

April 26, 2024

Brian L. Rath, P.E.
Environmental Engineer Senior
IDNR – Land Quality Bureau
Wallace State Office Building
502 E. 9th Street
Des Moines, Iowa 50319



**RE: SEMI-ANNUAL INSPECTION – SPRING, 2024
RURAL IOWA SLF
IDNR PERMIT #42-SDP-1-72P
VERTICAL EXPANSION AREA - CLOSED
HORIZONTAL EXPANSION AREA - ACTIVE
HLW PN 6006-23A.750**

Dear Mr. Rath:

In accordance with Special Provision XI.8 of the SDP Permit, a semi-annual inspection of the Rural Iowa SLF was personally conducted the morning of April 22, 2024. The inspection was discussed with Harm Jass, Director, upon its completion. Conditions at the time of the inspection were overcast with strong winds (the area was under a Wind Advisory) and temperatures in the 50's.

Sanitary Disposal Project Permit

The SDP Permit for the Rural Iowa SLF was renewed on November 29, 2022 (expires November 29, 2027). The facility has received the following revisions to the Permit to date:

- Permit Revision, June 2, 2023, approved reducing the frequency of leachate piezometer measurements in the Closed Landfilling area from monthly to quarterly.
- Permit Revision, October 31, 2023, approved the request to construct the Trench 3 Phase 2 Expansion area.

Office/Scale Area

The Rural Iowa Waste Management Association (RIWMA) shares scale operations with the Hardin County Solid Waste Disposal Commission (HCSWDC). The scale is located adjacent to a building owned by the HCSWDC.

RIWMA has an equipment and maintenance building located west of the closed west slope of the original landfilling area. This building is used to house staff offices, sanitary facilities, and to store supplies and maintain/store equipment. The building has a concrete parking area for the convenience of employees and customers.

Recycling Facilities/Material Stockpiles

RIWMA does not accept materials for recycling at the landfill. Member counties/communities are responsible for recycling activities. The HCSWDC has recycling operations at their location adjacent to the landfill property. The HCSWDC owns the compost pad and compost pad retention basin west of the original landfilling area.

Original Landfilling Area (Vertical Expansion Area) - CLOSED

All waste disposal operations were completed in the original landfilling area (vertical expansion area) in 2005. The entire original landfilling area is closed with a 4-foot cap (2-foot low hydraulic conductivity infiltration layer and 2-foot erosion layer) in accordance with the approved Closure/Postclosure Plan and applicable IDNR regulations. Construction Certification Reports and Record Drawings were submitted to IDNR and approved for each phase of the closure. As per Special Provision XI.1 of the SDP Permit the thirty year post closure period for the Original Landfilling Area/Vertical Expansion Area began on October 15, 2007.

Leachate collection laterals (into the waste mass) and conveyance piping were installed on the north, east, and west perimeters of the Original Landfilling Area in 1995/1996.

Vegetation is well established on the majority of the Original Landfilling Area although stressed vegetation/bare spots were noted in the areas shown on the attached figure with smaller areas located sporadically on the north slope.

The majority of the cap was mowed in 2023. Mowing improves site aesthetics and aids in the establishment of desirable vegetation by controlling weeds and tree growth on the cap. Mowing also makes potential problem areas, such as leachate seeps and erosion rills, easier to identify.

The vegetation and terraces have limited the formation of significant erosion rills. A short segment of one of the terrace pipes was exposed at the toe of the west slope at the approximate location shown on the attached figure. The pipe is still functioning.

Ditch checks constructed of rock and concrete rubble were installed in the ditch along the toe of the east slope to help control erosion. Ditch checks were also installed along the haul road west of the west slope. The ditch checks in both locations have worked well to limit erosion in these areas.

No leachate seeps were noted in the closed area.

One area of ponded water was noted on the cap in the closed area near LW-5. The approximate location of the ponding is shown on the attached figure.

Shallow gas vents have been installed on the south slope to limit gas migration toward the agricultural fields to the south.

The erosion at the two locations noted on the bottom terrace bench on the south slope during the Spring 2023 inspection have been repaired. The areas were reseeded but vegetation is thin on the repaired areas. The approximate locations are shown on the attached figure.

Subtitle D Compliant Horizontal Expansion Area

The initial cells of the horizontal expansion area, Phase A of Trench 1 and Phase A of Trench 2, were constructed in 2002. Phase B of Trench 1 was constructed in 2003. Phase C of Trench 1 and Phase C of Trench 2 were constructed in 2005. Phases A, B, and C were constructed with Subtitle D compliant alternative liner systems. Phase 1 of Trench 1 and Trench 2 was constructed in 2008. Phase 2 of Trench 1 and Trench 2 was constructed in 2009. The Trench 3 Expansion project was completed in 2015. Phase 1 and 2 and Trench 3 were constructed with Subtitle D compliant composite liner systems.

The working face was located in the southern portion of Trenches 1 and 2 during the inspection. The landfill compactor was operational and at the working face.

As per Special Provision X.8 of the SDP Permit, the landfill is authorized to utilize a tarp system as an alternative daily cover. The use of the tarp should be encouraged as it will help to reduce the amount of soil used for cover and save airspace to help maximize the life of the facility. Cover soils, when needed, are obtained from the soil stockpile east of Trench 3.

Due to the frequent high wind events over the past two weeks, litter was noted away from the working face with some litter noted off-site. As an aid to controlling windblown litter, the RIWMA has a wind policy that allows for closure of the landfill in the event of sustained strong winds. Mr. Jass reported that the facility had been closed due to high winds for portions of April 12, 16, 17, 19, and 22. Off-site litter has been collected several times and would be collected again the afternoon of the inspection as the landfill was closing at noon due to the Wind Advisory. A net litter fence has been installed on a portion of the south perimeter of the site to limit litter movement off site. Mr. Jass reported that the fence has worked well to date limiting litter movement off-site. Portable litter fences are used when practical to limit litter movement and several portable fences were located adjacent to the working face during the inspection. RIWMA staff retrieve litter on an as needed basis, concentrating on off-site litter first. The RIWMA also has a litter vacuum to aid litter collection efforts. The litter log is maintained by Bruce Rewoldt, Landfill Foreman.

Intermediate cover was added to portions of the north, east, and west slopes of the Horizontal Expansion Area in 2022. The thickness of the intermediate cover appeared adequate although erosion was noted in some areas. The intermediate cover was seeded in 2023 and vegetation is becoming established over portions of the intermediate cover. Mr. Jass reported that hydroseeding of the intermediate cover will continue as needed.

No leachate seeps were noted in the active area during the inspection although several areas of stained soil were noted on the east slope. Note that the intermediate cove on the east slope has been disturbed during the Trench 3 Phase 2 construction project and will need to be restored after project completion.

One area of surface water ponding was noted at the southern edge of the Horizontal Expansion Area during the inspection. The ponding was attributed to the rainfall the site received on April 16 and April 18, the week prior to the inspection.

Leachate collected in the Horizontal Expansion Area flows to a pump station north of Trench 2. Mr. Jass reported that one of the pumps in the pump station is not working and a replacement has been ordered. The leachate is then pumped through a force main to MH-3(N), at the northeast corner of the Original Landfilling Area. From MH-3(N), the leachate joins leachate collected from the Original Landfilling Area and flows to the underground leachate storage tanks.

Rubble ditch checks have been installed on both sides of the access road west of Trench 1 to help control erosion in this area and have worked well to date.

Construction of the Trench 3 Phase 2 expansion project is ongoing. The project has a completion date of August 31, 2024.

Annual Water Quality Report

The 2023 Annual Water Quality Report (AWQR) was received by IDNR on January 30, 2024 (Doc #108983). IDNR comments on the 2023 AWQR have not been received to date.

In response to statistically significant levels (SSL) of cobalt and vinyl chloride at MW-49A and cobalt at MW-14, a “Groundwater Study Near MW-49A & Gas Study near MW-14” was submitted to IDNR on January 26, 2024 (Doc #108997). The study recommended adding additional passive gas vents to supplement the existing corrective measure with additional source control. A Conceptual Plan describing the proposed gas venting mechanisms will be submitted to IDNR.

All monitoring wells viewed during the inspection were locked and labelled.

Stormwater Pollution Prevention Plan

The facility operates under NPDES General Permit No. 1 (expires June 16, 2026).

Many of the activities discussed in this inspection report are to insure continued compliance with the Storm Water Pollution Prevention Plan (SPPP). Due to sustained dry conditions at the site in 2023 the annual stormwater sample was not collected. The site received adequate rainfall for sample collection on April 16, 2024; however, due to beaver activity in South Beaver Creek a sample could not be obtained from the sediment basin outlet due to high water levels in the creek. Containers for this sample are on site.

The ditch checks located east of the Trench 3 Expansion have been removed in conjunction with the Trench 3 Phase 2 expansion project.

Runoff from the horizontal expansion area drains into several sediment control structures located northeast of Trench 3. Staff removed accumulated sediment and willow trees from the upper sediment basin in 2024 to restore sediment capacity. Accumulated sediment was removed from

the lower sediment basin in 2023. Mr. Jass reported that the outlet pipe of the lower basin has been damaged and will need to be repaired/replaced. No flow was noted from either basin during the inspection. Both basins have adequate sediment storage capacity available.

The sediment basin located in the northwest corner of the landfill property had accumulated sediment removed in 1999 and has accumulated minimal additional sediment to date. This sediment basin is generally dry, and has an excellent stand of vegetation established. The vegetation helps to slow water flow and trap sediment in the basin.

The sediment noted at the outlet of the sediment check berm in the southeast corner of the property during the Spring 2023 inspection has been removed. Excavation has begun upgradient of the check berm to increase the sediment holding capacity of the berm. A stoplog structure will also be installed in the check berm during the Trench 3 Phase 2 Expansion project.

Landfill staff remove accumulated sediment from the sediment control structures when needed to maintain sediment storage.

A separate “Stormwater Industrial Routine Facility Inspection Report” was completed during this inspection to satisfy the annual inspection requirement in accordance with the SPPP. The stormwater inspection report is attached to this inspection report and will be filed in the SPPP.

Spill Prevention, Control, and Countermeasures Plan

Due to the amount of petroleum products stored on site, the Rural Iowa Sanitary Landfill operates under a Spill Prevention, Control, and Countermeasures Plan (SPCC). It appears that all petroleum products are being stored as designated in the SPCC. A plug has been installed in the secondary containment system for the diesel and gas tanks. Oil dry is available adjacent to the maintenance fluids in the equipment and maintenance building.

The exterior of the tanks and secondary containment systems were visually observed during the inspection with forms documenting the visual inspection completed and provided to Mr. Jass.

Leachate Storage and Loadout

Leachate is stored in two dual walled underground leachate storage tanks, each with a capacity of 25,000 gallons. The tanks are equipped with a monitoring and alarm system. Both tank monitoring systems were operating during the inspection. The leachate in both tanks was being aerated during the inspection.

The RIWMA has a leachate treatment agreement with the City of Alden as the primary method of leachate disposal. The RIWMA also has a leachate treatment agreement with the Des Moines Metropolitan Wastewater Reclamation Authority as a backup disposal option if needed.

Ammonia loading exceedances over the limits in the City of Alden leachate treatment agreement were discussed during the IDNR Field Office #2 inspection. Mr. Jass provided the Field Office with additional information on April 5, 2024.

The leachate loadout has a concrete spill pad to capture leachate that may be spilled during tank truck loading and direct it back to the leachate storage tanks. No sign of spillage was noted on the pad.

Alternative Daily Cover Guidance Document

The SDP Permit for the Rural Iowa SLF does not contain approvals to utilize any materials as Alternative Daily Cover (ADC) with the exception of a tarp. As a result, a response to the ADC guidance document was not required.

Financial Assurance

A request was emailed to the IDNR on March 22, 2024 (Doc #109590) to extend the 2024 Financial Assurance submission deadline to May 31, 2024. IDNR approved the extension on March 25, 2024.

Tree Removal/Stump Monitoring

IDNR Field Office (FO) #2 issued a Notice of Violation (NOV) on September 30, 2019 regarding tree growth on the closure cap. This section of the report has been added as required by the NOV. The majority of the trees have been removed from the cap. No voids were created in the cap during tree removal. Tree removal continued in 2023 and there is a marked improvement over conditions noted during past inspections. A few saplings were noted on the cap during the inspection.

Additional Comments

IDNR FO #2 inspected the site on March 22, 2024. The FO inspection report listed no violations but contained the following requirement:

- *Assess off-site litter in the field to the east of the landfill per Paragraph 567 IAC 113.8(3)"f".* Due to the sustained high winds experienced at the site off-site litter was noted during the inspection. Mr. Jass reported that the facility had been closed due to high winds for portions of April 12, 16, 17, 19, and 22. Off-site litter has been collected several times and would be collected again the afternoon of the inspection as the landfill was closing at noon due to the Wind Advisory.

Documentation on Random Load Inspections is maintained by Mr. Rewoldt.

The leachate lines were cleaned in 2023. As per IDNR regulations leachate lines must be cleaned every 3 years so the next cleaning should be scheduled for 2026.

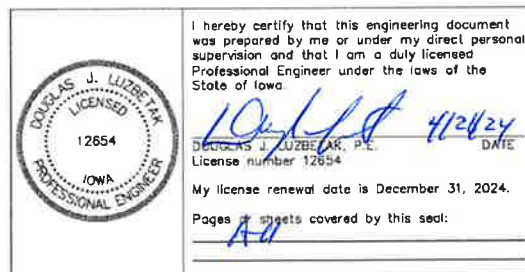
All access roads on site were in good condition; well graded and free of depressions and ruts.

The landfill currently has 4 certified operators on staff.

This report is based on observations made at the site at the time of the inspection and the sources referenced in the report and 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.

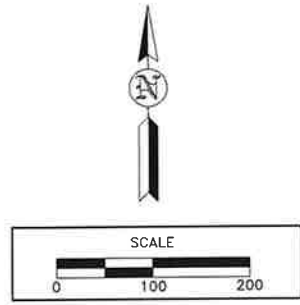
Recommendations

1. Continue to retrieve windblown litter.
2. Collect annual stormwater sample.
3. Add fill as needed to eliminate the ponded area near LW-5.
4. Repair/replace outlet pipe in lower sediment basin.
5. Monitor areas of soil staining noted on the intermediate cover on the east slope of Trench 3 for leachate seepage. Restore the intermediate cover at the completion of the Trench 3 Phase 2 Expansion project.
6. Cover the exposed terrace pipe.
7. Seed the bare/thin areas on the closure cap.
8. Continue removal of silt fence posts in areas where vegetation is well established.
9. Continue tree removal as needed, monitor stumps for regrowth, and treat stumps as needed.
10. Monitor level of sediment in sediment basins, ditch checks, and other sediment control structures and remove sediment as needed to maintain capacity.



cc: Harm Jass, Director, Rural Iowa SLF (electronic copy)
Jeremy Klatt, IDNR Field Office #2 (electronic copy)

LEGEND	
	PROPERTY BOUNDARY
	WASTE BOUNDARY
	EXISTING 10 FT CONTOUR
	EXISTING 2 FT CONTOUR
	GROUNDWATER DIVERSION PIPE
	LEACHATE COLLECTION SYSTEM
	TILE/STORMWATER PIPE
	INTAKE



- BARE/STRESSED VEGETATION AREA
- PONDED WATER

CONTOURS FROM DRONE SURVEY DATED JUNE 26, 2018

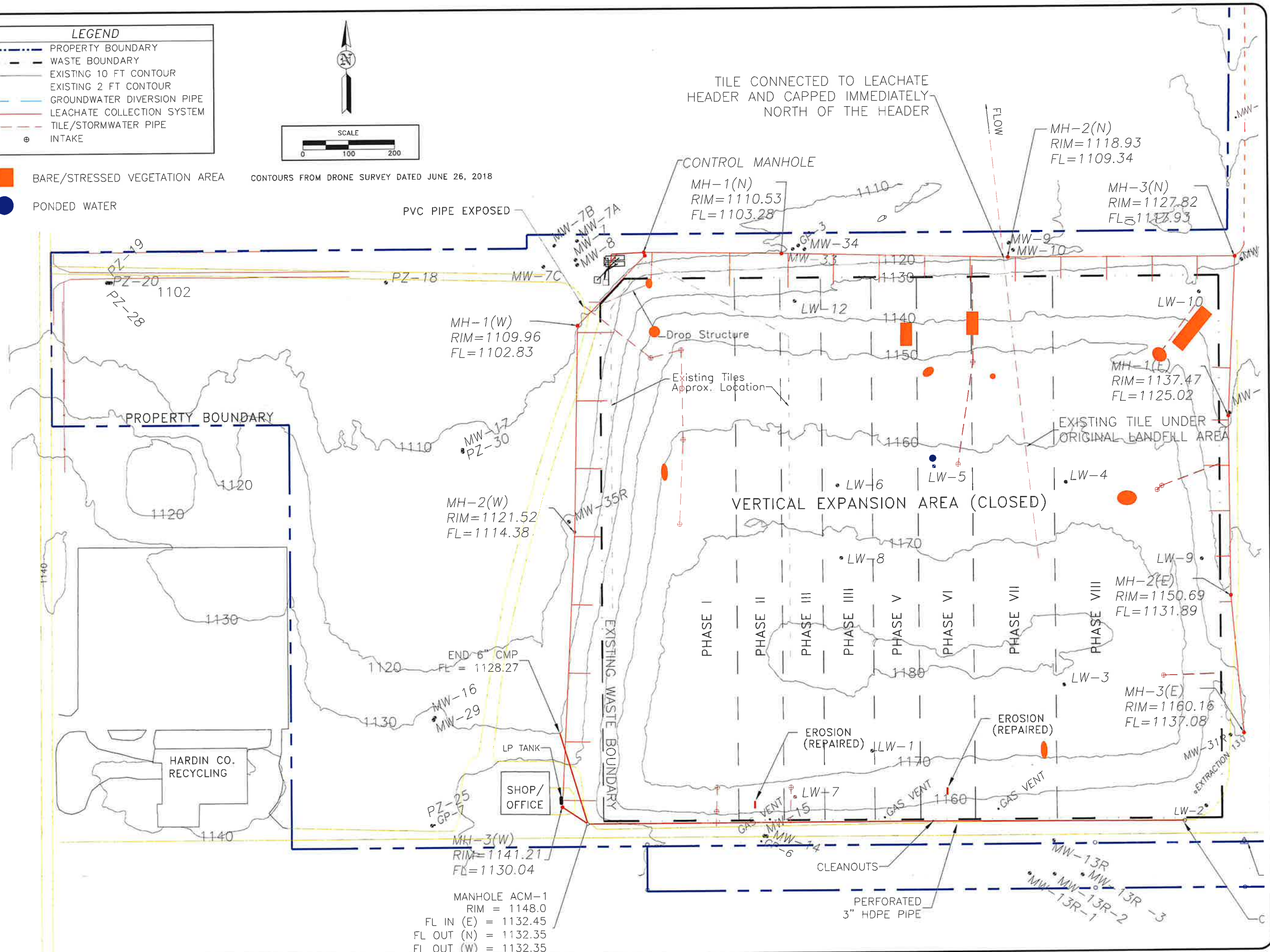


FIGURE: 1	
REVISION	NO.
DRAWN	JGH
PROJECT NO.	6006-23A
DATE	4/26/24

SPRING 2024 INSPECTION

RURAL IOWA SANITARY LANDFILL
ELDORA, IOWA

HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146



	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
8	W Sediment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9	Rubble ditch checks (W of Trench 1)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10	Ditch Checks (E of Trench 3)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	NA - Removed

Areas of Industrial Materials or Activities exposed to stormwater

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	Material loading/unloading and storage areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2	Equipment operations and maintenance areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3	Fueling areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
4	Waste handling and disposal areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Retrieve windblown litter
5	Erodible areas/construction	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Monitor intermediate cover and soil stockpiles for erosion
6	Dust generation and vehicle tracking	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dust was not noted during the inspection. No tracked litter or mud was noted at landfill entrance/exit
7	Leachate Tank Loadout	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

None.

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

The annual stormwater sample for 2024 has not been collected to date. The site received adequate rainfall for sample collection on April 16, 2024; however, due to beaver activity in South Beaver Creek a sample could not be obtained from the sediment basin outlet due to high water levels in the creek. Containers for the sample are on site

Seed to establish vegetation on areas of the closure cap with thin vegetation. Continue to seed the intermediate cover of the active area as needed.

Monitor site erosion and repair as necessary.

Monitor site vegetation and repair as necessary.

Notes

Use this space for any additional notes or observations from the inspection:

Continue to remove silt fence posts in areas where vegetation is established.

The SPPP mapping was updated in 2020 to reflect the completion of the Trench 4-6 Excavation project. The updated mapping was provided to landfill staff on July 31, 2020 for inclusion in the SWPPP.

CERTIFICATION STATEMENT

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Print name and title: Douglas J. Luzbetak, PE

Signature:  Date: 4/26/24