

March 27, 2025

Brad Davison
Environmental Specialist
IDNR – Land Quality Bureau
6200 Park Avenue Suite 200
Des Moines, Iowa 50321



**RE: SEMI-ANNUAL INSPECTION – SPRING, 2025
AMES/STORY ENVIRONMENTAL LANDFILL
IDNR PERMIT NO. 85-SDP-13-91
HLW P.N. 6004-24A.750**

Dear Mr. Davison:

In accordance with Special Provision X.11.a of the Closure Permit, a semi-annual inspection of the Ames/Story Environmental Landfill (ASEL) was personally conducted the afternoon of March 25, 2025. The results were discussed with Bill Fedeler, ASEL, on March 27, 2025. Weather conditions at the time of the inspection were clear with light winds and temperatures in the 50's.

The site stopped receiving waste on June 30, 2011. Waste is directed to the Ames Resource Recovery Plant or the Boone County Sanitary Landfill for disposal. A sign has been posted on the front gate listing the phone numbers for each of these facilities.

Status of the Permit

Closure of the site in accordance with the Closure/Postclosure Plan was completed in 2011. The Closure Permit for the Ames/Story Environmental Landfill was issued on April 25, 2012 and expires on April 25, 2042. The site has received the following permit amendments to date:

- Permit Amendment #1, July 8, 2014, authorized the use of historical data from MW-22 and MW-27 in the calculation of control limits.
- Permit Amendment #2, February 26, 2015, revised the HMSP and included a revised Special Provision #5a of the closure permit. Permit Amendment #2 also incorporated the construction documentation for LPZ-5R into the permit.
- Permit Amendment #3, August 4, 2015, revised the HMSP and included a revised Special Provision #5a of the closure permit.
- Permit Amendment #4, September 14, 2015, revised the sampling requirements by adding parameters for each well in the HMSP during one 2015 sampling event. The fall 2015 sampling event occurred prior to this amendment so the requirements were carried over into Permit Amendment #5.
- Permit Amendment #5, October 12, 2015, revised the sampling requirements by adding parameters for each well in the HMSP during one 2016 sampling event. This sampling was completed on March 11, 2016.
- Permit Amendment #6, January 6, 2016, incorporated the construction documentation for LPZ-T4-1 into the permit.

- Permit Amendment #7, February 18, 2019, approved the following:
 - Removal of MW-38, MW-41, and MW-42 from the HMSP.
 - Removal of the supplemental analytic parameters barium, cobalt, lithium, manganese, strontium, and vanadium from the monitored constituent list.
- Permit Revision #1, June 30, 2023. Incorporated Permit Amendments #1-#7 into the permit and also included the following:
 - Incorporated construction documentation for LPZ-T6-1R (Doc #107015).
 - Renamed the leachate piezometers.
 - Incorporated the waiver for reducing the sampling frequency of background wells.
 - Reduced the sampling frequency of TOX and phenols.

Annual Water Quality Report

The 2024 Annual Water Quality Report (AWQR) was submitted to IDNR on November 20, 2024 (Doc #111397). IDNR comments on the 2024 AWQR were received on January 22, 2025. No response was required.

Monthly Inspections

As required in Special Provision X.11.a of the Closure Permit, monthly inspections of the site were completed from January, 2012 (prior to the issuance of the Closure Permit) through the Fall, 2013 inspection. IDNR eliminated the monthly inspection requirement in the letter dated October 9, 2013.

General Conditions

The front gate was locked. No litter or debris associated with historic landfilling activities was noted at the front gate or anywhere on the site.

Fencing, concrete barriers, drainage ditches, and a creek exist on the perimeter of the landfill to help control access. The south end of the landfill property borders a private drive which is used to access the closed City of Ames Landfill and a police shooting range. A 4' chain link fence borders this drive to restrict site access. There were no signs of trespassing noted anywhere on the site during this inspection.

The closure cap was seeded and had silt fence installed upon completion. These activities are documented in the Quality Control and Assurance Report for the 2011 Closure submitted December 6, 2011 (Doc #67824).

The seeding on the south half of the site developed excellent coverage relatively quickly. As a result of the vegetation, there was minimal erosion noted on the south half of the site and the silt fence was removed prior to the Fall, 2017 inspection. One small area where vegetation was thin was noted during this inspection. No erosion was noted in this area. The approximate location of this area is shown on the attached figure. Note that vegetation had not yet started to emerge on the landfill cap as of the date of the inspection.

The original seeding on the north half had poor survival; however, vegetation on the north half of the site continues to improve. The improvements are the result of numerous maintenance activities that were completed on the north half of the site. The following repairs on the north half of the site have been documented in past inspection reports:

- August, 2012. Removed accumulated sediment from the silt fence and repaired erosion.
- May, 2013. Removed accumulated sediment from the silt fence and repaired erosion, repaired silt fence, installed additional silt fence, reseeded majority of the north half of the site.
- September, 2013. Removed accumulated sediment from the silt fence and repaired erosion.
- September, 2014. Removed accumulated sediment from the silt fence and repaired erosion, repaired silt fence, installed additional silt fence.
- October, 2014. Reseeded disturbed areas on the north half of the site.
- Spring, 2015. Removed accumulated sediment from the silt fence and repaired erosion, repaired silt fence, installed additional silt fence, reseeded disturbed areas on the north half of the site.
- April, 2016. Removed accumulated sediment from the silt fence and repaired erosion, repaired silt fence, installed additional silt fence, reseeded disturbed areas on the north half of the site. Also reseeded a bare area on the south half of the site.
- Summer, 2018. Removed silt fence.
- Summer, 2021. Reseeded bare areas on the north half of the site (2 areas).

Vegetation is in excellent condition on the majority of the north half with the exception of a few areas where thin vegetation was noted during this inspection. No erosion was noted in the areas with thin vegetation. The approximate locations of these areas are shown on the attached figure. Note that vegetation had not yet started to emerge on the landfill cap as of the date of the inspection.

No erosion was noted on cap with the exception of an erosion rill noted near LPZ-T2-1. The rill was referenced in past inspection reports. The rill is well vegetated and based on the condition of vegetation in this area, the rill does not appear to be active. No waste is exposed in the rill. The approximate location of the vegetated rill is shown on the attached figure.

An access road was constructed along the northeast perimeter of the landfill to improve the efficiency of the leachate pipe cleaning. No erosion was noted on the access road during this inspection.

Regular tree removal from the cap continues. The majority of the trees noted during the Fall, 2024 inspection were removed last year with removal concentrating on the northwest quadrant of the site. Regular tree removal should continue.

No leachate seeps were noted during this inspection.

One area of ponded water was noted during the inspection. The ponding was noted immediately north of the entrance gate in the area of the former access road, the ponding was outside of the solid waste boundary. The approximate location of the ponding is shown on the attached figure.

The groundwater diversion system outlet was observed. There was minimal flow (less than 1 gpm) noted at the outlet at the northeast corner of Trench 4 during this inspection. The stream bank in this area was stabilized to protect the groundwater diversion outlet in 2012, 2016, and 2020. No additional erosion has been noted in this location since the last repair and the stabilization continues to protect the groundwater diversion system outlet. The groundwater diversion outlet for Trenches 5 and 6 (formerly SW-6) was connected to the leachate collection system on January 31, 2012. The Construction Certification Report dated February 7, 2012 (Doc #68508) documenting the connection is referenced in Special Provision X.4 of the Closure Permit.

Financial Assurance

2024 Financial Assurance documentation was submitted to IDNR on April 8, 2024 (Doc #109774) and approved by IDNR on October 11, 2024 (Doc #111042). On March 27, 2025, IDNR approved the extension of the submission deadline for the 2025 Financial Assurance documentation to May 31, 2025.

Monitoring Well Maintenance Performance Reevaluation Plan

The most recent Monitoring Well Maintenance Performance Reevaluation Plan (MWMPRP) was submitted to IDNR for review on March 31, 2020 (Doc #97357). The report recommended bentonite removal from MW-34 – the bentonite removal was completed on June 16, 2020. As per IDNR Regulations, the MWMPRP is required every 5 years. Work on the 2025 MWMPRP has begun.

Streambank erosion was previously noted near MW-35. The monitoring well was visited during this inspection - the erosion is not threatening the integrity of the well at this time but should continue to be monitored during future inspections and groundwater sampling events.

All monitoring wells observed during the inspection were locked.

Other Topics

In response to elevated leachate measurements in LPZ-T5-1R leachate piping was cleaned in January/February, 2020, November, 2020, May, 2021, November, 2021, November, 2022, and October, 2023. The IDNR letter dated January 12, 2022 (Doc #102010) recommended annual leachate line cleaning “for the next two years in Trench 5”. Due to the consistency of the measurements in the leachate piezometers the 2023 AWQR recommended that the cleaning schedule be returned to the standard 3 year frequency. IDNR approved this request on June 4, 2024. The next leachate line cleaning is tentatively scheduled to occur in 2026.

The last IDNR Field Office #5 inspection recorded on Document DNA was on April 20, 2020.

Based on observations during the inspection the landfill facility appears to be in general conformance with the Closure Permit.

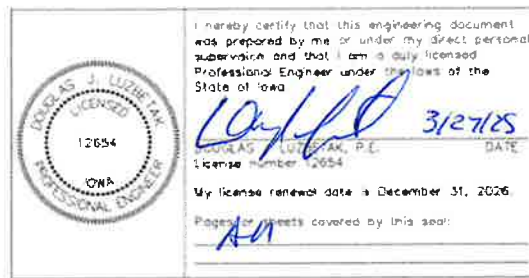
This report is based on observations made at the site at the time of the inspection and the information sources referenced in the report. This report does not reflect typical variations

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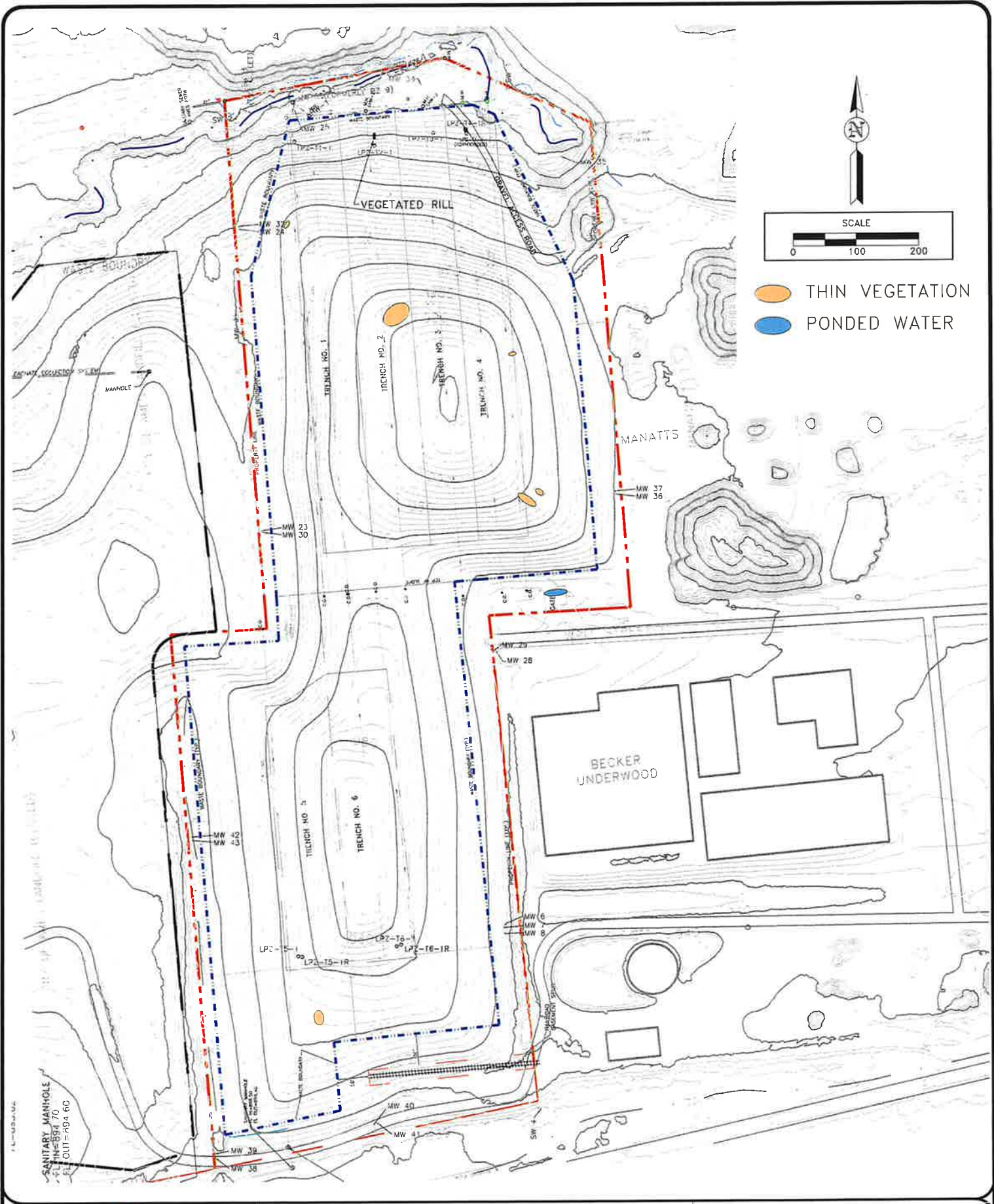
experienced at the site throughout the year or variations in conditions that may be observed at the site at other times.

Recommendations

1. Complete Monitoring Well Maintenance Performance Reevaluation Plan
2. Continue to monitor condition of vegetation, focusing on the areas with thin vegetation noted during this inspection, and reseed and control weeds as necessary.
3. Continue to remove trees from landfill cap as needed.
4. Continue to monitor leachate levels in LPZ-T5-1R and discuss in the 2025 Annual Water Quality Report (AWQR).
5. Monitor the vegetated rill near LPZ-T2-1. Continue to monitor the remainder of the cap for erosion rills and repair as needed.
6. Continue to monitor bank erosion near MW-35 – if erosion appears to threaten the integrity of the well install bank stabilization to protect the MW.



cc: Bill Fedeler, Ames/Story Environmental Landfill



SITE PLAN
 SPRING 2025 INSPECTION
 AMES/STORY ENVIRONMENTAL LANDFILL
 AMES, IOWA

FIGURE:		1	
REVISION	NO.	DATE	
DRAWN JGH	PROJECT NO. 6004-10A	DATE 3/27/25	