

STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Dowe Flats Mine / M-1993-041 / Adequacy Review No. 2

Robin Bay <rbay@habitatmanagementinc.com>

Tue, Apr 21, 2020 at 6:05 AM

To: "Eschberger - DNR, Amy" <amy.eschberger@state.co.us>, Cita Cisse <cita.cisse@cemex.com>

Cc: Uwe Lubjuhn <uwe.lubjuhn@cemex.com>, Scott A Harcus <scotta.harcus@cemex.com>

Amy,

I have attached Cemex's response to your Adequacy Review No. 2 for Technical Revision No. 4 to the Dowe Flats Mine, Permit No. M-1993-041.

Thank you,

Robin

Robin Forest Bay*Sr. Environmental Scientist*

Habitat Management, Inc.

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**Dowe Flats (M-1993-041) TR #4 Adequacy Response No.2.pdf**
2254K



April 21, 2020

Ms. Amy Eschberger
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203

RE: Dowe Flats Quarry, Permit No. M-1993-041, Technical Revision #4, Adequacy Review No. 2 Response

Ms. Eschberger:

On April 16th, 2020, CEMEX received your Adequacy Review No. 2 in response to our April 10th submittal of the Preliminary Adequacy Review Response to Technical Revision #4 (TR-04) to the Dowe Flats Permit (M-1993-041). Your Adequacy Review No. 2 identified two additional adequacy items to be addressed.

- 1) CEMEX requests at maximum disturbance area of 325 acres. While the current status of the Affected Area lands is as shown in Table 1 of our Adequacy Response, constructing the wetland as shown on the approved Reclamation Plan map will require disturbance of 10 acres that are currently undisturbed. Because of this, we included the larger area in the reclamation bond estimate.
- 2) The seed mixtures used in the reclamation bond estimate are those from Tables E-1 and E-2 of the Reclamation Plan submitted with Amendment #1 (AM-01) in 1994. All of the AM-01 seed mixtures are attached to this letter for your reference.

Please contact me if you need additional information at 720-207-8492 or cita.cisse@cemex.com.

Sincerely,

A handwritten signature in black ink that reads "Cita cisse".

Cita Cisse
Quarry Manager, Lyons Plant Operations

Enclosures: Dowe Flats Reclamation Seed Mixtures from AM-01

Cc: Scott Marcus, Environmental Manager, Lyons Plant Operations
Dr. Uwe Lubjuhn, Plant Manager, Lyons Plant Operations
Robin Bay, Sr. Environmental Scientist, Habitat Management, Inc.



Table E-1. Plant Material Mixes - Grassland

<u>Scientific Name</u>	<u>Common Name - Variety^a</u>	<u>Seeding Rate (PLS lb/ac)^b</u>	
<u>GRASSES</u>			
Agropyron dasystachyum ^c	Thickspike Wheatgrass - Critana	0.4	1.0
Agropyron inerme ^c	Beardless Bluebunch Whtgs - Whitmar	2.2	5.5
Agropyron riparium ^c	Streambank Wheatgrass - Sodar	0.6	1.5
Agropyron smithii ^c	Western Wheatgrass - Arriba	1.5	3.8
Agropyron spicatum ^c	Bluebunch Wheatgrass - Secar	1.9	4.8
Bouteloua curtipendula	Sideoats Grama - Vaughn	0.9	2.3
Bouteloua gracilis	Blue Grama - Native, Alma	0.2	0.5
Buchloe dactyloides	Buffalo Grass	2.9	7.3
Festuca arizonica ^c	Arizona Fescue - Redondo	0.6	1.5
Koeleria macrantha	Junegrass	0.03	0.08
Oryzopsis hymenoides	Indian Ricegrass - Nezpar, Paloma	1.9	4.8
Poa canbyi	Canby Bluegrass - Canbar	0.2	0.5
Schizachyrium scoparium	Little Bluestem - Blaze, Pastura	1.0	2.5
Stipa comata	Needleandthread	1.4	3.5
Stipa viridula	Green Needlegrass - Lodorm	0.9	2.3
<u>FORBS</u>			
Achillea lanulosa	Western Yarrow	0.01	0.03
Aster glaucodes	Glaucous Aster	0.06	0.15
Coreopsis tinctoria	Plains Coreopsis	0.03	0.08
Heliomeris multiflora	Showy Goldeneye	0.03	0.08
Linum lewisii	Blue Flax	0.11	0.28
Medicago sativa	Alfalfa - Ladak	0.16	0.40
Penstemon palmeri	Palmer Penstemon - Cedar	0.05	0.13
Petalostemon purpureum	Purple Prairie Clover - Kanab	0.11	0.28
Ratibida columnifera	Prairie Coneflower	0.03	0.08
Sphaeralcea coccinea	Orange Globemallow	0.06	0.15

^a Variety unnamed native unless specified ^b PLS = Pure Live Seed
species that will be sown only in every third drill furrow.

^c More aggressive



Table E-2. Plant Material Mixes - Herbaceous Wetland

<u>Scientific Name</u>	<u>Common Name - Variety^a</u>	Seeding	
		Rate (PLS lb/ac)^b	
<u>GRASSES</u>			
Asclepias incarnata	Swamp Milkweed	NA	0.25
Scirpus paludosus	Alkali Bulrush	NA	2.0
Typha latifolia	Broadleaf Cattail	NA	2.0
		Planting Rate	
		<u>Stems / acre</u>	
Juncus arcticus	Baltic Rush	---100---	
Sagittaria latifolia	Common Arrowhead	---400---	
Scirpus acutus	Hardstem Bulrush	---500---	
Scirpus pungens	Threesquare	---500---	

^a Variety unnamed native unless specified ^b PLS = Pure Live Seed



Table E-3. Cover Crops for Use in Revegetation

<u>Crop</u>	<u>Date of Planting</u>	<u>Date of Seeding</u>	<u>Rate(PLS lb/ac)</u>
Wheat/Wheatgrass Hybrid			
("Regreen)	4/1 to 5/15	Next fall	35
	8/15 to 10/1	Next spring	35
Oats	4/1 to 5/15	Next fall	30
Winter Wheat	8/1 to 10/1	Next fall	25
Spring Barley	4/1 to 5/15	Next fall	30
Long-season (southern) sorghum	5/15 to 7/15	Next fall	10



Table E-4. Plant Material Mixes -Temporary Stabilization Sites

<u>Scientific Name</u>	<u>Common Name - Variety^a</u>	<u>Seeding</u>	
		<u>Rate (PLS lb/ac)^b</u>	
<u>GRASSES</u>			
Agropyron dasystachyum	Thickspike Wheatgrass - Critana	3.0	6.0
Agropyron riparium	Streambank Wheatgrass - Sodar	3.0	6.0
Agropyron smithii	Western Wheatgrass - Arriba	3.0	6.0
Agropyron trachycaulum	Slender Wheatgrass - Premier, San Luis	3.0	6.0
Festuca rubra	Creeping Red Fescue - Dawson	1.0	3.0

^a Variety unnamed native unless specified ^b PLS = Pure Live Seed