

April 23, 2025

Geoffrey Spain
Environmental Engineer
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



RE: Cass County Sanitary Landfill
Spring 2025 Semi-Annual Inspection
IDNR Permit #15-SDP-01-75C

Dear Mr. Spain,

This semi-annual inspection of the Cass County Landfill was conducted the afternoon of April 16, 2025. The results of the inspection were discussed with Brandi Mericle, Director, the following day. Weather conditions were clear with gusty winds and temperatures in the 70's.

Status of the Permit

The Closure Permit was issued December 5, 2023 and expires December 5, 2053. The facility has received the following amendments to the Closure Permit to date:

- Permit Amendment #1, May 14, 2024, approved the waiver associated with financial assurance.
- Permit Amendment #3, October 31, 2024, approved the Environmental Covenant between the Cass County Environmental Control Agency and IDNR, approved the implementation of no-purge sampling.
- Permit Amendment #4, January 16, 2025, reduced the frequency of leachate level measurement in PZ-1R, PZ-2, PZ-3R, PZ-4, and PZ-5R from monthly to quarterly.

Permit Amendment #2 could not be located.

PERMIT PROVISION STATUS

General Provisions

1. The 2025 Financial Assurance documentation was submitted to IDNR on March 17, 2025 (Doc #112525) and approved by IDNR on April 17, 2025 (Doc #112882).
2. The site was staked and surveyed upon completion of the closure activities. Semi-annual inspections are being conducted and reports submitted as required.

Special Provisions

1. The 30 year closure and post closure period began December 5, 2023.
2. Closure of the Cass County Sanitary Landfill occurred in general accordance with the approved Closure and Post-Closure Plan.

3. No waste is being accepted. No recycling or composting is occurring on the landfill areas. Solid waste and recycling activities are being conducted under the Cass County Solid Waste Transfer Station permit.
4. A recorded Environmental Covenant was submitted to the IDNR on October 30, 2024 (Doc #111194).
5. Monitoring is being conducted as detailed in this Special Provision.
6. The site is inspected semi-annually by a consultant who provides a summary of the site conditions and reports any recommendations for corrective actions. Inspections in 2024 and 2025 were conducted on the following dates:
 - March 25, 2024 (SCS)
 - April 15, 2024 (SCS)
 - May 16, 2024 (SCS)
 - June 27, 2024 (SCS)
 - July 30, 2024 (HLW)
 - August 23, 2024 (HLW)
 - September 19, 2024 (HLW) – Semi-annual engineer’s inspection
 - October 14, 2024 (HLW)
 - November 25, 2024 (HLW)
 - December 27, 2024 (HLW)
 - April 16, 2025 (HLW) – Semi-annual engineer’s inspection

On January 2, 2025, IDNR received a request to suspend monthly inspections of the Closure Cap through the winter months and reduce the frequency to bimonthly beginning in April 2025 (Doc# 111600). IDNR approved the request on January 7, 2025 (Doc# 111726).

7. Diversion and drainage systems have been installed as detailed in the submitted plans. No ponded water was observed during this inspection. Numerous issues with the terraces on the closed unlined area were noted during the Fall, 2024 inspection including silted in terrace channels and overtopped/eroded terraces. These areas have been repaired. No vegetation growth was noted in the repair areas. An erosion rill was noted east of MW-31/MW-32 at the approximate location shown on the attached figure.
8. Most of the closed unlined areas of the site demonstrate good vegetative growth with the exception of a few areas of stressed vegetation noted on the cap. These areas are shown on the attached figure. Numerous saplings were also noted on the closed unlined area

The cap of the closed lined areas completed in 2023 was reseeded in August of 2024 due to poor initial emergence of vegetation on the cap. The vegetation is emerging in the reseeded area although emergence downgradient of the terrace on the south slope is poor.

9. See Items 7 and 8 above.

10. Methane gas monitoring is being conducted quarterly. Results of gas monitoring will be included in the Annual Water Quality Report (AWQR).
11. Leachate is collected in the storage lagoon and when levels require transported to the POTW for treatment in accordance with the approved treatment agreement. Leachate was hauled from the lagoon in 2024 and over 6 feet of freeboard was observed in the lagoon during this inspection. A Leachate Control System Performance Evaluation Report is included in the Annual Water Quality Report each year.

On January 10, 2025 IDNR received a request to reduce leachate head level measurements from monthly to quarterly to coincide with quarterly methane gas measurements (Doc #111787). IDNR issued a permit revision on January 16, 2025 (Doc #111872) approving the request.
12. Based on a risk assessment a leachate control plan is not required for areas that received wastes prior to July 1, 1992.
13. Staff regularly reviews the Transfer Station Emergency Response and Remedial Action Plan (ERRAP). The ERRAP for the Transfer Station was included in the 2022 Permit Renewal documentation (Doc #103459).
14. Approved the financial assurance waiver.
15. Approved the Environmental Covenant between the Cass County Environmental Control Agency and IDNR.

Annual Water Quality Report

The 2024 Annual Water Quality Report (AWQR) was received by IDNR on February 13, 2025 (Doc #112366). IDNR comments on the AWQR have not been received to date.

The Spring 2025 semi-annual sampling event took place on April 16, 2025.

Other Comments

A hole in the lagoon liner was repaired in July, 2024. The hole was at the top of the lagoon slope so it is unlikely lagoon levels ever approached the elevation of the hole. Documentation on the repair was included in the "Certification Report – FML Repair, Leachate Lagoon submitted to IDNR on July 29, 2024 (Doc #110580). IDNR approval of the report is included in Special Provision X.11.f.

LPZ-2 has been damaged and cannot be measured. Potential methods of repair were discussed with Ms Mericle.

Two areas with moist surface soils were noted near PZ-5R. The approximate locations of these areas are included on the attached figure. No free water was noted.

The landfill and transfer station facilities currently operate under NPDES General Permit No. 1 (expires March 10, 2028). The NPDES Permit Discharge Authorization Number is 5825-5645. A

separate "Stormwater Industrial Routine Facility Inspection Report" was completed during the Fall, 2024 inspection and will again be completed during the Fall, 2025 inspection.

IDNR Field Office #4 inspected the site on June 14, 2024. The inspection noted the following:

Closed lined area

"multiple large areas of poor vegetation...on the newly closed portion of the landfill" with "multiple areas where erosion was occurring" The entire cap in the closed lined area was reseeded in August of 2024 although emergence downgradient of the terrace on the south slope is poor. Cap erosion was also repaired in August but is reoccurring in the terrace outlets on the south slope.

Closed unlined area

"small trees present" Trees were still present on the closed unlined area during this inspection. Ms. Mericle stated the agency is purchasing a brush hog to address this issue.

"poor vegetative cover, erosion and washouts along the northside of the old closure" These areas were repaired in 2024. Vegetation in these areas is still sparse at this time.

"a leachate seep occurring on the northwest corner of the closed landfill" This area was repaired during the terrace repairs in 2024. Moist soils were noted in the repair area, no free flowing liquid or signs of leachate flowing along the terrace flow line are evident.

Summary

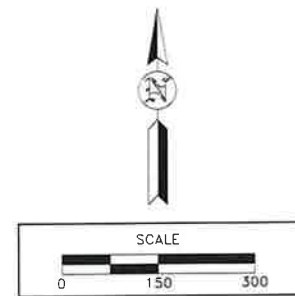
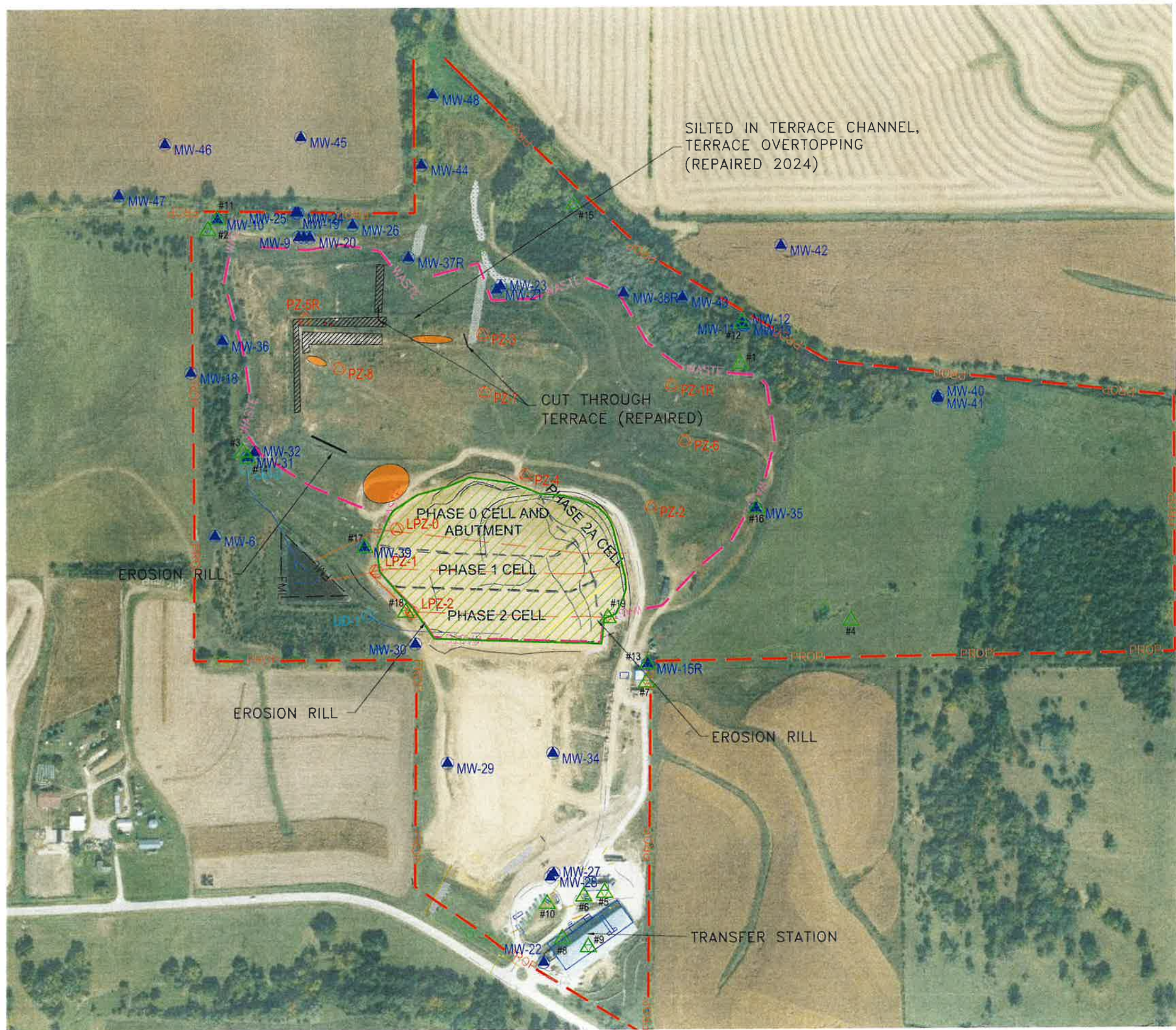
This report is based on observations made at the site at the time of the inspection and the information sources referenced in the report. This report does not reflect typical variations experienced at the site throughout the year or variations in conditions that may be observed at the site at other times.

Recommendations

1. Seed terrace repair areas.
2. Repair LPZ-2.
3. Repair erosion rill.
4. Monitor moist areas near PZ-5R
5. Continue tree removal from the cap.
6. Monitor vegetation on closed lined area and reseed as necessary.
7. Continue to monitor site vegetation and repair/reseed as necessary.
8. Continue to monitor site erosion, drainage, and diversion systems and repair as necessary.



cc: Brandi Mericle, Director, Cass County Environmental Control Agency (electronic copy)
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AERIAL DATED OCTOBER 1, 2023

AERIAL PROVIDED BY THE IOWA STATE UNIVERSITY GEOGRAPHIC INFORMATION SYSTEMS SUPPORT AND RESEARCH FACILITY IN COOPERATION WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES, THE USDA NATURAL RESOURCES CONSERVATION SERVICES, AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.




-  MINIMAL TO NO VEGETATION RELATED TO TERRACE REPAIRS
-  THIN VEGETATION
-  LEACHATE SEEP

FIGURE: 1		NO.	DATE
REVISION		PROJECT NO.	DATE
DRAWN	JGH	6055-24A	4/17/25

SPRING 2025 INSPECTION

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CASS COUNTY SANITARY LANDFILL
ATLANTIC, IOWA