



June 7, 2022

Mrs. Janet Binns
Environmental Protection Specialist
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

**RE: New Horizon Mine (Permit No. C-1981-008)
Technical Revision No. 105 (TR-105)
Incidental Permit Boundary Revision**

Dear Mrs. Binns:

Tri-State Generation and Transmission Association Inc. (Tri-State), is the parent company to Elk Ridge Mining and Reclamation, LCC (ERMR), which owns and operates the New Horizon Mine. The New Horizon Mine operates under the Division of Reclamation, Mining and Safety (DRMS) Permit No. C-1981-008. Therefore, Tri-State on behalf of ERMR is submitted TR-105 to Permit No. C-1981-008.

TR-105 proposes to reduce the permit boundary to remove Phase III released reclamation areas from the permit boundary.

If you have any questions about the request, please contact Tony Tennyson at (970) 326-3560 or tennyson@tristategt.org.

Sincerely,

DocuSigned by:

Chris Gilbreath

D250C711D0BF450...

Chris Gilbreath
Senior Manager,
Remediation and Reclamation

CG:TT:der

Enclosures

cc: Tony Tennyson (via email)
File: G474-11.3(21)b-4

CHANGE SHEET FOR PERMIT REVISIONS, TECHNICAL REVISION, AND MINOR REVISIONSMine Company Name: New Horizon MineDate: **May 19, 2022**Permit Number: **C-1981-008**Revision Description: **TR-105 Incidental
Boundary Revision**

Volume Number	Page, Map or other Permit Entry to be	Page, Map or other Permit Entry to be	Description of Change
	REMOVED	ADDED	
1	Section 2.03 Page 12 (1 page)	Section 2.03 Page 12 (1 page)	Section 2.03.8 has been updated.
1	Attachment 2.03.8-1 Pages 1 through 4 (4 pages)	Attachment 2.03.8-1 Pages 1 through 5 (5 pages)	Attachment 2.03.8-1 has been updated.
1	Section 2.04.3 Pages 2.04.3-1, 2.04.3-4, and 2.04.3-5 (3 pages)	Section 2.04.3 Pages 2.04.3-1, 2.04.3-4, and 2.04.3-5 (3 pages)	Citations for Map 2.03.4 have been revised to Map 2.04.10.
1	Map 2.04.3		Map 2.04.3 is being removed from the permit as the same information is shown on Map 2.04.10.
1	Map 2.03.4-1	Map 2.03.4-1	Map 2.03.4-1 has been updated.
1	Map 2.03.4-2	Map 2.03.4-2	Map 2.03.4-2 has been updated
1	Map 2.04.6-7	Map 2.04.6-7	Map 2.04.6-7 has been updated.
2	Map 2.04.7-1A	Map 2.04.7-1A	Map 2.04.7-1A has been updated.
3	Map 2.04.9-1	Map 2.04.9-1	Map 2.04.9-1 has been updated.
4	Map 2.04.10	Map 2.04.10	Map 2.04.10 has been updated.
5	Map 2.04.11-1	Map 2.04.11-1	Map 2.04.11-1 has been updated.
6	Map 2.05.3(3)-1	Map 2.05.3(3)-1	Map 2.05.3(3)-1 has been updated.
6	Map 2.05.3(3)-3	Map 2.05.3(3)-3	Map 2.05.3(3)-3 has been updated.
7			No change
8	Map 2.05.4-1	Map 2.05.4-1	Map 2.05.4-1 has been updated.
8	Map 2.05.4-1-3	Map 2.05.4-1-3	Map 2.05.4-1-3 has been updated.
8	Map 2.05.4-4	Map 2.05.4-4	Map 2.05.4-4 has been updated.
8	Map 2.05.4-5	Map 2.05.4-5	Map 2.05.4-5 has been updated.
9			No change
10	Map 4.05.18-1	Map 4.05.18-1	Map 4.05.18-1 has been updated.

2.03.7(2) Legal and Financial Commitments.

New Horizon Mine has a contractual obligation to supply coal from the New Horizon Mine to the Nucla Power Generating Station owned by Tri-State Generation & Transmission Association.

2.03.7(3) Ownership Waivers.

There are five occupied dwellings within 300 feet of the actual mining disturbance from 1993 to the present located within the New Horizon Mine permit area. There are no occupied dwellings within 300 feet of the projected mining disturbance from the present to end of the renewed permit period (May 26, 2023). Copies of waivers from the owners of these dwellings consenting to mining operations are included as Attachment 2.03.7-1.

2.03.8 Permit Term Information

The total area within the New Horizon Mine permit boundary is 345.9 acres. A legal description of the New Horizon Mine permit boundary is included in Attachment 2.03.8-1.

2.03.9 Personal Injury & Property Damage Insurance Information

This information is included as Attachment 2.03.9-1.

2.03.10 Identification of Other Licenses and Permit Pertinent to Surface Coal Mining

FEDERAL

Mine Safety and Health Administration (MSHA)

2nd Street, Building 25, E-18

Denver, CO 80225

Mine I.D. Number: 05-00299

Effective: May 17, 1993

Federal Communications Commission (FCC)

1270 Fairfield Road

Gettysburg, PA 17325

New Horizon Mine has a frequency of 151.775 MHz & call sign of WPGP927.

Effective: February 22, 1995

Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF)

New Horizon Mine will not store, transport or use explosives. All blasting will be done by a licensed contractor.

The New Horizon permit area consists of five separate parcels as summarized below in Table 1. Each is described with a bearing and distance description following Table 1.

Table 1: New Horizon 2 Permit Area

Area	Township	Range	Section	Partial Description	Acres
Parcel 1	T46N	R15W	Section 6	a portion of the S/2	26.2
Parcel 2	T46N	R15W	Section 6	a portion of the N/2	6.8
Parcel 3	T47N	R16W	Section 36	a portion of the S/2	13.1
Parcel 4	T47N	R16W	Section 36	a portion of the S/2	185.8
Parcel 5	T46N	R16W	Section 1	a portion of the N/2	114.0
				Total	345.9

Parcel 1, lays in the S/2 of Section 6, Township 46 North, Range 15 West of the New Mexico Principal Meridian, Montrose County, CO, or described specifically as follows:

Commencing at the Northwest corner of said Section 6, said beginning point is S60°53'38" E, a distance of 6311.74 feet;

thence N 89°10'21" E a distance of 177.83';
thence N 01°53'35" W a distance of 34.20';
thence S 83°40'18" E a distance of 128.75';
thence N 02°04'11" E a distance of 240.10';
thence N 88°22'10" W a distance of 565.95';
thence N 88°26'06" W a distance of 505.60';
thence S 35°40'42" E a distance of 62.04';
thence S 49°23'16" E a distance of 45.90';
thence S 32°45'57" E a distance of 18.04';
thence S 18°15'40" E a distance of 18.14';
thence S 06°22'08" E a distance of 24.57';
thence S 11°17'24" E a distance of 18.68';
thence S 01°56'09" W a distance of 30.52';
thence S 11°48'35" E a distance of 46.60';
thence S 13°02'24" E a distance of 41.33';
thence S 08°06'56" W a distance of 35.17';
thence S 01°59'23" E a distance of 67.37';
thence S 02°13'54" W a distance of 59.29';
thence S 15°09'50" W a distance of 50.74';
thence S 21°45'24" W a distance of 30.64';
thence S 22°04'48" W a distance of 45.63';
thence S 28°41'33" W a distance of 34.71';
thence S 16°47'07" W a distance of 64.40';

thence S 12°02'50" W a distance of 51.75';
thence S 01°38'41" E a distance of 44.87';
thence S 07°49'56" E a distance of 59.81';
thence S 04°17'44" E a distance of 34.89';
thence S 01°25'37" E a distance of 49.51';
thence S 26°13'24" W a distance of 16.73';
thence S 08°22'30" E a distance of 22.70';
thence S 09°05'10" E a distance of 31.66';
thence S 00°05'58" W a distance of 32.24';
thence S 03°45'03" W a distance of 28.07';
thence S 17°44'23" W a distance of 40.91';
thence S 26°36'25" W a distance of 27.48';
thence S 41°33'07" W a distance of 10.85';
thence N 60°00'14" W a distance of 31.57';
thence S 48°42'38" W a distance of 30.06';
thence S 38°43'07" W a distance of 103.25';
thence S 54°21'22" E a distance of 570.97';
thence S 83°11'40" E a distance of 667.94';
thence N 03°01'47" E a distance of 149.28';
thence N 83°52'17" W a distance of 300.59';
thence N 01°57'25" E a distance of 1108.20';
which is the point of beginning, having an area of 26.2 acres more or less

Parcel 2, lays in the N/2 of Section 6, Township 46 North, Range 15 West of the New Mexico Principal Meridian, Montrose County, CO, or described specifically as follows:

Commencing at the Northwest corner of said Section 6, said beginning point is S82°14'03" E, a distance of 228.12 feet;
thence N 88°14'49" W a distance of 1373.12';
thence N 02°37'19" E a distance of 297.72 ;
thence S 88°15'49" E a distance of 378.73' ;
thence S 01°48'41" W a distance of 31.48';
thence S 62°14'33" E a distance of 43.06';
thence S 78°45'36" E a distance of 57.13';
thence S 81°53'40" E a distance of 53.36';
thence S 59°51'26" E a distance of 48.06';
thence S 34°39'12" E a distance of 21.96' ;
thence S 00°22'27" E a distance of 24.96';
thence S 87°58'30" E a distance of 75.92' ;
thence N 82°31'39" E a distance of 39.15';
thence S 82°09'40" E a distance of 83.52';
thence N 87°18'01" E a distance of 75.05';

thence N 88°21'21" E a distance of 90.55';
thence S 86°45'56" E a distance of 61.15';
thence N 88°54'56" E a distance of 41.37';
thence S 85°45'59" E a distance of 78.17';
thence S 86°19'10" E a distance of 90.63';
thence N 86°23'28" E a distance of 82.99';
thence N 78°46'38" E a distance of 56.90';
thence S 81°02'01" E a distance of 16.41';
thence S 02°35'08" W a distance of 106.00';
thence S 02°35'08" W a distance of 81.43';
which is the point of beginning, having an area of 6.82 acres, more or less.

Parcel 3, lays in the S/2 of Section 36, Township 47 North, Range 16 West of the New Mexico Principal Meridian, Montrose County, CO, or described specifically as follows.

Commencing at the Southeast corner of Section 36, said beginning point is N 27°42'48" W, a distance of 1714.7';
thence N 85°45'15" E a distance of 632.76';
thence S 04°34'45" E a distance of 912.17';
thence S 84°46'42" W a distance of 613.92';
thence N 05°45'03" W a distance of 922.93';
which is the point of beginning, having an area of 13.128 acres more or less

Parcel 4, lays in the S/2 of Section 36, Township 47 North, Range 16 West of the New Mexico Principal Meridian, Montrose County, CO, or described specifically as follows.

Commencing at the Southeast corner of Section 36, said beginning point is N 85°58'47" W, a distance of 962.4;
thence N 87°34'00" W a distance of 1677.24'to a ;
thence N 87°26'24" W a distance of 753.20'to a ;
thence N 36°52'38" W a distance of 566.93'to a ;
thence N 58°36'06" W a distance of 698.32'to a ;
thence S 69°18'22" W a distance of 689.74'to a ;
thence S 59°51'27" W a distance of 335.51'to a ;
thence N 02°15'28" E a distance of 1658.26'to a ;
thence S 88°13'16" E a distance of 1341.82'to a ;
thence S 02°06'28" W a distance of 50.01'to a ;
thence S 88°11'03" E a distance of 1294.81'to a ;
thence N 02°11'30" E a distance of 645.06'to a ;
thence S 87°21'24" E a distance of 1318.03'to a ;
thence S 87°21'24" E a distance of 658.87'to a ;
thence S 87°21'24" E a distance of 629.22'to a ;
thence S 02°06'54" W a distance of 679.38'to a ;
thence N 54°48'56" W a distance of 241.25'to a ;
thence N 54°51'05" W a distance of 483.38'to a ;

thence S 88°55'02" W a distance of 36.95'to a ;
thence S 79°41'40" W a distance of 19.75'to a ;
thence S 77°04'39" W a distance of 21.60'to a ;
thence S 75°21'55" W a distance of 12.63'to a ;
thence S 71°30'27" W a distance of 18.64'to a ;
thence S 67°14'36" W a distance of 17.23'to a ;
thence S 60°01'08" W a distance of 31.36'to a ;
thence S 61°17'02" W a distance of 24.15'to a ;
thence S 60°53'16" W a distance of 37.67'to a ;
thence S 65°48'22" W a distance of 33.71'to a ;
thence S 76°04'49" W a distance of 27.57'to a ;
thence S 73°37'06" W a distance of 26.99'to a ;
thence S 82°29'42" W a distance of 43.59'to a ;
thence N 87°46'56" W a distance of 50.78'to a ;
thence N 87°25'00" W a distance of 48.50'to a ;
thence N 87°37'24" W a distance of 45.80'to a ;
thence N 89°27'49" W a distance of 39.01'to a ;
thence S 88°39'44" W a distance of 28.79'to a ;
thence S 81°35'00" W a distance of 28.52'to a ;
thence S 75°46'24" W a distance of 16.68'to a ;
thence S 71°10'49" W a distance of 30.04'to a ;
thence S 75°08'06" W a distance of 44.73'to a ;
thence S 89°33'57" W a distance of 36.39'to a ;
thence S 16°05'20" W a distance of 189.44'to a ;
thence S 50°37'02" W a distance of 70.80'to a ;
thence S 62°26'00" W a distance of 55.87'to a ;
thence S 62°39'07" W a distance of 50.72'to a ;
thence S 61°00'21" W a distance of 50.50'to a ;
thence S 59°30'25" W a distance of 50.39'to a ;
thence S 56°26'09" W a distance of 51.17'to a ;
thence S 56°29'12" W a distance of 56.81'to a ;
thence S 57°11'15" W a distance of 51.49'to a ;
thence S 55°43'32" W a distance of 51.64'to a ;
thence S 54°51'59" W a distance of 59.11'to a ;
thence S 65°26'34" W a distance of 63.63'to a ;
thence S 04°27'46" W a distance of 354.71'to a ;
thence S 89°56'40" E a distance of 477.58'to a ;
thence S 01°49'56" W a distance of 625.39'to a ;
thence N 90°00'00" E a distance of 428.35'to a ;
thence S 00°00'00" E a distance of 686.46'to a ;
which is the point of beginning, having an area of 185.839 acres more or less

Parcel 5, lays in the N/2 of Section 1, Township 46 North, Range 16 West of the New Mexico Principal Meridian, Montrose County, CO, or described specifically as follows.

Commencing at the Northeast corner of Section 1, said beginning point is S 61°20'06" W, a distance of 3595.49';
thence S 43°31'33" W a distance of 192.16';
thence N 61°35'11" W a distance of 182.25';
thence N 61°35'11" W a distance of 51.19';
thence N 04°44'27" E a distance of 137.29';
thence N 88°10'01" W a distance of 298.14';
thence with a curve turning to the right with an arc length of 363.55', with a radius of 230.00', with a chord bearing of N 42°53'07" W, with a chord length of 326.86';
thence N 02°23'39" E a distance of 1505.33';
thence S 87°26'19" E a distance of 1301.57';
thence S 87°26'20" E a distance of 1314.93';
thence S 87°24'14" E a distance of 1294.70';
thence S 01°59'04" W a distance of 734.80';
thence N 88°46'54" W a distance of 1441.96';
thence S 47°10'12" W a distance of 1246.34';
thence N 88°09'43" W a distance of 348.89';
thence S 01°50'17" W a distance of 128.86';
thence S 87°26'01" W a distance of 389.83';
which is the point of beginning, having an area of 114.01 acres, more or less.

Table of Contents
Section 2.04.3
Site Description and Land Use Information

Table of Contents

1.0 Pre-Mining and Existing Land Use at the New Horizon Mine.....	2
2.0 Adjacent Land Use.....	3
3.0 Historic and Existing Land Use on the Permit Area.....	4
4.0 Description of Pre-Mine Land Use Areas.....	5
4.1 Cropland - Irrigated Orchards (ICO)	5
4.2 Cropland - Irrigated Alfalfa Hay (IC).....	5
4.3 Cropland - Irrigated Small Grain (ICSG)	5
4.4 Pastureland - Irrigated Hay (IPH)	5
4.5 Pastureland - Irrigated Grass (IP)	5
4.6 Pastureland - Irrigated Swales (IPSW)	6
4.7 Rangeland - Sagebrush (SG), Sagebrush-1 (SG-1) and Sagebrush-2 (SG-2).....	6
4.8 Pinyon - Juniper (PJ).....	6
4.9 Rangeland - Deciduous Trees (DT)	6
4.10 Commercial - Roads (R)	6
4.11 Floodplains (FP).....	6
4.12 Residential - Farmsteads (F)	6
4.13 Residence - Open Space Areas (D).....	6
4.14 Developed Water Resource - Ponds (P).....	6
5.0 General Discussion of the History and Land Use of the New Horizon Mine Permit Area	6
Literature Cited	9

List of Maps

Map 2.04.10 - Vegetation Baseline and Pre-Mine Land Use Map

areas of riparian vegetation associated with Tuttle Draw and several small tributaries. It is probable that irrigation tailwater has created or significantly enhanced areas of riparian vegetation.

3.0 Historic and Existing Land Use on the Permit Area

The original permit area consisted of lands north of Tuttle Draw mined by predecessor companies from 1958 to 1983. In the early 1980's, one of the predecessor companies (Peabody) permitted, but did not mine an area south of Tuttle Draw and west of the Town of Nucla. This area, labeled Nucla East by Peabody, is now known as New Horizon Mine by ERM. The historic land use on the principal New Horizon Mine area has been mostly irrigated pasture and native rangeland. Existing use for New Horizon Mine are irrigated fields (mostly irrigated pastureland), abandoned irrigated fields, native rangeland, mining disturbances, mine-related activities, and reclamation. In most cases, pre-mine irrigation methods utilized flooding the land using gravity. Sideroll irrigation, which is more efficient, was generally not used.

This mine permit area and surrounding released land, prior to 1958 when mining activities were begun by the Edna Coal Company, was fairly well split between irrigated agricultural land and native rangeland/wildlife habitat. Irrigated agricultural land is meant to encompass irrigated pasture, cropland and hayland. These are differentiated by the amount of alfalfa in the fields as well as the intensity of the management of the irrigation. By the time Peabody purchased the Navajo/Nucla Mine in 1963, nearly all irrigated lands south of the east-west county road had been abandoned and approximately one quarter of the present permit area was affected by mining activities. In May 1983, Surface Mine Permit No. C-008-81 was approved for the Nucla Mine. At that time, approximately two-thirds of the original permit area was affected by mining activities and all irrigated lands south of the county bypass road and west of the north-south county road had been abandoned. The Nucla Mine was purchased by ERM in 1992 and the name was changed to the New Horizon Mine.

It has been a normal practice for farmers to historically move water from one field to another within their property or sell water to other people in the area to allow them to irrigate another field for some time interval. Map 2.04.10 provides the land uses for the permit area.

Table 2.04.3-1 "Acreages by Land Use, New Horizon Mine Permit Area" lists the various land uses within the permit area and the corresponding acreages. A discussion of these various land uses follows.

One area of former Irrigated Hayland is classified as Irrigated Cropland on the Morgan property due to consistent baling of hay and good soils. The majority of soils on the Morgan property in the permit area are prime farmland soils, as determined by the NRCS in 2008. These changes are reflected in the following maps: 2.04.3 Pre-Mine Land. In the 1999 soils and vegetation study conducted by Jim Irvine of IRI, a number of Irrigated Pasture areas and Irrigated Pasture Swales

were identified on the Morgan property. Subsequent discussions with the Morgan's have taken place where they believe that over the years, the historic use of these areas has been Irrigated Cropland. For this reason, the Irrigated Pasture areas are re-designated as Irrigated Cropland. The GW46 Trust property, east of 2700 Road has been both irrigated and used as dryland in the past.

There are 5 types of Rangeland - Sagebrush (SG), Sagebrush 1 (SG-1) and Sagebrush 2 (SG-2), Floodplain and Deciduous Trees. Roads (R) are classified as Commercial use and Farmsteads and associated open space disturbances are now classified as Residential use. Existing Disturbed lands have now been called Residential - Open Space Disturbed Areas. No boundaries of these land use areas have been changed; only the classification categories to comply with Rule 1.04.

4.0 Description of Pre-Mine Land Use Areas

See Map 2.04.10 for the exact location of all of these areas. Detailed descriptions of the pre-mine vegetation types are included in Section 2.04.10 Vegetation Information.

4.1 Cropland - Irrigated Orchards (ICO) This category includes a few abandoned fruit tree orchards from decades ago. They were not well kept during initial permitting in 1987.

4.2 Cropland - Irrigated Alfalfa Hay (IC) These areas have some combination of grass and alfalfa which are well-managed, irrigated consistently with application of fertilizer and harvested. Alfalfa is the predominant plant. These lands have primarily prime farmland soils, as determined by the NRCS in 2008. See discussion in this section on Prime Farmlands and prime Farmland Soils.

4.3 Cropland - Irrigated Small Grain (ICSG) These areas were historically used for small grain production. Within the permit area, soils where this type is delineated are generally shallow and boggy, and not considered to have a high crop production potential. During the baseline sampling year (1987) it was noted that the two ICSG areas were not tilled after harvest the previous year and were allowed to volunteer barley, along with annual and perennial weeds.

4.4 Pastureland - Irrigated Hay (IPH) These areas have some combination of grass and alfalfa which are not as well-managed as cropland, and not irrigated consistently but better managed than irrigated pasture. IPH areas are generally baled, where irrigated pasture areas are not. Vegetation cover is still very good, depending on the soils of the actual site.

4.5 Pastureland - Irrigated Grass (IP) These areas are primarily grasses but are not as well managed as Pastureland - Irrigated Hay, have poorer soils and do not yield as much vegetation. None of these areas are baled.