

**TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.**

HEADQUARTERS: P.O. BOX 33695 DENVER, COLORADO 80233-0695 303-452-6111

February 22, 2021

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. 102 (TR-102)
Permit Boundary Reduction

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 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 submitting TR-102, which proposes to reduce the permit boundary by 2.2 due to Phase III bond release.

If you have any questions about the enclosed technical revision or require additional information on this proposal, please contact Tony Tennyson at (970) 326-3560 or tennyson@tristategt.org.

Sincerely,

DocuSigned by:

Daniel Casiraro

B70D69F114324DE...

Daniel J. Casiraro
Senior Manager
Environmental Services

DJC:TT:der

Enclosures

cc: Frank Ferris (via email)
Chris Gilbreath (via email)
Tony Tennyson (via email)
File: G474-11.3(21)b-4

CHANGE SHEET FOR PERMIT REVISIONS, TECHNICAL REVISION, AND MINOR REVISIONS

Mine Company Name: New Horizon Mine

Date: **February 22, 2021**

Permit Number: **C-1981-008**

Revision Description: **TR-102 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 has been updated.
1	Attachment 2.03.8-1 Pages 1 through 5 (5 pages)	Attachment 2.03.8-1 Pages 1 through 4 (4 pages)	Attachment 2.03.8-1 has been updated.
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 2.04.3	Map 2.04.3	Map 2.04.3 has been updated.
1	Map 2.04.6-1	Map 2.04.6-1	Map 2.04.6-1 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 2.04.10	Map 2.04.10	Map 2.04.10 has been updated.
4	Map 2.04.9-1	Map 2.04.9-1	Map 2.04.9-1 has been updated.
5	Attachment 2.05.3(3)-1 Pages 2, 5, 6, 9, and 11 (2 pages)	Attachment 2.05.3(3)-1 Pages 2 and 11 (2 pages)	Attachment 2.05.3(3)-1 has been updated.
5	Map 2.05.3(3)-1	Map 2.05.3(3)-1	Map 2.05.3(3)-1 has been updated.
5	Map 2.05.3(3)-3	Map 2.05.3(3)-3	Map 2.05.3(3)-3 has been updated.
6	Attachment 2.05.3(3)-5 All pages (26 pages)		Pond 009 is being removed from the permit document as it no longer exists.
7	Attachment 2.05.3(3)-30 All pages (35 pages)		Pond 009 is being removed from the permit document as it no longer exists.
7	Attachment 2.05.3(3)-30 Map 1 Pond 009 (1 page)		Pond 009 is being removed from the permit document as it no longer exists.
8	Map 2.05.4-4	Map 2.05.4-4	Map 2.05.4-4 has been updated.
8	Map 2.05.4-1	Map 2.05.4-1	Map 2.05.4-1 has been updated.
8	Map 2.05.4-5	Map 2.05.4-5	Map 2.05.4-5 has been updated.
9	Section 4.05.18 Pages 2 and 3 (2 pages)	Section 4.05.18 Pages 2 and 3 (2 pages)	Section 4.05.18 has been updated.
9	Map 4.05.18-1	Map 4.05.18-1	Map 4.05.18-1 has been updated.
10			No changes

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 400.3 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 four 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	253.3
Parcel 4	T46N	R16W	Section 1	a portion of the N/2	114.0
				Total	400.3

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'to a ;
 thence N 02°37'19" E a distance of 297.72'to a ;
 thence S 88°15'49" E a distance of 378.73'to a ;
 thence S 01°48'41" W a distance of 31.48'to a ;
 thence S 62°14'33" E a distance of 43.06'to a ;
 thence S 78°45'36" E a distance of 57.13'to a ;
 thence S 81°53'40" E a distance of 53.36'to a ;
 thence S 59°51'26" E a distance of 48.06'to a ;
 thence S 34°39'12" E a distance of 21.96'to a ;
 thence S 00°22'27" E a distance of 24.96'to a ;
 thence S 87°58'30" E a distance of 75.92'to a ;
 thence N 82°31'39" E a distance of 39.15'to a ;
 thence S 82°09'40" E a distance of 83.52'to a ;
 thence N 87°18'01" E a distance of 75.05'to a ;
 thence N 88°21'21" E a distance of 90.55'to a ;
 thence S 86°45'56" E a distance of 61.15'to a ;
 thence N 88°54'56" E a distance of 41.37'to a ;

thence S 85°45'59" E a distance of 78.17'to a ;
thence S 86°19'10" E a distance of 90.63'to a ;
thence N 86°23'28" E a distance of 82.99'to a ;
thence N 78°46'38" E a distance of 56.90'to a ;
thence S 81°02'01" E a distance of 16.41'to a ;
thence S 02°35'08" W a distance of 106.00'to a ;
thence S 02°35'08" W a distance of 81.43'to a ;
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 86°59'17" W, a distance of 2639.38';
thence S 87°26'20" E a distance of 1314.97';
thence S 87°24'13" E a distance of 1294.12';
thence N 02°07'01" E a distance of 1032.66';
thence N 02°07'28" E a distance of 300.00';
thence N 02°06'54" E a distance of 1273.95';
thence N 87°21'24" W a distance of 629.22';
thence N 87°21'24" W a distance of 658.87';
thence N 87°21'24" W a distance of 1318.03';
thence S 02°11'30" W a distance of 645.06';
thence N 88°11'03" W a distance of 1294.81';
thence N 02°06'28" E a distance of 50.01';
thence N 88°13'16" W a distance of 1341.82';
thence S 02°15'28" W a distance of 1658.26';
thence N 59°51'27" E a distance of 335.51';
thence N 69°18'22" E a distance of 689.74';
thence S 58°36'06" E a distance of 698.32';
thence S 36°52'38" E a distance of 566.93';
thence S 87°26'24" E a distance of 753.20';
which is the point of beginning, having an area of 253.30 acres, more or less.

Parcel 4, 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.

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The summary table below lists the design information for all ditches for the entire permit area.

Table 2.05.3(3)-1 Collection Ditch and Diversion Ditch Designs												
Structure	Watershed Basin(s)	Watershed Area (acres)	Watershed % Avg. Slope	Runoff Curve No.	Design Storm (yrs)	Time of Conc. (hrs)	Peak Flow (cfs)	Avg. Ditch Slope %	Ditch Bottom Width (ft)	Ditch Depth (ft)	Velocity at Design Flow (ft/sec)	Comments
C4A	Pond 018	-	-	-	100	-	23.2	2.9	8	1.40	3.52	Attachment 2.05.3(3)-28
East Ditch	Pond 018	-	-	-	100	-	8.91	5.0	8	1.00	2.60	Attachment 2.05.3(3)-28
C5	Pond 016	-	-	-	100	-	7.10	5.0	4	1.12	2.89	Attachment 2.05.3(3)-29
Tailwater 0 to 11	Pond 016	-	-	-	100	-	5.73	0.3	2	2.49	1.05	Attachment 2.05.3(3)-29
Tailwater 11 to 20	Pond 016	-	-	-	100	-	4.85	4.6	2	1.33	3.29	Attachment 2.05.3(3)-29
Tailwater 20 to 34	Pond 016	-	-	-	100	-	1.25	0.7	1	1.45	0.64	Attachment 2.05.3(3)-29
C7	Pond 012	-	-	-	25	-	1.17	2.1	4	0.93	0.91	Attachment 2.05.3(3)-31
C8	Pond 012	-	-	-	25	-	1.74	6.0	4	0.81	1.60	Attachment 2.05.3(3)-31
C9	Pond 013	-	-	-	25	-	6.43	3.2	3	1.32	2.70	Attachment 2.05.3(3)-32
C15	Pond 009	-	-	-	25	-	0.04	8.9	4	0.44	0.21	
C23	Pond 009	-	-	-	25	-	0.15	9.3	4	0.51	0.47	
C24	13	2.1	11.7	82	100	0.13	4.1	1.5	0	0.79	3.3	West edge of 2700 Road
C29	Pond 015	-	-	-	100	-	2.85	2.0	4	0.58	2.39	Attachment 2.05.3(3)-33
C33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Replaced with straw wattles, see Section 5

Ditch C4A

See Pond 018 design in Attachment 2.05.3(3)-28 for ditch design

Ditch Pond 018 East Ditch

See Pond 018 design in Attachment 2.05.3(3)-28 for ditch design

Ditch C5

See Pond 016 design in Attachment 2.05.3(3)-29 for ditch design

Tailwater Ditch 0 to 11

See Pond 016 design in Attachment 2.05.3(3)-29 for ditch design

Tailwater Ditch 11 to 20

See Pond 016 design in Attachment 2.05.3(3)-29 for ditch design

Tailwater Ditch 20 to 34

See Pond 016 design in Attachment 2.05.3(3)-29 for ditch design

Ditch C7

See Pond 012 design in Attachment 2.05.3(3)-31 for ditch design

Ditch C8

See Pond 012 design in Attachment 2.05.3(3)-31 for ditch design

Ditch C9

See Pond 013 design in Attachment 2.05.3(3)-32 for ditch design

Ditch C15

See Table 2.05.3(3)-1 above.

Ditch C23

See Table 2.05.3(3)-1 above.

Table 2.05.3(3)-2 Permit Area Culvert Designs								
Structure	Watershed Area (acres)	Runoff Curve No.	Design Event	Peak Flow (cfs)	Pipe Diameter (inches)	Design Flow (cfs)	Culvert Length (feet)	Comments
C138*	34.8	63	100 yr-24 hr	8.5	18	8.5**	60	Crossing carries peak flow entering San Miguel Draw to Pond 007
C155	Tailwater Ditch	-	-	-	2 x 6	-	400	HDPE pipes will be removed and flow from Tailwater Ditch will be routed to Pond 016 after it is constructed.
C175	8.9	73	10 yr-24 hr	2.8	24	18.1	60	Carries flow from IP Reference Area to Calamity Draw
C176	Pond 018	-	-	-	18	-	90	Carries peak flow from East Ditch into Pond 018. See Attachment 2.05.3(3)-28 for design.
C177	Pond 013	-	-	-	18	-	20	Carries peak flow from Ditch C9 into Pond 013. See Attachment 2.05.3(3)-32 for design.
C179	16.3	62	10 yr-24 hr	0.6	16	8.4	140	Carries flow from outside permit under 5 th Street

*The landowner has requested structure be retained as permanent. A copy of the landowner request has been included in this attachment.

**See SEDCAD culvert calculation in this attachment for design details.

Culvert 155

These 2 - 6" HDPE pipes are temporary and will be removed after construction of Pond 016. These pipes convey flow from the Tailwater Ditch which will be routed to Pond 016 after it is constructed. The watershed area for the Tailwater Ditch has been modeled in the Pond 016 design which is included in Attachment 2.05.3(3)-29.

Culvert 157

This 18" CMP near BB Road provides the landowner with a crossing over the irrigation lines which run across the property. Since little drainage from irrigation tailwater flows into this culvert, no design has been shown. The capacity of this 18" culvert is approximately 11.2 cfs, which is well in excess of any drainage that might flow through this culvert.

Culvert 158

This 12" CMP near BB Road serves to protect the irrigation lines which run across the property. Since this culvert lies on the surface and no drainage flows into this pipe, no design has been shown.

the disturbed and reclaimed areas and conveys surface runoff to an approved sediment control structure (Pond 013).

Pond 012

A portion of Pond 012, the embankment, pool area, and associated outfall was constructed inside the stream buffer zone for Tuttle Draw. During construction and to date, this has not created any adverse impacts to Tuttle Draw. The embankment and areas directly adjacent to the pond are very well vegetated and do not exhibit any visual impacts from the presence of the pond and associated structures inside the stream buffer zone. In accordance with Rule 4.05.18, the pond location within the buffer zone has not caused or contributed to a violation of applicable water quality standards. As built, the pond is capturing all surface water runoff from mining operations and discharging them through an approved outfall location which is in compliance with New Horizon's mine current water quality discharge permit. Moreover, during and after mining, the Pond 012 location will not impact water quantity or quality as it will be removed post mining and reclaimed. Finally, Pond 012 does not create a temporary or permanent stream channel diversion.

Portable Pump

A portable wheel mounted water pump will be placed in various locations within the stream buffer zone for Tuttle Draw to pump water ERMR's decreed water rights from Tuttle Draw. Impacts to the stream buffer zone will not occur as the pump will be moved in and out of the stream buffer zone during dry conditions, and the pump will have secondary containment placed under it to capture any leaks or spills that may occur while the pump is located within the stream buffer zone. The pump will only be placed in the stream buffer zone when necessary to exercise valid existing water rights, and will be removed as soon as practical when it is not needed.

Enstrom Draw

Pond 015

A portion of Pond 015 and the embankment was constructed inside the stream buffer zone for Enstrom Draw. During construction and to date, this has not created any adverse impacts to Enstrom Draw. The pond embankment and areas directly adjacent to the pond have been vegetated and do not exhibit any visual impacts from the presence of the pond and associated structures inside the stream buffer zone. In accordance with Rule 4.05.18, the pond location within the buffer zone has not caused or contributed to a violation of applicable water quality standards. As built, the pond is capturing all surface water runoff from disturbed areas. Likewise, during and after mining, the Pond 015 location will not impact water quantity or quality as it will be removed post mining and reclaimed. Finally, Pond 015 does not create a temporary or permanent stream channel diversion.

Ditch C-29

Multiple portions of Ditch C-29 were constructed inside the stream buffer zone for Enstrom Draw. During construction and to date, this has not created any adverse impacts to Enstrom Draw. As constructed, Ditch C-29 functions as a collection ditch which captures surface water runoff from the disturbed and reclaimed areas and conveys surface runoff to an approved sediment control structure (Pond 015).