



REPORT

# Coal Combustion Residuals Landfill 2025 Inspection

## *Nucla Station Ash Disposal Facility*

Submitted to:

**Tri-State Generation and Transmission Association, Inc.**  
1100 W 116th Avenue, Westminster, Colorado, USA 80234

Submitted by:

**WSP USA Inc.**  
7245 W Alaska Drive, Suite 200, Lakewood, Colorado, USA 80226

+1 303 980 0540

31403149.2403-002-RPT-0

December 15, 2025



# Table of Contents

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Background .....	1
1.2	Facility Description .....	1
<b>2.0</b>	<b>REVIEW OF AVAILABLE INFORMATION .....</b>	<b>2</b>
2.1	Information Reviewed .....	2
2.2	Changes in Facility Geometry .....	3
2.3	Ash Volume Contained in the Facility .....	3
2.4	Changes Affecting Stability .....	3
<b>3.0</b>	<b>VISUAL OBSERVATION .....</b>	<b>3</b>
3.1	Overview .....	3
3.2	Visual Observation Terminology .....	3
3.3	Findings .....	4
3.3.1	Top Surface .....	4
3.3.2	Embankment Crest .....	5
3.3.3	Embankment Slopes .....	5
3.3.4	Embankment Toe .....	9
3.3.5	Stormwater Control Features .....	10
<b>4.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>13</b>
<b>5.0</b>	<b>REFERENCES .....</b>	<b>15</b>

**PHOTOGRAPHS**

Photograph 1: Typical Condition of the Top Surface.....	4
Photograph 2: Typical Condition of the Embankment Crest .....	5
Photograph 3: Crack in an East-facing Side Slope Terrace Channel .....	6
Photograph 4: Typical Condition of the South Embankment Slope .....	7
Photograph 5: Typical Condition of the West, North, and East Embankment Slopes .....	8
Photograph 6: Typical Condition of the Embankment Toe.....	9
Photograph 7: Typical Condition of Perimeter Channels .....	10
Photograph 8: Downchute Channel Erosion .....	11
Photograph 9: Typical Condition of Terrace Channels.....	12
Photograph 10: Culvert Outlets .....	13

**APPENDICES****Appendix A**  
Inspection Form

## 1.0 INTRODUCTION

### 1.1 Background

WSP USA Inc. (WSP) has prepared this inspection report for Tri-State Generation and Transmission Association, Inc. (Tri-State) to summarize our review of available information and visual observation of the Nucla Station Ash Disposal Facility (the facility). The facility served as the location for final deposition of coal combustion residuals (CCRs) generated at Tri-State's Nucla Station beginning in 1987. Nucla Station was retired in 2019.

The facility classifies as an existing CCR landfill under 40 CFR 257. The facility was closed in 2022, and a notification of closure completion was placed in the facility's operating record on June 22, 2022.

The annual inspections described in 40 CFR 257.84(b) are listed under the operating criteria for CCR landfills and are interpreted to be required only for operating (not closed) CCR landfills; inspection of closed CCR landfills is to be conducted in accordance with the post-closure plan that is being implemented under 40 CFR 257.104 (Golder 2016b). Notwithstanding this interpretation, WSP's review of available information and visual observation was completed in a manner consistent with 40 CFR 257.84(b)(1) for the purpose of verifying that the design, construction, and maintenance of the facility are aligned with recognized and generally accepted good engineering practice. The visual observation by WSP's representative, Brendan Purcell, PE, took place on November 11, 2025.

This report presents a description of the facility (Section 1.0), a summary of WSP's review of available information about the facility (Section 2.0), the findings from WSP's visual observation of the facility (Section 3.0), and WSP's conclusions and recommendations (Section 4.0).

### 1.2 Facility Description

The facility is located in Montrose County, approximately 5.5 miles southeast of Nucla, Colorado. Tri-State historically disposed fly ash, bottom ash, and other permitted non-hazardous utility-related wastes<sup>1</sup> at the facility. The Colorado Department of Public Health and Environment (CDPHE) and the Montrose County Board of Commissioners originally approved construction of the facility on a 40-acre parcel (the North 40) in October 1987. Pursuant to a March 2002 application submittal, Tri-State expanded the facility laterally onto an adjacent 40-acre parcel (the South 40) under a Certificate of Designation granted by Montrose County in April 2004 and a Special Use Permit via Notice of Decision dated July 2005. Filling began in the expansion area in 2006. The final disposal footprint encompasses approximately 61 acres. The facility is regulated by CDPHE under 6 CCR 1007-2 Part 1, "Regulations Pertaining to Solid Waste Sites and Facilities."

Disposal of ash at the facility initially occurred behind starter dikes that encompassed the deposition area. Over time, the height of the facility was increased gradually as needed to contain the ash being generated. The height was increased with containment berms that were periodically constructed around the perimeter of the facility. Each individual containment berm was constructed atop and slightly inside of the previous containment berm to form the embankment slopes. At approximate 20-foot vertical intervals, the containment berms were inwardly offset an additional 10 feet to establish benches with terrace channels for stormwater management. The resulting composite slope is approximately 3 horizontal to 1 vertical, with the slope between benches approximately

---

<sup>1</sup> For simplicity, the term "ash," where used in this document, encompasses all permitted wastes.

2.5 horizontal to 1 vertical. The containment berms were constructed with a sufficient thickness of suitable soil and appropriately vegetated so that they also serve as the final cover system on the embankment slopes.

The facility received the known final receipt of waste by December 31, 2021. In 2022, a final cover system meeting the requirements of the closure plan (Golder 2022a) was constructed over the 18 acres of the facility that had yet to be closed as of that date.

## **2.0 REVIEW OF AVAILABLE INFORMATION**

### **2.1 Information Reviewed**

The inspection included a review of information pertaining to the status and condition of the facility, including files that are available in the operating record. WSP has reviewed information provided by Tri-State to verify that the design, construction, and maintenance of the facility are consistent with recognized and generally accepted good engineering practice. The information WSP has reviewed includes the following:

- the engineering design and operations report for ash disposal on the initial 40-acre parcel (Colorado-Ute Electric Association, Inc. 1987)
- the hydrogeologic investigation report for ash disposal on the initial 40-acre parcel (Western Colorado Testing, Inc. and J.F.T. Agapito & Associates, Inc. 1987)
- the design and operations report for ash disposal on the 40-acre lateral expansion parcel (Geo-Trans Inc. 2002) and addenda thereto (Golder 2017b)
- the fugitive dust control plan for the facility (Golder 2015)
- previous inspection reports for the facility by a qualified professional engineer (Golder 2016a, 2017a, 2018a,b, 2019, 2020, 2021a, 2022c; WSP 2023, 2024)
- the run-on and run-off control system plan for the facility (Golder 2021b)
- the closure plan for the facility (Golder 2022a)
- the notification of intent to close the facility (Tri-State 2022a)
- the notification of final cover completion for the facility (Tri-State 2022b) and accompanying closure certification (Golder 2022b)
- the notification of recording of notice of obligation for the facility (Tri-State 2022c)
- the post-closure plan for the facility (Golder 2016b)
- monthly inspection forms documenting inspections conducted by qualified persons employed by Tri-State between December 5, 2024, and October 2, 2025

The monthly inspection forms provided valuable information regarding the status and condition of the facility since the previous inspection by a qualified professional engineer, as well as the repair and maintenance activities that were completed. The thoroughness of the monthly inspection documentation was found to be exceptional.

## 2.2 Changes in Facility Geometry

No changes in facility geometry have occurred since the previous inspection by a qualified professional engineer. However, the south embankment slopes were reseeded. WSP understands that seeding of the south embankment slope occurs annually while vegetation is being established.

## 2.3 Ash Volume Contained in the Facility

The volume of ash contained in the facility at closure was estimated as 4,750,000 cubic yards (Golder 2022c).

## 2.4 Changes Affecting Stability

WSP's review of the monthly inspection forms completed between December 5, 2024, and October 2, 2025, indicates that changes that may have affected the stability of the facility were not identified during the monthly inspections. Localized cracking along a terrace channel was observed during the October 2025 monthly inspection (refer to Section 3.3.3). The inspection forms indicate that minor issues, such as erosion rills, are being addressed proactively. A large storm in early October 2025 caused damage to various stormwater structures which require repair (refer to Section 3.3.5). Indications of changes that may have affected the stability of the facility were not identified during WSP's visual observation on November 11, 2025 (refer to Section 3.0).

# 3.0 VISUAL OBSERVATION

## 3.1 Overview

The inspection included a visual observation of the facility that was intended to identify signs of distress or malfunction, appearances of structural weakness, or existing conditions that are disrupting or have the potential to disrupt the maintenance and safety of the facility, if present. The findings of the visual observation are described in this section.

## 3.2 Visual Observation Terminology

Terms used in this section are defined as follows:

### Condition of Facility Component

Good:	A condition that is generally better than the minimum expected condition based on the design criteria and maintenance performed at the facility.
Fair:	A condition that is generally consistent with the minimum expected condition based on the design criteria and maintenance performed at the facility.
Poor:	A condition that is generally worse than the minimum expected condition based on the design criteria and maintenance performed at the facility.

### Severity of Deficiency

Minor:	An observed deficiency where the current condition is worse than the minimum expected condition but does not currently pose a threat to structural stability.
Significant:	An observed deficiency where the current condition is worse than the minimum expected condition and could pose a threat to structural stability if it is not addressed.
Excessive:	An observed deficiency where the current condition is worse than the minimum expected condition and either hinders the ability of an inspector to evaluate the facility component or poses a threat to structural stability.

### 3.3 Findings

WSP conducted a visual observation of the facility on November 11, 2025. WSP observed the condition of the top surface, embankment slopes, embankment crest, embankment toe, and stormwater control features. The inspection form is included in Appendix A. The locations and orientations of photographs presented in this section are shown on the inspection form.

#### 3.3.1 Top Surface

The top surface was observed to be in good condition. Signs of ground movement, such as sloughing or sliding, cracking, subsidence, or bulging, were not observed across the top surface. The top surface was appropriately graded so that stormwater will be routed away from the facility to the designated locations.

Vegetation has been established across the top surface following completion of closure activities in 2022. Vegetation was generally observed to be in fair to poor condition across the top surface of the facility, with areas of relatively sparse vegetative growth. Halogeton was observed on the top surface and is generally considered to be an undesirable plant species. The typical condition of the top surface is depicted in Photograph 1.



**Photograph 1: Typical Condition of the Top Surface**

### 3.3.2 Embankment Crest

The embankment crest was observed to be in good condition. Cracking that would be indicative of ground movement was not observed along the embankment crest. Low areas that would be indicative of differential settlement were not observed along the embankment crest. The typical condition of the embankment crest is depicted in Photograph 2.



**Photograph 2: Typical Condition of the Embankment Crest**

### 3.3.3 Embankment Slopes

The embankment slopes were observed to be in fair to good condition. A crack was observed within a terrace channel on the eastern side slope, upslope from the nearby stormwater outfall. The crack was observed to be approximately 8 feet long and approximately 2 inches wide and was generally parallel to the terrace channel approximately 4 feet from the crest of the adjacent slope, as depicted in Photograph 3. The depth of the crack could not be visually ascertained. The adjacent side slope was carefully inspected, and no further signs of movement or structural instability were observed. The surficial soil should be excavated along the length of the crack, to a depth at least as deep as the crack, and replaced with competent fill material to prevent exacerbation by water intrusion. Periodic observation in this area should continue in order to identify potential signs of structural instability, should they occur.



**Photograph 3: Crack in an East-facing Side Slope Terrace Channel**

Signs of ground movement, such as sloughing or sliding, cracking, subsidence, or bulging, were not observed on any other embankment slopes. Evidence of excessive erosion or slope deterioration was not observed on the embankment slopes. Fair to good native vegetation has been established on the embankment slopes, with the exception of the south embankment slope, which had sparse vegetative cover. The south embankment slope was roughened in 2023 to create an undulating surface and had recently been reseeded at the time of the visual observation. Vegetation was observed within some of the undulations across the south embankment slope, but

overall vegetative cover on the south embankment slope is characterized as poor. The west, north, and east embankment slopes generally had fair vegetative coverage at the time of the visual observation. Unusually poor or thriving vegetative growth was not observed on these embankment slopes. The typical condition of the south embankment slope is depicted in Photograph 4. The typical condition of the west, north, and east embankment slopes is depicted in Photograph 5.



**Photograph 4: Typical Condition of the South Embankment Slope**



**Photograph 5: Typical Condition of the West, North, and East Embankment Slopes**

### 3.3.4 Embankment Toe

The embankment toe was observed to be in good condition. Signs of seepage, such as springs or boggy areas, were not observed along the embankment toe. The typical condition of the embankment toe is depicted in Photograph 6.



**Photograph 6: Typical Condition of the Embankment Toe**

### 3.3.5 Stormwater Control Features

The stormwater control features at the facility were observed to be in fair to poor condition. Downchute channels and energy dissipation basins at the facility are constructed with riprap. Terrace channels at the facility are provided at approximate 20-foot vertical intervals. Erosion control wattles have been installed to control erosion and capture sediment in the terrace channels at appropriate intervals. A few animal burrows were observed within terrace channels where indicated in Appendix A. The animal burrows do not currently pose a threat to structural stability and did not hinder WSP's ability to inspect the facility. Perimeter channels are in place around the facility where they are needed to control stormwater. Perimeter channels at the facility are generally constructed with soil and rock. Erosion control wattles have been installed at appropriate intervals in the perimeter channels to control erosion and capture sediment. The typical condition of the perimeter channels is depicted in Photograph 7.



**Photograph 7: Typical Condition of Perimeter Channels**

Between October 9 and October 12, 2025, the facility received approximately 2.3 inches of precipitation, as recorded by the on-site weather station. Stormwater runoff from the large precipitation event damaged several of the riprap-lined downchutes at the facility, as noted in Appendix A. Damage was typically located on the downstream sections of the downchutes and consisted of washed-out riprap, exposed geotextile, and eroded subgrade. Damaged downchutes should be restored to their previous conditions. Tri-State may also consider installing larger-diameter riprap at a few of the localized downchute segments that experienced significant erosion. The most severely damaged downchute is depicted in Photograph 8.



**Photograph 8: Downchute Channel Erosion**

Minor sediment buildup was observed in many of the terrace channels. The amount of sediment buildup observed is not anticipated to impact the ability of the terrace channels to convey stormwater. Tri-State may consider proactively removing sediment from these terrace channels to promote drainage and reduce impacts on future stormwater routing. The typical condition of the terrace channels is depicted in Photograph 9.



**Photograph 9: Typical Condition of Terrace Channels**

Culverts near the site entrance were inspected. The culverts were generally observed to be in good condition. Sediment buildup was not observed within the culverts, but the culverts should be periodically cleaned out if sediment is observed during monthly inspections. Straw wattles in the channels upstream of the culverts were observed to be in good condition. The culvert outlets are depicted in Photograph 10.



**Photograph 10: Culvert Outlets**

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

WSP completed an inspection of the Nucla Station Ash Disposal Facility, including a visual observation conducted on November 11, 2025. The facility was observed to be in good condition overall. Signs of distress or malfunction of the facility were not observed, appearances of actual or potential structural weakness of the facility were not identified, and existing conditions that are disrupting or have the potential to disrupt the maintenance and safety of the facility were not observed. Repairs to the crack observed in a terrace channel on the east side slope and repairs to the damaged downchutes should be completed. Current facility maintenance practices such as control of burrowing animals, monitoring and maintenance of embankment slopes, establishment of suitable vegetation on embankment slopes, and use of appropriate erosion control measures should continue, with repairs or improvements made as needed when identified by periodic inspections.

## Signature Page

**WSP USA Inc.**



Brendan Purcell, PE  
*Senior Consultant, Civil Engineer*



Jason Obermeyer, PE  
*Vice President, Geotechnical Engineer*

BJP/JEO/af

[https://wsponlinenam.sharepoint.com/:w/r/Sites/US-TirStateGroundwater/Shared%20Documents/Project%20Files/Nucla%20CCR/2025%20Nucla%20CCR/6\\_Deliverables/002-RPT-2025\\_Nucla\\_Inspection\\_Report/Rev0/31403149.2403-002-RPT-0-2025\\_Inspection\\_Report\\_15DEC25.docx](https://wsponlinenam.sharepoint.com/:w/r/Sites/US-TirStateGroundwater/Shared%20Documents/Project%20Files/Nucla%20CCR/2025%20Nucla%20CCR/6_Deliverables/002-RPT-2025_Nucla_Inspection_Report/Rev0/31403149.2403-002-RPT-0-2025_Inspection_Report_15DEC25.docx)

## 5.0 REFERENCES

Colorado-Ute Electric Association, Inc. 1987. Nucla Station Fly Ash, Bottom Ash, Slag and Flue Gas Emission Control Waste Disposal Facility Engineering Design and Operations Report. Report prepared for the Colorado Department of Health. February 6.

Geo-Trans Inc. 2022b. Design and Operations Report, Nucla, Colorado, Ash Disposal Facility. Report prepared on behalf of Tri-State Generation and Transmission Association, Inc., for the Colorado Department of Public Health and Environment. March 21.

Golder (Golder Associates Inc.). 2015. Nucla Generating Station Coal Combustion Residuals Fugitive Dust Control Plan. Plan prepared for Tri-State Generation and Transmission Association, Inc. October.

Golder. 2016a. Coal Combustion Residuals Landfill Annual Inspection Report, Nucla Station Ash Disposal Site. Report prepared for Tri-State Generation and Transmission Association, Inc. January 18.

Golder. 2016b. Nucla Station Ash Disposal Facility Post-Closure Plan. Plan prepared for Tri-State Generation and Transmission Association, Inc. October.

Golder. 2017a. Coal Combustion Residuals Landfill Annual Inspection Report, Nucla Station Ash Disposal Site. Report prepared for Tri-State Generation and Transmission Association, Inc. January 16.

Golder. 2017b. Design & Operations Report Addenda, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. April.

Golder. 2018a. Coal Combustion Residuals Landfill Annual Inspection Report, Nucla Station Ash Disposal Site. Report prepared for Tri-State Generation and Transmission Association, Inc. January 12.

Golder. 2018b. Coal Combustion Residuals Landfill Annual Inspection, Nucla Station Ash Disposal Site. Report prepared for Tri-State Generation and Transmission Association, Inc. December 21.

Golder. 2019. Coal Combustion Residuals Landfill Annual Inspection, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. December 20.

Golder. 2020. Coal Combustion Residuals Landfill Annual Inspection, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. December 18.

Golder. 2021a. Coal Combustion Residuals Landfill Annual Inspection, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. December 17.

Golder. 2021b. Run-On and Runoff Control System Plan, Nucla Station Ash Disposal Facility. Plan prepared for Tri-State Generation and Transmission Association, Inc. October 15.

Golder. 2022a. Closure Plan, Nucla Station Ash Disposal Facility. Plan prepared for Tri-State Generation and Transmission Association, Inc. February 23.

Golder. 2022b. Closure Certification, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. June 20.

Golder. 2022c. Coal Combustion Residuals Landfill Annual Inspection, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. December 16.

Tri-State (Tri-State Generation and Transmission Association, Inc.). 2022a. Notification of Intent to Close CCR Unit, Nucla Station Ash Disposal Facility. January 28.

Tri-State. 2022b. Notification of Final Cover Completion, Nucla Station Ash Disposal Facility. June 22.

Tri-State. 2022c. Notification of Recording of Notice of Obligation in Lieu of CCR Deed Notation, Nucla Station Ash Disposal Facility. June 22.

Western Colorado Testing, Inc., and J.F.T. Agapito & Associates, Inc. 1987. Geological and Geohydrological Evaluation of Dry Storage Site, Nucla CFB Demonstration Project. Report prepared on behalf of Colorado-Ute Electric Association, Inc., for the Colorado Department of Health. July 8.

WSP (WSP USA Inc.). 2023. Coal Combustion Residuals Landfill Inspection, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. December 15.

WSP. 2024. Coal Combustion Residuals Landfill 2024 Annual Inspection, Nucla Station Ash Disposal Facility. Report prepared for Tri-State Generation and Transmission Association, Inc. December 13.

**APPENDIX A**

**Inspection Form**



**TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION**  
**NUCLA STATION ASH DISPOSAL FACILITY**  
**INSPECTION FORM**

<b>Inspection Date:</b> November 11, 2025	<b>Inspection Time:</b> 9:30am-12:30pm	<b>Legend:</b>	<b>Y</b>	<b>Yes</b>
<b>Inspector(s):</b> Brendan Purcell, PE	<b>Title(s):</b> Senior Consultant		<b>N</b>	<b>No</b>
<b>Reviewer:</b> Jason Obermeyer, PE	<b>Title:</b> Vice President		<b>NI</b>	<b>Not inspected</b>

*Instructions: Complete each part of the inspection form. Indicate areas of concern on the plan view on page 3. Elaborate on deficiencies in Section J.*

#### **A. Previous Open Items**

1. List open items from the previous inspection form (Section I.) and indicate whether or not the open items have been addressed:

a.	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If N and/or RA, please elaborate.
b.	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If N and/or RA, please elaborate.
c.	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If N and/or RA, please elaborate.

#### **B. Atmospheric Conditions**

1. Briefly describe precipitation conditions (rainy, dry, snowy) or notable precipitation events over the last five days: None

2. Briefly describe wind (calm, breezy, windy, gusty) and weather (cold, warm, cloudy, sunny) conditions during the inspection: Calm, sunny

#### **C. Facility Access**

1. Are facility access roads in good condition?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If N and/or RA, please elaborate.
2. Are facility access controls (signage, fencing, gates) in good condition?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If N and/or RA, please elaborate.
3. Do you observe signs of unauthorized access or disposal?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.

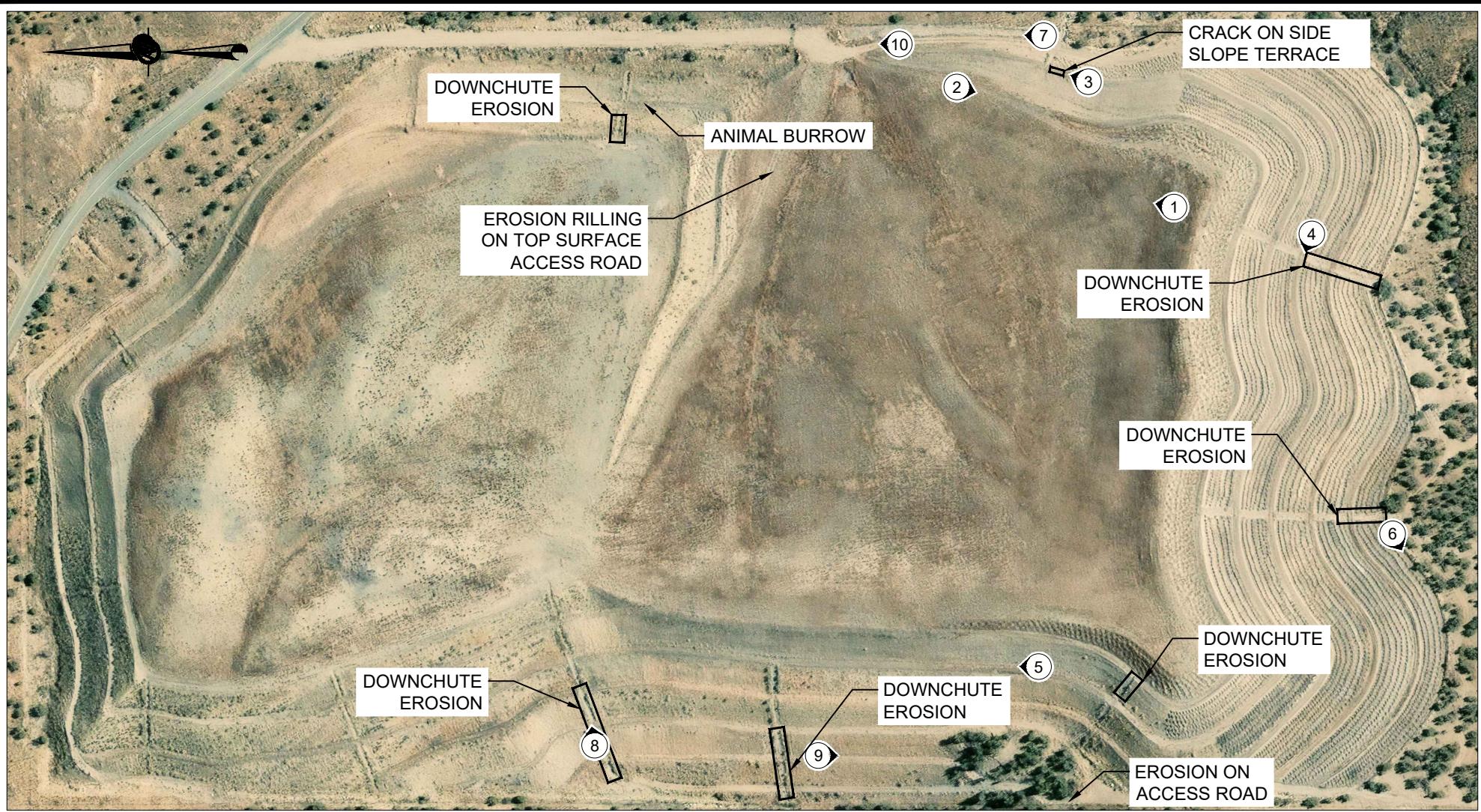
#### **D. Top Surface**

1. Do you observe signs of ground movement on the top surface? If Y, circle those that apply: Slough or Slide Cracking Subsidence Bulging	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.
2. Do you observe ponding on the top surface?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.
3. Do you observe signs of excessive erosion on the top surface?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.
4. Do you observe inadequate, unwanted, or unusual (thriving or poor) vegetative growth?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.
5. Do you observe animal burrows on the top surface?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.

#### **E. Embankment Crests**

1. Do you observe cracks along the embankment crest?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.
2. Do you observe differential settlement (low areas) along the embankment crest?	<b>Y</b>	<b>N</b>	<b>NI</b>	<b>NA</b>	<b>RA</b>	If Y and/or RA, please elaborate.

<b>F. Embankment Slopes</b>						
1. Briefly describe ground conditions (wet, dry, soft, firm). North: Dry, firm	East: Dry, firm		South: Dry, loose		West: Dry, firm	
2. Do you observe signs of movement or instability on the embankment slopes? If Y, circle those that apply: Slough or Slide Cracking Subsidence Bulging	Y	N	NI	NA	RA	If Y and/or RA, please elaborate.
3. Do you observe signs of excessive erosion or slope deterioration?	Y	N	NI	NA	RA	If Y and/or RA, please elaborate.
4. Do you observe inadequate, unwanted, or unusual (thriving or poor) vegetative growth?	Y	N	NI	NA	RA	If Y and/or RA, please elaborate.
5. Do you observe animal burrows on the embankment slopes?	Y	N	NI	NA	RA	If Y and/or RA, please elaborate.
<b>G. Embankment Toes</b>						
1. Do you observe signs of seepage (springs or boggy areas) at the embankment toe?	Y	N	NI	NA	RA	If Y and/or RA, please elaborate.
<b>H. Stormwater Control Features</b>						
1. Are rundowns (downchute channels) and energy dissipation features in good condition?	Y	N	NI	NA	RA	If N and/or RA, please elaborate.
2. Are terrace channels in good condition and providing positive drainage toward rundowns?	Y	N	NI	NA	RA	If N and/or RA, please elaborate.
3. Are culverts (including inlet and outlet areas) in good condition?	Y	N	NI	NA	RA	If N and/or RA, please elaborate.
4. Are perimeter channels and stormwater outfalls in good condition?	Y	N	NI	NA	RA	If N and/or RA, please elaborate.
<b>I. Open Items</b>						
1. List unresolved items from the previous inspection (RA in Section A.) and new items identified during the current inspection (RA in Sections B. through H.):						
a. F.2. Cracking was observed along the terrace channel above Outfall 07. A single crack was observed. The crack was approximately 8 feet long by 2 inches wide, with an unknown depth. No signs of slope movement or other concerns were observed in the surrounding area. The surficial soil should be excavated along the length of the crack, to a depth at least as deep as the crack, and replaced with competent fill material.						
b. H.1. Significant erosion and exposed subgrade and/or geotextile was noted in multiple downchutes. These downchutes should be repaired. Tri-State may consider placing larger, angular riprap in some of these locations to more effectively limit future erosion from large precipitation events.						
c.						
d.						
e.						
<b>J. Elaboration</b>						
<i>Identify the specific item number (for instance, F.2.) and elaborate on each deficiency or issue identified during the inspection. Attach documentation (photographs or sketches) if practical.</i>						
C.1. Erosion was identified along the access road near the southwest corner of the landfill and along the top surface access road (see page 3). Erosion repairs may be made as necessary to facilitate site access.						
D.4. Vegetation growth on the top surface was poor. Halogeton was identified in some areas on the top surface.						
F.2. Cracking was observed along a terrace channel (see page 3). See Section I for further discussion.						
F.4. Poor vegetative growth was observed on the south embankment slope.						
F.5. Small animal burrows were observed in one location within a terrace channel (see page 3).						
H.1. Erosion was observed within multiple downchutes, primarily on the south and west sides of the facility. See Section I for further discussion.						



① PHOTOGRAPH LOCATION AND DIRECTION

**WSP**

**INSPECTION FORM**  
**TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION**  
**NUCLA STATION ASH DISPOSAL FACILITY**



wsp.com