Date of Review: 5-5-21 Site: 37.67722 -104.72776 Permit #: Lone Tree - Permit #M-2014-034 Status: Active\ldle County: Huerfano State: Colorado Type: Non-metallic surface Reviewed By: C. Bryant CDA Applicator License#: 33222

A. SITE OBSERVATIONS

The mined\disturbed area of the Lone Tree Pit is approximately 11 acres. This site is currently idle, but still considered active. Mining operations will resume at an undetermined future date. Disturbed areas have seen the establishment of limited native vegetation, with large bareground areas occupying most of the acreage, as reclamation efforts have yet to be implemented. Portions of the perimeter berm have a considerable amount of cheatgrass and Russian thistle and will need treatments.

B. COLORADO STATE LIST NOXIOUS WEEDS PRESENT

While conducting the reclamation process review, only a few of state "C list" noxious weeds were encountered, primarily along the main haul road. The observed species were: Redstem filaree and cheat grass. Other non-noxious invasive species found on site include kochia and Russian thistle.

1. Distribution of Noxious\Invasive Species

The greatest density of kochia, Russian thistle, cheatgrass and Redstem filaree were encountered along the perimeter of the haul road and in a few other isolated areas that seem to be consistent with quantities found elsewhere in the undisturbed, non-mine areas immediately surrounding the site. Redstem filaree and kochia did not appear to be forming any monocultures as is common with these varieties, and their overall threat level was deemed insignificant. Russian thistle and cheat grass appear to be forming fairly dense monocultures among spoil piles and the entire berm perimeter. These areas will require a follow up foliar treatment to suppress and contain growth.

2. Anticipated Treatment Methods

Given their widespread distribution, Russian thistle and cheat grass are likely to become problematic. A spring time\early summer chemical application of **E2 herbicide (2,4-d+dicamba+fluroxypyr) @ 2 pints\acre** will be used to control the areas where Russian thistle appears to be problematic. Areas that have monocultures of cheatgrass will be treated prior to seed development with **Ecomazapyr herbicide**. Ecomazapyr (imazapyr) will be applied post emergence using spot spraying techniques that will limit off-target damage to desirable vegetation. Imazapyr will provide some soil residual so pre-emergent control is anticipated as well. While Russian thistle is not a Colorado State List noxious species, it is a non-native invasive species that will hamper reclamation efforts if left unchecked. The other **C list species** documented on site will be monitored and site operations are anticipated to exert enough pressure to preclude any further growth or establishment during active operation. All state list noxious weed species will be monitored and control efforts will be taken should the overall density and coverage increase beyond tolerable thresholds, unless control is otherwise directed by the Bureau of Reclamation.

C. CONCLUSION OF ANNUAL REVIEW

After a comprehensive review of site conditions and plant inventory, the overall site condition has been deemed **unsatisfactory**. The unsatisfactory progress status was determined due to the following factors:

- 1. An abundance of noxious weed or non-desirable species forming monocultures.
- 2. The threat of invasive\non-desirable vegetation preventing the establishment of native\desirable vegetation.

D. MANAGEMENT GOALS

Given the widespread nature of the target species, eradication is not feasible. The overall management goal will be the suppression and containment of the target species within the mine area. This will aid in the establishment of desirable vegetation within the site. Species will be treated prior to seed set\flowering to prevent the further introduction\production of viable seed.









