging of hunters, and temporary parking of ranch trucks and other equipment.
- Water Gathering System - The water gathering system that was used to pipe water from wells to the pond can be used to pipe water from sources to locations where it could be used for firefighting, wildlife water supply, irrigation, and other water uses.

Closure of this location in its current condition will require variances from parts of COGCC Rule 1004.a in the following regards:

- The pond will not be backfilled or graded back to its original topographic contours so that the site can continue to function as a pond. The outlet structure will be retained so that RRRH can regulate water levels in the pond if needed.
- The access road will not be ripped to avoid disturbance of existing vegetation.
- The gravel that remains on the access road will be left in place to facilitate its planned use for game retrieval, staging of hunters, and temporary parking of ranch trucks and other equipment.
- The vegetative cover that has been established around the pond and on the access road may not reflect pre-disturbance forbs, shrubs, and grasses and may be less than 80 percent of pre-disturbance levels in some parts of the location.

C. Additional Information Required by COGCC Operator Guidance on Rule 1001.c

COGCC Operator Guidance on Rule 1001.c: Reclamation Variances and Waivers (revised December 17, 2015) requires submission of information needed to support COGCC's evaluation of whether public health, safety, and welfare will be protected and significant adverse environmental impacts prevented if variances from specified reclamation rules are granted. That information is presented below.

Operator Guidance Requirement 1. Evidence that all wells on the location are plugged and abandoned, and that a Form 6 subsequent was submitted for each well.

No wells were drilled at the Pond B location.

Operator Guidance Requirement 2. Evidence that all oil and gas equipment has been removed from the location, including flowline risers and gathering line risers.

Because no wells were drilled at the Pond B location, there was no oil and gas equipment to be removed as evidenced by the two photographs that are submitted along with this document as a COGCC Form 4 attachment.

Operator Guidance Requirement 3. Evidence that trash and debris belonging to the operator or its agents has been removed from the location.

All trash and debris belonging to RRRH and its agents have been removed from this location with the exception of some gravel which remains on the access road and will be left in place to facilitate their planned use for game retrieval, staging of hunters, and temporary parking of ranch trucks and other equipment. This is evidenced by the two photographs that are submitted along with this document as a COGCC Form 4 attachment.

Operator Guidance Requirement 4. Evidence that noxious weeds have been controlled as required by Rule 1004.

Noxious weeds at this location are monitored and controlled in accordance with RRRH's ongoing weed management program that includes spraying by a licensed contractor and by licensed staff, as well as mechanical treatment by RRRH staff. Any noxious weeds identified on or adjacent to this location are sprayed and/or mechanically removed.

Operator Guidance Requirement 5. Documentation showing the operator consulted in good faith with the surface owner regarding final reclamation pursuant to Rule 306.f. Information describing the consultation (who, where, when) should be provided.

As both the operator at and the surface owner of this location, RRRH has carefully considered all aspects of final reclamation (including the timing of reclamation activities, the desired final land use and seed mix), as required by COGCC Rule 306.f, in development of its reclamation plan for this location. The results of the 306.f final reclamation consultation were incorporated in RRRH's Final Reclamation Plan, dated October 21, 2015. That Final Reclamation Plan was submitted to COGCC on October 23, 2015.

Operator Guidance Requirement 6. Documentation of the existing state of reclamation for the entire location.

Subsequent to construction of Pond B, RRRH undertook interim reclamation measures that included cleanup of the location and revegetation of disturbed areas that were no longer needed. The access road was reduced to a two-track road, and the perimeter fence was removed.

All debris, rubbish, supplies, and waste materials, other than gravel, have been removed. No materials were burned or buried on the site.

Reclamation progress is currently being and will continue to be monitored concurrently with stormwater inspections conducted by a RRRH contractor. Any required corrective measures will be implemented.

Operator Guidance Requirement 7. Documentation detailing how the oil and gas location will be stabilized and details about what required stormwater management controls will be in place prior to COGCC's final signoff reclamation inspection.

The site is currently well-stabilized with vegetation, and the dam faces are free of gullies. No structural controls are required to prevent erosion and sedimentation.

This location is currently being and will continue to be inspected under RRRH's ongoing stormwater management program, conducted in accordance with the requirements of COGCC Rule 1002.f until COGCC approves final reclamation.

Operator Guidance Requirement 8. The operator's analysis of how public health, safety, and welfare will be protected and significant adverse environmental impacts prevented even if compliance with the specified provisions of Rule 1104 receive a variance.

RRRH believes that granting the requested surface owner variances will not compromise public health, safety, and welfare and will not result in significant adverse environmental impacts. The following information is presented in support of COGCC's evaluation.

1) The specific nature of the location, including urban vs. rural, proximity to surface water, wildlife areas, 317B area, or sensitive area classification – This location is in a remote, rural part of the ranch, 5.9 miles from the nearest known residence (the ranch residence). It is 1,882 feet south-southeast of the nearest named surface water body (Spring Canyon, an ephemeral stream), which appears to also be the nearest sensitive area. There are no nearby 317B areas.

The nearest state wildlife area is 2.6 miles north-northeast of the location. The location is not in a sensitive wildlife habitat or a restricted surface occupancy area. It is in black bear habitat, but there is no food-related trash on the location.

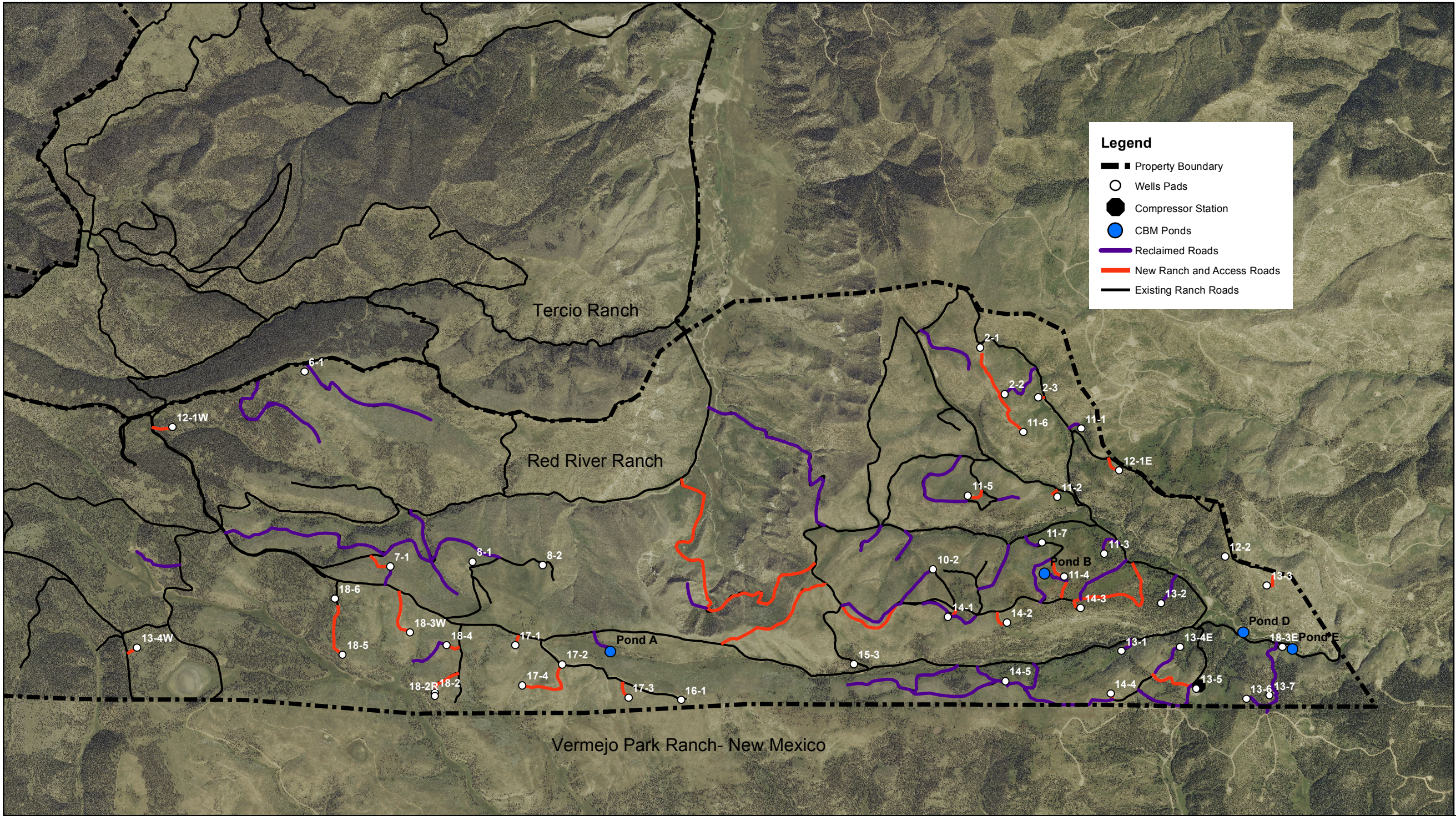
Vegetation in the vicinity of the pond is predominantly montane grassland with scattered ponderosa pine to the east. The pond edge is vegetated with emergent wetland plants, primarily softstem bulrush. Soils on which the pond was constructed have been mapped as Fuera-Dargol-Vamer complex, 10 to 45 percent slopes.

2) Comparative Benefits of Recontouring and Reseeding vs. Just Reseeding – Recontouring of the pond would eliminate the pond's ability to retain water, support riparian and wetland vegetation, and serve as a source of water for wildlife. Recontouring of the land surrounding the pond is not necessary, as its topography has not been disturbed.

RRRH believes that the reseeded work that has taken place to date has produced a vegetative cover that is more than adequate to stabilize the location and, within a reasonable period of time, create a vegetative cover comparable in composition and density to adjacent undisturbed areas.

Consultant Assessment - RRRH has engaged an environmental consultant to implement its stormwater management program and to provide periodic inspections of this and other locations. These inspections evaluate potential pollutant sources, erosion control, sediment control, runoff

conveyance and control, and maintenance of structural and revegetated areas. The consultant has prepared a report (dated September 13, 2014) which concluded that there are no conditions at this location that might adversely impact public health safety or welfare, nor any conditions at this location which might result in significant adverse environmental impacts. The consultant's report was provided to COGCC on October 9, 2014, and the conclusions of the consultant's report were included in the RRRH Final Reclamation Plan submitted to COGCC on October 23, 2015. The RRRH natural resource management staff has also concluded that wildlife resources are not being adversely impacted by this location in its current condition.



Red River Ranch CBM Facilities

Updated: July 25, 2016

Pond Variance Area (0.83 acres)

Access Road Variance Area (0.16 acres)

Pond (1.14 acres)

Pond B

Boundaries are approximate and based on information available to the preparer.



Photograph 1. Pond B, facing northwest from southeast side of pond.



Photograph 2. Pond B, facing west across dam face from northeast corner of dam.