# Weed Management Plan for Miller Federal 2

# API #05-067-08393

The Miller Federal 2 well site has dense populations of musk thistle and Canada thistle in the reclaimed areas on the entirety of the reclamation area and containment berms. The weed populations are currently contained to the reclaimed area, but do have the potential to spread to other areas. Also, there is a population of prairie dogs on this site which will keep some grasses short along the containment berm. This site was treated two times in 2020. Once on April 9th and again on September 16th. During the April 9th treatment seeding of the north containment berm was done as well. During both herbicide treatments the entirety of the site was traversed and treated. Grass vegetation was noted during the September 16th and can be seen in the photos below. Photos below for each treatment document that an application was completed, and that seeding was completed on the containment berm to promote growth in some of the bare areas. These treatments were conducted as part of the annual weed spray program and in response to COGCC inspection reference #20200918-18155475310. The treatment plan going forward that is proposed for this site is as follows:

- Remove weed debris followed with a selective herbicide application- May 2021
- Re-visit/re-treat the site in June 2021 to treat any rosettes that have germinated.
- Re-visit/re-treat the site in late July/early August 2021 to treat any rosettes that have germinated.
- Broadcast seed and harrow in late fall 2021 with a mix comparable to the mix used when these areas were reclaimed. Hydromulching of the containment berm is recommended to prevent erosion and to help establish vegetation if, after monitoring, seeding needs to be done. A proposed seed mix is attached.
- Treat the reclaimed areas in the spring of 2022 and continue to monitor/treat during routine selective weed spraying activities.

The intention for holding off the seeding to a fall timeframe is to monitor the current native vegetation populations to see how well they respond to reduced pressure from noxious weeds. Multiple weed treatments should reduce the noxious weeds and allow the native vegetation to fill in.

The current site conditions are snow covered in some areas, dormant grasses throughout the reclamation area, and standing water on the pad. Photos below are from the site visit on Monday March 15, 2021.

March 15, 2020 Site evaluation photos:


Photo 1: Location sign

Photo 2: On top of containment berm

Photo 3: View of reclamation area

Photo 4: View of access road

Photo 5: Containment berm and pad view

April 9, 2020 Application photos:

Photo 1: Sign and overview

Photo 2: Berm grasses

Photo 3: Treatment of thistle rosettes

Photo 4: Treatment of Canada thistle on berm

Photo 5: Seeding of berm

Photo 6: Overview of berm.

September 16, 2020 Application Photos:

Photo 1: Location sign and treatment

Photo 2: Treatment of musk thistle rosettes

Photo 3: Treated Canada thistle

Photo 4: Upper berm vegetation

Photo 5: Treated thistle

Photo 6: Treated thistle and view of vegetation

Photo 7: View of containment berm

A dryland mix containing similar species to the blend below should be used to seed the treated areas with desirable species in order compete with weed species. The germination of desirable species along with continued herbicide weed control and monitoring will help increase the likelihood of long term control.

**Dryland Blend**

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| Slender wheatgrass (E*lymus trachycaulus)* | 7 PLS Lbs/ Ac |
| Sheep fescue (*Festuca ovina)* | 2 PLS Lbs/ Ac |
| Smooth brome (*Bromus inermis)* | 4 PLS Lbs/ Ac |
| Pubescent wheatgrass (*Agropyron trichophorum)* | 3 PLS Lbs/ Ac |
| Intermediate wheatgrass (*Agropyron intermedium)* | 2 PLS Lbs/ Ac |
| Crested wheatgrass (*Agropyron cristatum)* | 2 PLS Lbs/ Ac |
| Western wheatgrass (*Pascopyrum smithii*) | 3 PLS Lbs/ Ac |
| Arizona fescue (*Festuca arizonica)* | 2 PLS Lbs/ Ac |
| Blue grama (*Bouteloua gracilis)* | 2 PLS Lbs/ Ac |