

October 31, 2024

Brian L. Rath, P.E.
Environmental Engineer Senior
IDNR – Land Quality Bureau
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



**RE: SEMI-ANNUAL INSPECTION – FALL, 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 on October 22, 2024. The inspection was discussed with Harm Jass, Director, upon its completion. Conditions at the time of the inspection were clear with moderate winds and temperatures in the 60'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

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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. Mr. Jass reported that soil has been added to several of the bare areas noted during the inspection and that Hardin County has been contacted and areas of the intermediate cover will be hydroseeded either this year (weather dependent) or next Spring.

A portion of the cap was mowed in 2024. 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.

No areas of ponded water were noted in the closed area.

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 were repaired and vegetation is established.

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. These areas 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. The Trench 3 Phase 2 project was approved for waste disposal by IDNR in the IDNR letter dated August 21, 2024 (Doc #110733). These areas were constructed with Subtitle D compliant composite liner systems.

There were two working faces during the inspection. The compactor was at the construction and demolition working face in Trench 3. Select waste is being placed in Trench 3 Phase 2 to protect the composite liner and act as the frost protection layer. Both working areas were well managed. Soil or a tarp system are utilized as 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 stockpiles east of Trench 3.

Litter was noted away from the working face during the inspection; however, no litter was 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. 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 and that a contractor has been retained to install additional net fencing on the perimeter of the site. Installation is scheduled to start the week of October 28. 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 is added to the north, east, and west slopes of the Horizontal Expansion Area as needed. The thickness of the intermediate cover appeared adequate with the exception of the bottom of the intermediate cover on the east slope. The cover in this area had been disturbed during the Trench 3 Phase 2 project this summer. The disturbed portions of the cover are being covered as the frost protection layer is installed in Trench 3 Phase 2. The intermediate cover was seeded in 2023 and vegetation is becoming established over the majority of the intermediate cover although some bare areas were still noted. Mr. Jass reported that Hardin County has been contacted and areas of the intermediate cover will be hydroseeded either this year (weather dependent) or next Spring and that this work will continue as needed in the future.

A reinforced landfill cover (RLC) was installed over the drainage layer in the Trench 3 Phase 2 expansion area to protect the drainage layer and limit leachate generation from this area. The RLC is removed incrementally as needed to expose the drainage layer prior to landfilling. The RLC appeared to be in good shape.

No leachate seeps were noted in the active area during the inspection.

No areas of surface water ponding were noted during the inspection.

Leachate collected in the Horizontal Expansion Area flows to a pump station north of Trench 2. 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.

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 were received on May 29, 2024. The IDNR letter required a response by July 1, 2024. The response was submitted on May 31, 2024 (Doc #110184). IDNR requested additional information via the email dated July 31, 2024. HLW provided a response to IDNR on September 16, 2024. The installation of the first six (6) passive gas vents should be completed by the end of this year as per the schedule provided in the May 31, 2024 letter.

The 2024 Spring Water Quality Notification letter was submitted to IDNR on April 26, 2024 (Doc #110049).

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. Staff replaced the outlet pipe in the lower sediment basin this summer. Due to the sediment removal from the lower sediment basin, outlet pipe replacement, and dry conditions this summer there has been no outflow from the lower sediment basin since the pipe was replaced. Containers for the sample are on site.

The ditch checks located east of the Trench 3 Expansion were removed during 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 a portion of the 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 and landfill staff replaced the outlet pipe in 2024. 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 southeast detention area had the sediment storage increased, outlet pipe replaced, and a stoplog structure installed on the outlet pipe during the Trench 3 Phase 2 Expansion project.

Landfill staff remove accumulated sediment from the sediment control structures when needed to maintain sediment storage. Accumulated sediment should be removed from the ditch west and north of Trenches 1 and 2.

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. The diesel and gas tanks were painted. The plug was not present in the secondary containment system for the diesel and gas tanks during the inspection. 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.

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.

Financial Assurance

The 2024 Financial Assurance documentation was submitted to IDNR on September 27, 2024 (Doc #110956) and approved by IDNR on September 29, 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. A few saplings were noted on the cap during the inspection and should be removed.

Additional Comments

IDNR sent an email dated July 31, 2024 as a follow up to the Spring 2024 Semi-Annual Engineer's Inspection. The email requested that the Fall 2024 Semi-Annual Engineer's Inspection address the following:

- *Reseeding.* Mr. Jass reported that areas of the cap and intermediate cover had soil added after the inspection. Hardin County has been contacted and the areas will be hydroseeded either this year (weather dependent) or next Spring.
- *Soil cover over pipe.* Mr. Jass and I discussed the location of the pipe so staff could install cover.

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. Some dust was noted from the main haul road during the inspection due to the sustained dry conditions.

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

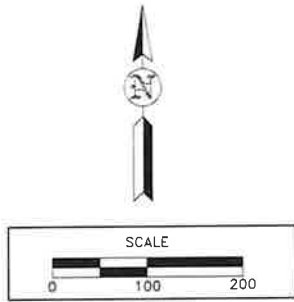
1. Continue to retrieve windblown litter.
2. Remove sediment from the ditch west and north of Trenches 1 and 2.
3. Collect annual stormwater sample.
4. Install passive gas vents.
5. Cover the exposed terrace pipe.
6. Seed the bare/thin areas on the closure cap and intermediate cover.
7. Continue tree removal as needed, monitor stumps for regrowth, and treat stumps as needed.
8. Monitor level of sediment in sediment basins, ditch checks, and other sediment control structures and remove sediment as needed to maintain capacity.



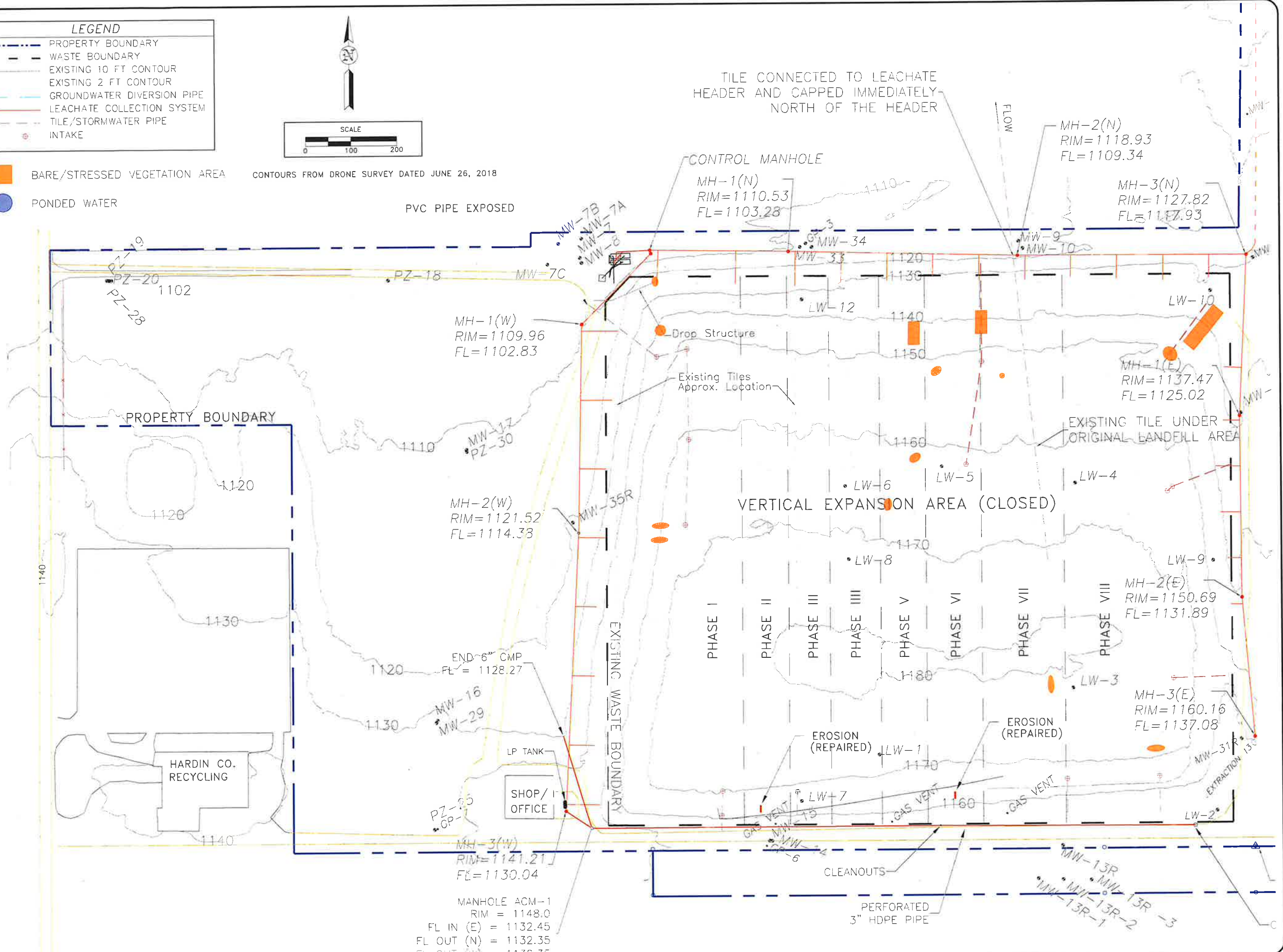
cc: Harm Jass, Director, Rural Iowa SLF (electronic copy)
Madelynn Austin, IDNR Field Office #2 (electronic copy)

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



TILE CONNECTED TO LEACHATE HEADER AND CAPPED IMMEDIATELY NORTH OF THE HEADER

CONTROL MANHOLE

MH-1(N)
RIM=1110.53
FL=1103.28

MH-2(N)
RIM=1118.93
FL=1109.34

MH-3(N)
RIM=1127.82
FL=1117.93

MH-1(W)
RIM=1109.96
FL=1102.83

MH-2(W)
RIM=1121.52
FL=1114.33

MH-1(E)
RIM=1137.47
FL=1125.02

MH-2(E)
RIM=1150.69
FL=1131.89

MH-3(E)
RIM=1160.16
FL=1137.08

MH-3(W)
RIM=1141.21
FL=1130.04

MANHOLE ACM-1
RIM = 1148.0
FL IN (E) = 1132.45
FL OUT (N) = 1132.35
FL OUT (W) = 1132.35

FIGURE: 1	
NO.	DATE
REVISION	PROJECT NO.
DRAWN	6006-23A
JGH	DATE
	10/24/24

FALL 2024 INSPECTION

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RURAL IOWA SANITARY LANDFILL
ELDORA, IOWA

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Rural Iowa Sanitary Landfill		
NPDES Tracking No.	Authorization # 20269-20041		
Date of Inspection	October 22, 2024	Start/End Time	11:30 AM/1:00 PM
Inspector's Name(s)	Douglas J. Luzbetak, P.E.		
Inspector's Title(s)	Project Manager		
Inspector's Contact Information	HLW Group, PO Box 314, Story City, IA 50248, (515)733-4144		
Inspector's Qualifications	Professional Engineer, project manager at the site since 1995		
Weather Information			
Weather at time of this inspection?			
<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: _____ Temperature: 60's			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____			

Control Measures

	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)
1	Terrace system on closed landfill	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Lower Sediment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Accumulated sediment was removed in 2023. Outlet pipe was replaced by landfill staff in 2024.
3	Upper Sediment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	A portion of the accumulated sediment was removed in 2024
4	Sediment check berm w/ plastic pipe (SE corner of Trench 6)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Sediment storage area has been enlarged, outlet pipe replaced, and stoplog structure installed on the outlet pipe.
5	Tile and intakes (S of Trench 1 and 2)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	One intake removed during Trench 3 Expansion project and tile outlet rerouted to SE check berm (Item 4).
6	Rubble ditch checks (E of closed area)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
7	Rubble ditch checks (W of closed area)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
8	W Sediment Basin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance	

	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)
			<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	

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 noted during the inspection due to the sustained dry conditions. 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. Staff replaced the outlet pipe in the lower sediment basin this summer. Due to the sediment removal, pipe replacement, and dry conditions this summer there has been no outflow from the sediment basin after the pipe was replaced. 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 SPPP. SPPP mapping will be updated again due to the completion of the Trench 3, Phase 2 project.

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, P.E.

Signature:  Date: 10/31/24