

**2023 ANNUAL RESIDUAL SOLID WASTE LANDFILL INSPECTION  
REPORT**

**Prepared for:**

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**CEC Project 196-318 Task 1132**

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**Civil & Environmental Consultants, Inc.**

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**FIGURE**

Figure 1 – Site Layout and Photograph Plan

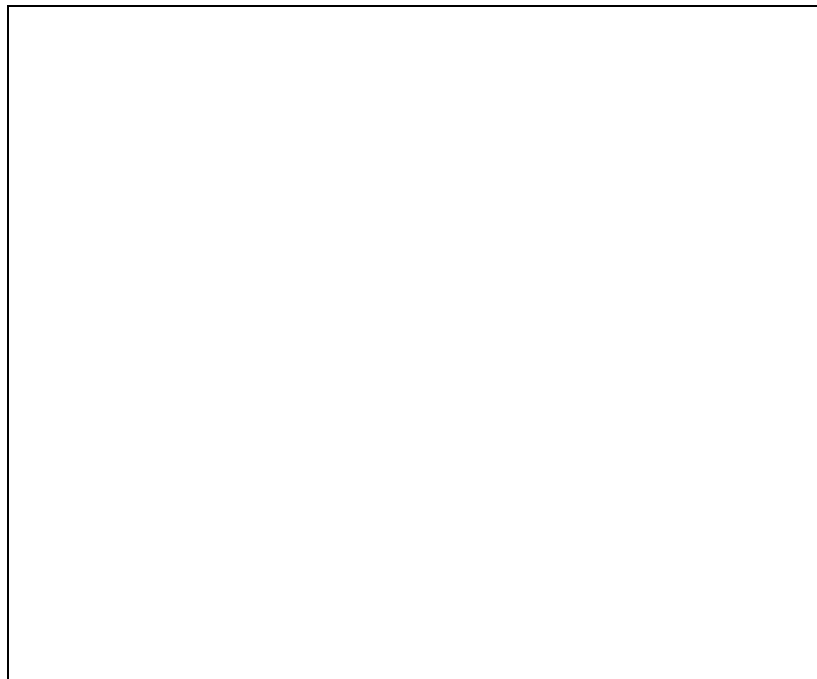
**APPENDICES**

- Appendix A –Landfill Inspection Checklist
- Appendix B – Recent Weather History
- Appendix C – Photographs

## ENGINEER'S VERIFICATION STATEMENT

I hereby verify that the 2023 Annual Landfill Inspection was conducted for the Conesville Residual Solid Waste (RSW) Landfill and its appurtenances owned by Conesville Industrial Park, LLC (CIP) as required by Title 40, Chapter I, Part 257.84 (b) of the Code of Federal Regulations (CFR). The attached inspection report documents the following:

- 1) A review of available operations and site data;
- 2) Observed and inspected the site on December 7, 2023;
- 3) Observations noted during the site reconnaissance; and,
- 4) Developed remedial actions and maintenance recommendations.



John B. Gronnett IV, P.E.  
Civil & Environmental Consultants, Inc.

## 1.0 INTRODUCTION

The Conesville Residual Solid Waste Landfill, referenced herein as the SR 83 Landfill, was previously owned and operated by American Electric Power (AEP), and as of June 2020 has been transferred to Conesville Industrial Park, LLC (CIP). CIP continues to operate the landfill until reaching capacity, and will then close the landfill. The landfill is regulated by the Ohio Environmental Protection Agency (OEPA) under Solid Waste Permit No. 06-07748. The landfill is located just east of State Route (SR) 83, about 2 miles east of the now decommissioned Conesville Power Generation Plant in Coschocton County, Ohio. The original landfill boundary comprises about 52 acres. In 1992, an expansion of about 47 acres was approved. Additionally, two separate vertical expansions were approved in 2006 and 2010. To date, a majority of the landfill area has been filled to design grades and capped with the final cover system, with approximately 20 acres still active. The active area is generally located in the northern portion of the landfill.

In accordance with Title 40, Chapter I, Part 257.84 (b) of the Code of Federal Regulations (CFR), Civil & Environmental Consultants, Inc. (CEC) performed an annual inspection of the SR 83 Landfill. The inspection was performed by a qualified professional engineer<sup>(1)</sup>. This inspection included a review of available design/operational data and a reconnaissance of the inactive/active areas of the landfill. The reconnaissance was performed on December 7, 2023, by Mr. John B. Gronnett IV, P.E. of CEC. Mr. Gronnett visually observed the condition of the various landfill engineering components and systems in order to evaluate whether the design, construction, operation, and maintenance of the landfill is consistent with the design plans, the OEPA permit, and recognized or generally accepted engineering standards. CEC performed these visual observations to identify the presence of deficiencies, and the need for remedial actions or maintenance activities. Where applicable, CEC has provided recommended remedial actions and maintenance activities (refer to Section 4.1).

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<sup>(1)</sup> An Engineer's inspection does not constitute a warranty or guarantee expressed or implied, nor does it relieve any other party of their responsibility to abide by contract documents, applicable codes, standards, regulations, or ordinances.

## 2.0 REVIEW OF AVAILABLE OPERATIONS INFORMATION

This 2023 Annual SR 83 Landfill Inspection included a review of available operational data. This included a review of Coal Combustion Residuals (CCR) tonnages placed in the landfill since the last Landfill Inspection, recent topographic data, 7- and 28-day inspection reports, and the status of previously recommended remedial and maintenance activities within the 2022 Annual SR 83 Landfill Inspection Report. A summary of the data reviewed is included in the following subsections.

### 2.1 CCR PLACED IN THE LANDFILL

Based on a review of available topographic data and communications with site operations personnel, no significant changes to the geometry (including changes to the landfill footprint or slopes inclination) were noted for the landfill when compared to the geometry for most recent annual landfill inspection.

CCR material stored at the Conesville Power Generation Plant (within the Ash Pond Complex) was transported to the active area at the SR 83 Landfill for disposal, with disposal quantities tracked on a daily basis. The 2022 Annual SR 83 Landfill Inspection Report provided disposal data through November 2022. This report provides the monthly disposal quantities (in tons) from December 2022 to December 2023 as summarized in the following table.

| <b>Estimated CCR Disposal Quantities to Landfill Since Last Annual Inspection (tons)</b> |                |                   |                  |
|--|----------------|-------------------|------------------|
| <b>Month</b>   | <b>FGD</b>     | <b>Ponded Ash</b> | <b>Combined</b>  |
| December 2022  | 9,170          | 0                 | 9,170            |
| January 2023   | 1,610          | 0                 | 1,610            |
| February 2023  | 720            | 9,025             | 9,745            |
| March 2023   | 23,870         | 760               | 24,630           |
| April 2023   | 15,260         | 120,795           | 136,055          |
| May 2023   | 32,760         | 99,585            | 132,345          |
| June 2023  | 25,700         | 122,375           | 148,075          |
| July 2023  | 19,770         | 85,030            | 104,800          |
| August 2023  | 9,870          | 119,530           | 129,400          |
| September 2023   | 25,790         | 62,805            | 88,595           |
| October 2023   | 17,810         | 159,870           | 177,680          |
| November 2023  | 18,760         | 117,720           | 136,480          |
| December 2023  | 0              | 25,260            | 25,260           |
| <b>TOTAL</b>   | <b>201,090</b> | <b>922,755</b>    | <b>1,123,845</b> |

The estimated total volume in cubic yards (C.Y.) of CCR material disposed of within the landfill between December 2022 and December 2023 is summarized in the table below:

| <b>Estimated CCR Volume Quantity Added at Landfill (C.Y.)</b> |  |
|---|--|
| <b>Estimated Total Weight added in 2023<br/>(tons)</b>        | <b>Estimated Total Volume added in 2023<sup>(1)</sup><br/>(C.Y.)</b> |
| 1,123,845   | 832,478  |

<sup>(1)</sup> 1,123,845 tons as stated in the “Estimated CCR Disposal Quantities to Landfill since Last Annual Inspection Table.” Using an assumed unit weight of CCR material at 100 lbs / ft<sup>3</sup>. To convert to cubic yards 1,123,845 tons \* (2,000 lbs / 1 ton) \* (1 ft<sup>3</sup> / 100 lbs) \* (1 C.Y. / 27 ft<sup>3</sup>) = 832,478 C.Y.

## 2.2 REVIEW OF 7-DAY INSPECTION REPORTS

The 2023 Annual SR 83 Landfill Inspection included review of the 7-day inspection reports to comply with CCR Rule §257.84. Our review consisted of available 7-day inspection reports between December 2022 and December 2023. The reports were made available in electronic format after our site visit. CEC coordinated with CIP to understand how and when the previously identified issues were addressed. From this review, the following list of issues was identified. The issues are described below in **bold** print, followed by a brief description as to how these issues were addressed.

**ISSUE NO. 1 – December 20, 2022: Erosion along grass lined channel adjacent to access road.**

RESPONSE:

The erosion areas were filled with aggregate on December 20, 2022.

**ISSUE NO. 2 – January 3, 2023 to August 16, 2023: Rock checks need cleaned to prevent ponding water.**

RESPONSE:

The rock checks were cleaned on August 16, 2023 to allow sufficient flow of surface water.

**ISSUE NO. 3 – January 3, 2023 to May 17, 2023: Erosion beside fabriform in northeast portion of landfill.**

RESPONSE:

The erosion was filled in with soil and the disturbed areas were re-seeded on May 17, 2023.

**ISSUE NO. 4 – January 10, 2023 to June 13, 2023: Erosion along first bench above 603 repair.**

RESPONSE:

The erosion in the landfill cover was filled in with soil and the disturbed areas were re-seeded on June 13, 2023.

**ISSUE NO. 5 – January 17, 2023 to October 13, 2023: The 604 vault sediment needs removed.**

RESPONSE:

The accumulated sediment was removed from within the vault on October 13, 2023.

**ISSUE NO. 6 – February 28, 2023 to May 19, 2023: An animal burrow developed near the West Secondary Pond.**

RESPONSE:

The animal burrow was filled on May 19, 2023.

**ISSUE NO. 7 – April 11, 2023 to October 13, 2023: Sediment needs removed from the East Ponds.**

RESPONSE:

The sediment removal was completed on October 13, 2023. Overall, about 925 truck loads (23-ton loads) were removed.

**ISSUE NO. 8 – February 28, 2023 to May 18, 2023: An animal burrow developed near the West Secondary Pond.**

RESPONSE:

The animal burrow was filled on May 18, 2023.

**ISSUE NO. 9 – April 25, 2023: After the 602 leachate line was placed in the new catch basin a hole was found in the pipe near the catch basin.**

RESPONSE:

The hole was patched on April 25, 2023.

**ISSUE NO. 10 – April 25, 2023: Erosion was observed along the access road at the southern portion of the closed landfill.**

RESPONSE:

The erosion was filled in on April 25, 2023.

**ISSUE NO. 11 – May 17, 2023 to May 18, 2023: Erosion was observed at the west detention pond.**



RESPONSE:

The erosion was filled in and re-seeded on May 18, 2023.

**ISSUE NO. 12 – June 1, 2023 to August 18, 2023: Erosion was observed on west side of landfill above third bench.**

RESPONSE:

The erosion was filled in and re-seeded on August 18, 2023.

**ISSUE NO. 13 – November 15, 2023: Rock checks need cleaned.**

RESPONSE:

This item remains outstanding.

**ISSUE NO. 14 – November 22, 2023: Straw bales need replaced.**

RESPONSE:

This item remains outstanding.

**ISSUE NO. 15 – November 29, 2023: Silt fence needs repaired.**

RESPONSE:

This item remains outstanding.

## **2.3 2022 ANNUAL LANDFILL INSPECTION RECOMMENDED REMEDIAL ACTIONS AND MAINTENANCE ACTIVITIES**

Several remedial actions and maintenance recommendations were included in the 2022 Annual SR 83 Landfill Inspection Report. During this annual engineering reconnaissance, described in Section 3.3 of this report, CEC reviewed these recommendations with CIP personnel to discuss how each of the items had been addressed. Below, each of the recommended remedial actions or maintenance activities included in the previous report are presented below in **bold**, followed by the response.

**RECOMMENDATION NO. 1 – The area where stormwater flow from the exterior slope of the active area that is not reaching the fabriform channel near the northeast corner of the active area should be temporary graded to properly promote the stormwater flow to reach the fabriform channel until the final cover has been placed.**

RESPONSE:

The benches within the area were extended to the fabriform channel. In addition, the erosion was filled in, graded and seeded. Silt fence was installed (refer to Photograph No. 1 in Appendix C).

**RECOMMENDATION NO. 2 – CIP should consider installing a temporary pipe at the southwest corner of the active portion of the landfill to direct the surface water to the existing fabriform channel system below. This will help prevent water from overtopping the temporary pit and causing erosion of the uncovered slope.**

RESPONSE:

CIP has not installed a temporary pipe (refer to Photograph No. 26 in Appendix C).

**RECOMMENDATION NO. 3 – The disturbed areas from the new leachate line installation in the inactive area should be re-established with vegetative cover.**

RESPONSE:

Vegetation was established in the disturbed areas (refer to Photograph No. 3 in Appendix C).

**RECOMMENDATION NO. 4 - The un-vegetated section along the northwest side of the northern West Primary Leachate Pond should be re-established with vegetative cover.**

RESPONSE:

The sediment was recently cleaned from the pond inlet (refer to Photograph No. 22 in Appendix C). A minor amount of sediment and sparse vegetation remains along the slope from sediment removal activities.

**RECOMMENDATION NO. 5 - The un-vegetated areas around the pump vaults and along the installed force main lines should be re-established with vegetation.**

RESPONSE:

Vegetation was re-established around the pump vaults and along the force main lines (refer to Photograph No. 8 in Appendix C).

**RECOMMENDATION NO. 6 - The emergency spillway concrete remains in poor condition at the south end of the southern West Primary Leachate Pond. Consideration should be given to replacing the concrete.**

RESPONSE:

The concrete has not been replaced (refer to Photograph No. 20 in Appendix C).

**RECOMMENDATION NO. 7 - Consider dissipating the velocity of the stormwater at the outlet of the temporary stormwater pipe located between the active and closed areas at the eastern side of the landfill in order to prevent the stormwater from overtopping the fabriform channel. This may be accomplished by utilizing a rock dam to slow the water and direct the water to the drains.**

RESPONSE:

CIP has not re-directed the temporary pipe (refer to Photograph No. 4 in Appendix C).

**RECOMMENDATION NO. 8 - The minor amount of debris built up around the stormwater inlets east of the active area should be removed.**

RESPONSE:

The sediment was removed from around the stormwater inlets (refer to Photograph No. 5 in Appendix C).

**RECOMMENDATION NO. 9 - Re-establish vegetation in the area along the grass lined ditch at the base of the western closed portion of the landfill.**

RESPONSE:

The vegetation was re-established (refer to Photograph No. 18 in Appendix C).

**RECOMMENDATION NO. 10 - The sediment buildup in the drainage channel along the base of the slope at the western portion of the active area should be removed. The erosion should be filled in with soil and re-seeded.**

RESPONSE:

The erosion and sediment build up remains in this area (refer to Photograph No. 29 in Appendix C).

**RECOMMENDATION NO. 11 - The sediment buildup and vegetation in the fabriform channel between the inactive and active areas should be removed.**

RESPONSE:

The sediment had been removed and the vegetation cut down in the fabriform channel (refer to Photograph No. 28 in Appendix C).

**RECOMMENDATION NO. 12 - Establish vegetation adjacent to the riprap along the Leachate Line 603 repair area.**

RESPONSE:

Vegetation has been re-established adjacent to the riprap (refer to Photograph No. 6 in Appendix C).

**RECOMMENDATION NO. 13 - The erosion observed along a grass lined bench at the east portion of the closed area near the temporary pipe (Area No. 1), above the fabriform channel at the southern portion of the closed area (Area No. 2), and along the southern access road (Area No. 3) should be filled in with soil and re-seeded. The use of aggregate should not be used as fill soil in areas of the site that require a permanent cover system.**

RESPONSE:

The erosion in Area Nos. 1 and 2 has been filled in with soil and re-seeded (refer to Photograph Nos. 7 and 14 in Appendix C). Area No. 3 remains filled in with aggregate.

**RECOMMENDATION NO. 14 - The woody vegetation observed above the fabriform channel at the southern portion of the closed area should be removed.**

RESPONSE:

The woody vegetation above the fabriform channel was removed (refer to Photograph No. 14 in Appendix C).

### **3.0 SITE RECONNAISSANCE**

As part of the landfill inspection, a site reconnaissance was performed to visually observe and evaluate the various landfill components and operations. Note that our observations were limited to accessible areas of the site and readily observable items at or above the ground surface. A summary of the observations made during the inspection are included in the following subsections.

#### **3.1 DATE AND PERSONNEL PARTICIPATING IN THE SITE RECONNAISSANCE**

The site reconnaissance was performed on December 7, 2023 and included the following personnel:

CIP

- Mike Wisecarver – Landfill Manager (Escort)

CEC

- John B. Gronnett IV, P.E. – Engineer performing the landfill inspection

#### **3.2 WEATHER CONDITIONS DURING AND PRIOR TO THE SITE RECONNAISSANCE**

A calendar showing recent weather history leading up to the December 7, 2023 inspection is included in Appendix B of this report. Rainfall for the 7 days prior to the reconnaissance totaled 0.15 inches. Weather conditions during the reconnaissance were sunny with temperatures ranging from 40° to 48° Fahrenheit.

#### **3.3 SITE RECONNAISSANCE OBSERVATIONS**

As part of the reconnaissance and associated inspection, observations were made and recorded regarding the overall condition and operation of the various landfill components (i.e., permanent and temporary slopes, stormwater collection/conveyance/storage structures, erosion and sediment controls, leachate management system, waste placement, etc.). The site observations were limited

to the areas of the site and structures that could be visually observed at the ground surface, and did not include invasive inspection, investigation or exploration of the site, structures or equipment. A summary of the observations made during the reconnaissance is documented and reported on a Landfill Inspection Checklist contained in Appendix A of this report. A summary of general observations and applicable operational issues noted during the reconnaissance, are described below, and generally separated by area or structure.

### 3.3.1 Active Landfill Disposal Area

#### General Observations:

1. CCR waste was being placed in the active area located at the northern portion of the landfill. The CCR waste was imported from the Ash Pond Complex (refer to Photograph No. 25 in Appendix C). Minimal ponding of water was observed at the time of this visit.
2. In general, the waste in the active disposal area (i.e., area not closed at the time of the inspection) was firm with no obvious signs of scarps, tension cracks, subsidence, sloughs, or seeps.
3. The grading of the CCR waste and temporary berms around the perimeter of the active area direct surface water to the northeast and southwest corners of the active portion of the landfill. The surface water traversing to the northeast is directed into a fabriform channel. A temporary water storage pit has been established at the southwest corner of the active area.
4. The 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> benches at the northeast corner of the active area had been extended to divert stormwater into the fabriform channel in order to minimize the continued erosion adjacent to the fabriform channel. Further, the area below the 1<sup>st</sup> bench, where past erosion had occurred, was filled in, re-graded and re-seeded. Silt fence had also been installed in this area. Refer to Photograph No. 1 in Appendix C.
5. At the southwest corner of the active area, stormwater continues to overtop the temporary excavation for stormwater collection and flow onto the exterior landfill slope. This is causing erosion of the exterior slope that still requires permanent cover (refer to Photograph No. 26 in Appendix C).

#### Operational Issue Noted:

1. Stormwater continues to overtop the temporary excavation for stormwater collection at the southwest corner of the active area, which is causing erosion of the exterior slope that still requires permanent cover (refer to Photograph No. 26 in Appendix C).



### 3.3.2 Inactive Landfill Disposal Area

#### General Observations:

1. No scarps, tension cracks, subsidence, sloughs, or seeps were observed.
2. The fabricform channels appeared to be in good condition with no blockages observed.
3. The vegetation was re-established in the area of the excavation to install the new leachate force main pipe (refer to Photograph No. 3 in Appendix C).

#### Operational Issues Noted:

1. None.

### 3.3.3 Leachate Collection Ponds

#### General Observations:

1. The liner and sediment level in the ponds were unable to be observed due to the current water level. However, based on discussion with CIP, it is understood that the sediment had been removed from the East Primary Leachate Ponds. The water level appeared to be lower than typical. Additionally, CIP indicated that sediment had been removed from the northernmost West Primary Leachate Pond at the inlet. The slopes of the East Primary Leachate Ponds need vegetation between high water level and current water level (refer to Photograph No. 10 in Appendix C).
2. The West Primary Leachate Pond berms generally showed good vegetative coverage (refer to Photograph No. 21 in Appendix C).
3. The inlet and outlet pipes appeared to be unclogged and free of debris.
4. No visible signs of cracks, erosion or subsidence were observed in the interior slopes of the leachate ponds.
5. The areas where the leachate force main and associated structures were installed had been re-established with vegetation (refer to Photograph No. 8 in Appendix C).
6. Minor amounts of sediment and sparse vegetation remains along the northwest side of the northern West Primary Leachate Pond after the pond cleaning activities (refer to Photograph No. 22 in Appendix C).
7. The emergency spillway concrete remains in poor condition at the south end of the southern West Primary Leachate Pond (refer to Photograph No. 20 in Appendix C).

### Operational Issues Noted:

1. The interior slopes of the East Primary Leachate Ponds need vegetation as a result of the recent cleaning activities (refer to Photograph No. 10 in Appendix C).
2. The remaining sediment and sparse vegetation along the northwest side of the northern West Primary Leachate Pond is susceptible to further erosion (refer to Photograph No. 22 in Appendix C).
3. The emergency spillway concrete remains in poor condition at the south end of the southern West Primary Leachate Pond (refer to Photograph No. 20 in Appendix C) and is not sufficient erosion protection should an overflow event occur.

### 3.3.4 Stormwater Drainage Ditches

#### General Observations:

1. Previously noted debris had been removed from around the stormwater inlets east of the active area (refer to Photograph No. 5 in Appendix C).
2. Vegetation had been re-established along a grass lined ditch at the base of the western closed portion of the landfill (refer to Photograph No. 18 in Appendix C).
3. The minor sediment buildup and vegetation previously observed in a fabriform channel between the inactive and active areas had been removed (refer to Photograph No. 28 in Appendix C).
4. Vegetation was observed within the northeast run-on fabriform channel (refer to Photograph No. 2 in Appendix C).
5. It appears that the stormwater coming from the outlet of the temporary pipe located at the northeast corner of the landfill traversing between the active and closed areas of the landfill may be close to overtopping the fabriform (refer to Photograph No. 4 in Appendix C). Further, the rock dam downslope of the temporary stormwater pipe needs sediment removal.
6. Erosion and sediment buildup was observed in a channel along the base of the slope at the western portion of the active area (refer to Photograph No. 29 in Appendix C).
7. The outlet of culvert pipe beneath an access road west of the northernmost West Primary Leachate Pond was crushed (refer to Photograph No. 27 in Appendix C).
8. The inlet of culvert pipe beneath an access road northeast of the northernmost East Primary Leachate Pond was crushed (refer to Photograph No. 9 in Appendix C).

### Operational Issues Noted:

1. The vegetation observed within the northeast run-on fabriform channel (refer to Photograph No. 2 in Appendix C) is partially blocking stormwater flow.
2. The stormwater coming from the outlet of the temporary pipe located at the northeast corner of the landfill traversing between the active and closed areas of the landfill can cause stormwater to overtop the fabriform (refer to Photograph No. 4 in Appendix C). Further, the rock dam downslope of the temporary stormwater pipe is disrupting stormwater flow.
3. Erosion and sediment buildup in the channel along the base of the slope at the western portion of the active area (refer to Photograph No. 29 in Appendix C) continues to occur.
4. The crushed outlet of culvert pipe beneath an access road west of the northernmost West Primary Leachate Pond (refer to Photograph No. 27 in Appendix C) is blocking stormwater flow.
5. The crushed inlet of culvert pipe beneath an access road northeast of the northernmost East Primary Leachate Pond (refer to Photograph No. 9 in Appendix C) is blocking stormwater flow.

### 3.3.5 Closed Landfill Area

#### General Observations:

1. The slopes generally appeared to be covered with vegetation. No scarps, cracks, subsidence, sloughs, or seeps were observed (refer to Photograph Nos. 11, 13 and 16 in Appendix C).
2. The catch basins appeared functional without blockage from debris or sediment build-up (refer to Photograph No. 23 in Appendix C).
3. The vegetation had been re-established adjacent to the riprap along the Leachate Line 603 repair area (refer to Photograph No. 7 in Appendix C).
4. The erosion along bench at the east portion of the closed area near the temporary pipe had been filled in with soil and re-seeded. Straw bales had been installed (refer to Photograph No. 6 in Appendix C).
5. The woody vegetation had been removed and minor erosion remediated above the fabriform channel at the southern portion of the closed area (refer to Photograph No. 14 in Appendix C).
6. An animal burrow was identified in the grass lined bench of northern closed area (refer to Photograph No. 24 in Appendix C).
7. The aggregate remains in the erosion areas along the southern access road.

Operational Issues Noted:

1. The animal burrow identified in the grass lined bench of northern closed area (refer to Photograph No. 24 in Appendix C) has breached the liner system.
2. The aggregate placed to repair erosion along the southern access road does not meet the liner requirements.

## **4.0 RECOMMENDED REMEDIAL ACTIONS & MAINTENANCE ACTIVITIES**

Based on our observations described in Section 3.3, CEC is providing remedial actions and maintenance activities that should be considered, as described in the section below.

### **4.1 RECOMMENDED REMEDIAL ACTIONS**

Below is a list of recommended remedial actions associated with our site observations as described in Section 3.3.

#### 4.1.1 Active Area (Section 3.3.1)

- a) CIP should consider installing a temporary pipe at the southwest corner of the active portion of the landfill to direct the surface water to the existing fabriform channel system below. This will help prevent water from overtopping the temporary pit and causing erosion of the uncovered slope.

#### 4.1.2 Inactive Area (Section 3.3.2)

- a) None

#### 4.1.3 Leachate Collection Ponds (Section 3.3.3)

- a) The slopes of the East Primary Leachate Ponds need vegetation.
- b) Minor amounts of sediment and sparse vegetation remains along after the pond cleaning activities. The remaining sediment should be removed from the northwest side of the northern West Primary Leachate Pond and vegetation re-established.
- c) The emergency spillway concrete remains in poor condition at the south end of the southern West Primary Leachate Pond. Consideration should be given to replacing the concrete.

#### 4.1.4 Stormwater Drainage Ditches (Section 3.3.4)

- a) The vegetation observed within the northeast run-on fabriform channel should be removed.
- b) Consider dissipating the velocity of the stormwater at the outlet of the temporary stormwater pipe located between the active and closed areas at the eastern side of the landfill in order to prevent the stormwater from overtopping the fabriform channel. This

may be accomplished by utilizing a rock dam to slow the water and direct the water to the drains. Further, the sediment in the rock dam downslope of the temporary stormwater pipe should be removed.

- c) The sediment buildup observed in a channel along the base of the slope at the western portion of the active area should be removed. Further, the erosion should be filled in, regraded and seeded (refer to Photograph No. 29 in Appendix C).
- d) The outlet of culvert pipe beneath an access road west of the northernmost West Primary Leachate Pond was crushed and should be repaired/replaced.
- e) The inlet of culvert pipe beneath an access road northeast of the northernmost East Primary Leachate Pond was crushed and should be repaired/replaced.

#### 4.1.5 Closed Area (Section 3.3.5)

- a) The animal burrow identified in the grass lined bench of northern closed area should be filled in.
- b) The aggregate used to fill in the erosion areas along the southern access road should be removed and re-placed with impermeable soil.

## 5.0 SUMMARY AND CONCLUSIONS

CEC provided a qualified Professional Engineer to perform an annual inspection of the SR 83 Landfill. Based on our observations of the landfill, the site features and engineering systems appeared to be constructed and/or operating in general accordance with the design plans, OEPA Solid Waste Permit, and generally accepted industry standards. No signs of site instability or significant operational concerns were observed. CEC has provided appropriate remedial actions and maintenance activities, described in Section 4.0 of this report, to improve the operational performance of the SR 83 Landfill.

We trust this report and supporting data are sufficient for your needs at this time. The services provided for this project were performed with the care and skill ordinarily exercised by reputable members of the profession practicing under similar conditions at the same time and the same or similar locality. No warranty, expressed or implied, is made or intended by rendition of these consulting services or by furnishing oral or written reports of the findings made. This report has been prepared for exclusive use by CIP.

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**FIGURE**

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**APPENDIX A**

**LANDFILL INSPECTION CHECKLIST**

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**APPENDIX B**

**RECENT WEATHER HISTORY**

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**APPENDIX C**  
**PHOTOGRAPHS**

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