

DRMS 2018 MLRB Permit Annual Report

MLRB 1978-208

Shaffers Crossing Quarry – Elk Creek Sand & Gravel LLC

Prepared by

Moore J

11/19/18

Symbol INDEX



reclaimed area with no apparent growth under current weed control plan, limited plantings or other than ornamental trees, some willows (*lpx. Sp.*) within riparian habitat or channel.



reclaimed area along prism of highwall indicates some success with reclamation over 1 ac restored/reclaimed allowing for reestablished vegetation species as follows



storage areas primarily to include riprap, aggregates and other reclamation materials and other (stabilized)



yellow line designates the limits of the intersection between active mining area and completed highwall, stabilized and final



a pale blue line indicates the typical easement/egress/exit routes primarily used as part of traffic flow ( this in compliance with BMPs to maintain fugitive dust exposure within permit levels)



the green line indicates the perimeter significantly reclaimed approximately, inside the active mine permit limits, and as stipulated under the weed control plan, where this is performing in conjunction with BMPs and the weed control plan submitted and on file with DRMS (2018)

A – entry gate to adjacent property includes fencing pursuant to DRMS reqmnts

B – FUTURE active mining area (hardrock) and direction of planned mining phases to include a shot block in place from which active extraction is taking place currently

C – Final grading and some stabilization final elevation established in accordance with stipulations within the site plan, grading plan and weed control plan together with BMPs for erosion control, weed control, drainage discharge, etc.

D – office and scale

D – adjacent arboreal North facing flank of PARCEL B, indicating the bulk of the collection are for contributory non =point discharge (Area A') with no apparent run-off issues / other (Bothe contribution area A', B' n the Westerly exposure were inspected and approved as being compliant and noncontributory per Jefferson County H & T, G Bennetts 11/9/18). Incorporates Drainage basin (Per CDOT ) A' by reference

E – masonry shop building (1985)

F – employee only and other vehicle parking and maintenance area adjacent to oil storage in compliance with MSHA Part 46

f' – ROW and parking

G - vacant

H – access route to highwall

I – Active shot mine block from which current extraction taking place

J – egress and signage, exit and discharge ramp

K - materials storage (multiple locations) and loadout area

L – active plant closed-circuit crushing and prescreen

M – boneyard and jaw/surge pile

N – oversize storage and some other secondary reclamation materials stockpile and initial phasing of detention pond pursuant to County site plan (2006)

O – active highwall

P – final highwall consistent with initial geotechnical proposal and in compliance with recommendations of expert together with mine design criteria establishing final recommended bench configurations and layout

Q – reclaimed areas inside of boundary limits and within pit limit prescribed reclaim area offered in accordance with criteria as stipulated in weed control program, under and in compliance with the 1990 Colorado Noxious Weed Act (Act), Colorado Revised Statute Title 35 Article 5.5 (CRS 35-5.5-101) whereby the Colorado

legislature places all public and private lands in Colorado under the jurisdiction of local governments to manage noxious weeds in any area of the state (DPI, 2002). The plan allows for integrated weed management via cultural, mechanical, and as necessary chemical or biological methods with revegetation and stabilization of graded slopes taken place, no perceptible/visible erosion issues indicated nor other. Noxious weeds and the approved plantings are indicated and listed as follows | compliance with eh stipulations as outlined in the DRMS Annual reporting requirements:

(Report follows)

**NOXIOUS WEEDS AND REVEGETATION PROGRESS UNDER THE PRESCRIBED WEED CONTROL PLAN**  
(OCT 2018) (technical revision by Operator)

The Act defines noxious weeds as "an alien plant or parts of an alien plant that have been designated by rule as being noxious or have been declared a noxious weed by a local advisory board, and meets one of the following criteria;

Aggressively invades or is detrimental to economic crops or native plant communities; is poisonous to livestock;

Is a carrier of detrimental insects, diseases, or parasites; or

The direct or indirect effect of the presence of this plant is detrimental to the environmentally sound management of natural or agricultural ecosystems."

There are not a lot of noxious weeds as these are systematically hand removed, but those occurring appear to be predominantly:

cheatgrass,

lesser amounts of diffuse knapweed (*Acosta diffusa*)

spotted knapweed (*A. maculosa*)

Canada thistle (*Cirsium arvense*)

## PLANTINGS

Riparian and coniferous forests flank the hillside and shrublands line a channel (unnamed drainage) that runs west-east through the study area south of SH285. The forests include

Aspen

Ponderosa pine (pinus)

Spuce

riparian shrublands are dominated by thickets of

coyote willow (*Salix exigua*).

Wetlands consist of a mix of various persistent emergent species common to the region. Representative species include

reed canary grass (*Phalaris arundinacea*),

Nebraska sedge (*Carex nebrascensis*),

various rushes (*Juncus* sp.)

cattails (*Typha latifolia*).

Remnant native upland vegetation is dominated by short-grass prairie species of Foothills Grasslands (CNAP, 1998). Common species include

three-awn grass (*Aristida* sp.),

sand drop seed (*Sporobolus cryptandrus*),

rabbitbrush (*Chrysothamnus nauseosus*),

poison ivy (*Toxicodendron radicans*)

prickly pear cactus (*Opuntia polyacantha*).

smooth brome (*Bromus inermis*) is more common in the disturbed areas.