

March 25, 2026

Mary Klemesrud
Program Planner
IDNR – Land Quality Bureau
6200 Park Avenue Suite 200
Des Moines, Iowa 50312



**RE: 2026 FINANCIAL ASSURANCE
BOONE COUNTY SANITARY LANDFILL
IDNR PERMIT NO. 08-SDP-01-75P
HLW PN 6007-24A.360**

Dear Ms Klemesrud:

Included with this letter is financial assurance documentation for 2026 for the Boone County Sanitary Landfill.

Documentation provided with this letter includes a certified copy of the Closure/Postclosure Cost Estimate and the signed "Municipal Solid Waste Sanitary Landfill Financial Assurance Report Form".

The audit for Boone County has been filed with the State Auditor and is available on the State Auditor's website.

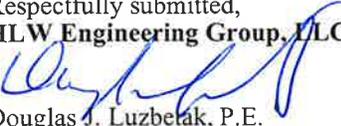
There are two significant changes in the Postclosure cost estimate this year:

1. The number of points that are being sampled at the site has been reduced by six. This is due to the upcoming Phase 9-R Expansion project and the approval by IDNR (in the SDP Permit revision dated March 17, 2026) to shutdown the North Side Corrective Action System for a 5 year demonstration period. If the North Side Corrective Action System is resumed at the end of the demonstration period, which at this point seems unlikely, associated costs will be added back into the postclosure cost estimate.
2. In previous estimates, the costs attributed to leachate management were split between the "Original Landfilling Area" and the "Horizontal Expansion Area". Due to the shutdown of the North Side Corrective Action System as well as the connection of GU-3 to the leachate collection system during the Phase 9-R Expansion project, all leachate management costs are now designated to the Horizontal Expansion Area. This change did not result in a decrease in the cost of operating the leachate management system in the postclosure cost estimate.

Cost estimates have been calculated using actual costs; therefore, adjustments for inflation were determined not to be applicable to the 2026 Closure/Postclosure Cost Estimate.

Please contact me if you have any questions.

Respectfully submitted,
HLW Engineering Group, LLC


Douglas J. Luzbetak, P.E.
Project Manager

cc: John Roosa, Administrator, Boone County SLF (electronic copy)

Authority

The following calculations are based on rules published in 567 IAC Chapter 113.14, "Municipal solid waste landfill financial assurance". This analysis is based on assuming a worst case scenario regarding closure of the landfill and assuming all work associated with closure/postclosure is performed by a third party (i.e., not by landfill staff), as per Regulations. **Estimated costs are based on actual costs and therefore adjustments for inflation were determined not to be applicable in this closure/postclosure cost estimate.**

Landfill Areas

The Boone County SLF is divided into the areas listed below:

Area A (closed)	7.9 acres
Area B (closed)	5.8 acres
Area C (closed)	14.1 acres
Phases 1, 2, and 3 (partially closed)	6.9 acres
Phases 4-R, 5-R, 6-R, 7-R, + 8-R (Horizontal expansion)	35.7 acres

Consider the Original Landfilling Area (OL) to consist of Areas A, B, and C and Phases 1, 2, and 3.

Consider the Horizontal Expansion Area (HE) to consist of Phases 4-R, 5-R, 6-R, 7-R, and 8-R.

Closure Cost Estimate - Original Landfilling Area

Closure costs for Phases 1, 2, and 3 include constructing the compacted clay infiltration layer, erosion layer, any erosion control structures, and seeding. Approximately 3.6 acres of Phases 1, 2, and 3 were closed in accordance with the approved Closure/Postclosure plan in 1999, so the remaining area needing closure in Phases 1, 2, and 3 is 3.3 acres. Estimated quantities and prices for the closure of these areas are as follows:

Infiltration Layer	10,600 yd ³	\$4.00 /yd ³	\$42,400
Erosion Layer	10,600 yd ³	\$3.75 /yd ³	\$39,800
Seeding and Mulching	3.3 acre	\$2,500 /acre	\$8,300
Erosion Control Structures	3.3 acre	\$1,000 /acre	\$3,300
	Total Construction Cost		<u><u>\$93,800</u></u>

Closure Cost Estimate - Horizontal Expansion Area - Alternative Cap

Phases 4-R, 5-R, and 6-R represent the active landfilling area in the horizontal expansion which will require closure with an alternative cap. Phases 4-R, 5-R, and 6-R will be closed with a 4 foot soil cap containing a geonet drainage layer as per the CPCP. The east slope of Area C has a 4 foot Subtitle D compliant abutment liner. The cost of closing this abutment area, approximately 5.1 acres, will be included in the Phase 4-R, 5-R, and 6-R costs below. The total area requiring closure in the horizontal expansion area with an Alternative Cap is 27.7 acres.

Closure costs for the horizontal expansion include constructing the compacted clay infiltration layer, geonet drainage layer, erosion layer, any erosion control structures, and seeding. Estimated quantities and prices for the closure of these areas are as follows:

Infiltration Layer	89,400 yd ³	\$4.00 /yd ³	\$357,600
Geonet Drainage Layer	134,100 yd ²	\$6.50 /yd ²	\$871,700
Erosion Layer	89,400 yd ³	\$3.75 /yd ³	\$335,300
Seeding and Mulching	27.7 acre	\$2,500 /acre	\$69,300
Erosion Control Structures	27.7 acre	\$1,000 /acre	\$27,700
		Construction Cost	<u><u>\$1,661,600</u></u>

Closure Cost Estimate - Horizontal Expansion Area - Composite Cap

Closure costs for the Subtitle D compliant Composite Lined Phases 7-R and 8-R disposal areas (13.1 total acres) include cost of constructing the composite FML cap, erosion and surface water control structures, and seeding. Estimated quantities and prices for the closure of these areas are as follows:

Composite Cap	13.1 acres	\$136,000 /acre	\$1,781,600
(for derivation of cost, see Attachment A)			
Seeding and Mulching	13.1 acres	\$2,500 /acre	\$32,800
Erosion Control Structures	13.1 acres	\$1,000 /acre	\$13,100
		Construction Cost	<u><u>\$1,827,500</u></u>

Total Construction Cost - Original and Horizontal Exp Areas	\$3,582,900
Add 10% of construction cost for mobilization/contingency	\$358,300
Engineering fees for design, bid process, and administration	\$107,500
Engineering fees for staking, inspection, and testing	<u>\$125,400</u>
Total Closure Cost	<u><u>\$4,174,100</u></u>

Postclosure Cost Estimate

Postclosure costs include any costs anticipated during the 30-year postclosure period, based upon current landfill operations and current IDNR regulations. All of the waste deposition areas previously mentioned will require postclosure care and are included in this analysis. The area needing postclosure care in the Original Landfilling Area is approximately 34.7 acres. The area needing postclosure care in the Horizontal Expansion Area is approximately 35.7 acres (22.6 acres - soil cap and 13.1 acres FML cap). Total area is 65.7 acres.

The soil cap, FML cap, erosion control structures, seeding, etc. must be maintained during the postclosure period. Costs associated with this maintenance are estimated to be:

Maintenance/Repair Soil Cap	57.3 acres	\$50 /acre	\$2,900
Maintenance/Repair FML Cap	13.1 acres	\$100 /acre	\$1,300
Reseeding (2% of area annually)	1.4 acres	\$1,200 /acre	\$1,700
Maintenance of Erosion Control	70.4 acres	\$50 /acre	\$3,520
Mowing			<u>\$2,000</u>
			<u>\$11,400</u>

Based on the ratio of the Original Landfilling Area to the Horizontal Expansion Area, attribute these costs as follows:

OL	<u>\$5,600</u>
HE	<u>\$5,800</u>

Water quality reporting, monitoring well sampling, and monitoring well testing will be continued throughout the postclosure period. Since these services cover both the Original Landfilling Area and the Horizontal Expansion Area, split the costs between these areas. Costs associated with water quality reporting, monitoring well sampling, and monitoring well testing are:

An Annual Water Quality Report and Semi-Annual Notification are required.

Annual Report and Semi-Annual Notification	<u>\$5,300</u>
OL	<u>\$2,650</u>
HE	<u>\$2,650</u>

Explosive gas monitoring is required quarterly.

Gas monitoring	\$550 each	4 per year	<u>\$2,200</u>
		OL	<u>\$1,100</u>
		HE	<u>\$1,100</u>

Monitoring Well/Leachate Tank Sampling and Testing

Assume monitoring well sampling will continue as per the SDP Permit and applicable permit amendments and leachate tank sampling will continue as per the treatment agreement with the City of Boone. Estimated testing costs are as follows:

Jan (tanks)	3 tests	\$480 /test	\$1,400
March	18 tests*	\$300 /test	\$5,400
Jul (tanks)	3 tests	\$920 /test	\$2,800
Sept.	18 tests*	\$300 /test	\$5,400

* 17 points and 1 duplicate

Sampling costs are:

Jan (tanks)	\$800
April	\$2,950
Jul (tanks)	\$800
October	<u>\$2,950</u>
	<u>\$22,500</u>
OL	<u>\$11,250</u>
HE	<u><u>\$11,250</u></u>

As per INDR regulations, monitoring wells at the SLF are to be re-evaluated every 2 years. The cost of the re-evaluation is included in the monitoring well sampling and annual reporting costs.

The postclosure costs must be adjusted and Financial Assurance Documentation, including an audit, submitted annually during the postclosure period.

Financial Assurance documentation/postclosure cost estimate	<u>\$5,000</u>
OL	<u>\$2,500</u>
HE	<u><u>\$2,500</u></u>

Assume leachate will continue to be collected and treated in the same manner during the postclosure period as it is now. Leachate is collected and stored in a 915,870 gallon lagoon and three underground storage tanks (11,500 gallon, 11,500 gallons, and 15,000 gallon) and hauled to the City of Boone POTW on an as needed basis for treatment.

HELP model analysis indicates that the peak daily leachate generation rate from the landfill will fall to less than 1 gpd/acre upon closure. Assuming that the leachate generation rate is 1 gpd/acre results in an estimated generation rate during post closure of 15,500 gallons of leachate per year from areas that have a leachate collection system (Phases 1, 2, 3, 4-R, 5-R, 6-R, 7-R, and 8-R). Low flow leachate extraction wells were installed in Area A/B in 2007 - note that these wells are being turned off in accordance with the SDP Permit revision dated March 17, 2026. GU-3 is being connected to the leachate collection system during the Phase 9-R project in 2026. GU-3 was measured as flowing at approximately 0.132 gallons/minute during past sampling episodes. This will add approximately 70,000 gallons of leachate per year.

Therefore, total annual leachate generation expected during postclosure is:

15,500 gallons (HE) + 64,400 gallons (Extraction Wells) = 85,500 gallons

Assume leachate system costs during postclosure are as follows:

Leachate treatment/testing charges at Boone POTW (\$0.013/gal)	\$1,100
Leachate hauling costs to Boone POTW	\$4,300

There needs to be a cost for maintaining the leachate system during the postclosure period. Costs are anticipated to be maintenance on the tank and lagoon.

Annual maintenance of leachate system	<u>\$5,000</u>
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Total yearly cost of leachate system:

Treatment/testing	\$1,100
Hauling	\$4,300
Maintenance	<u>\$5,000</u>
	<u><u>\$10,400</u></u>

With the shut down of the north side corrective action system and the connection of GU-3 to the leachate collection system, attribute all costs associated with the leachate system to the Horizontal Expansion Area. With the addition of the leachate storage lagoon, the costs are considered to be conservative.

As per IDNR regulations, the leachate collection system is to be cleaned once every three years. Cost based upon leachate pipe and storage tank cleaning work done previously. Approximately 1/4 of the pipe requiring cleaning is in the Original Landfilling Area and 3/4 is in the Horizontal Expansion Area. Estimated cost of cleaning leachate collection system is \$10,500 every three years.

\$10,500	Annual Equivalent Cost is	<u>\$3,500</u>
	OL	<u>\$900</u>
	HE	<u><u>\$2,600</u></u>

Financial Assurance Calculations

Closure

Original Landfilling Area and Horizontal Expansion Area \$4,174,100

Postclosure -Original Landfilling Area (annual)

Maintenance of cap, erosion control, etc.	\$5,600
Groundwater Monitoring Reports	\$2,650
Explosive Gas Monitoring	\$1,100
Monitoring Well/Leachate Tank Sampling and Testing	\$11,250
Financial Assurance Documentation	\$2,500
Cleaning Collection System (annual cost)	\$900
	<u>\$24,000</u>

Total cost during 30 year postclosure period - Original Landfilling Area \$720,000

Postclosure -Horizontal Expansion Area (annual)

Maintenance of cap, erosion control, etc.	\$5,800
Groundwater Monitoring Reports	\$2,650
Explosive Gas Monitoring	\$1,100
Monitoring Well/Leachate Tank Sampling and Testing	\$11,250
Financial Assurance Documentation	\$2,500
Leachate Treatment, Testing, etc.	\$10,400
Cleaning Collection System (annual cost)	\$2,600
	<u>\$36,300</u>

Total cost during 30 year postclosure period - Horizontal Expansion Area \$1,089,000



ATTACHMENT A

OPINION OF PROBABLE COST
 BOONE COUNTY SLF
 FML COMPOSITE CAP, cost per acre
 HLW PN 6007-24A.360
 March 19, 2026

Item	Quantity	Unit	Unit Price	Amount
Surface Preparation	4,840	Sq. Yd.	\$0.50	\$2,420.00
Geonet Gas Collection Layer	4,840	Tons	\$6.25	\$30,250.00
4" Perforated Gas Collection Piping	600	Lin. Ft.	\$20.00	\$12,000.00
Gas Vents	1	Each	\$5,000.00	\$5,000.00
Compacted Clay Cap (1.5' thick)	2,420	Cu. Yd.	\$4.00	\$9,680.00
Flexible Membrane Liner	4,840	Sq. Yd.	\$6.25	\$30,250.00
Geonet Drainage Layer	4,840	Sq. Yd.	\$6.25	\$30,250.00
Geonet Drainage Layer Outlet	1	Each	\$4,000.00	\$4,000.00
Vegetative Layer (2' thick)	3,230	Cu. Yd.	\$3.75	\$12,112.50
Total Construction Cost				\$135,962.50



Municipal Solid Waste Sanitary Landfill Financial Assurance Report Form

SECTION 1: FACILITY INFORMATION

(please print or type)

Information Requested

Facility Name: Boone County Sanitary Landfill Permit Number: 08-SDP-01-75P
Permitted Agency/Entity: Boone County Board of Supervisors

SECTION 2: CLOSURE/POSTCLOSURE OR CORRECTIVE ACTION COST ESTIMATES

Information Requested	Cost Estimate	Date of Cost Estimate
Updated Closure Cost Estimate	\$4,174,100	March 19, 2026
Updated Postclosure Cost Estimate	\$720,000 (Original Area) \$1,089,000 (Horizontal Exp)	March 19, 2026
Initial or Updated Corrective Action Cost Estimate	Not Applicable	Not Applicable

*Attach closure/postclosure cost estimate(s) signed and certified by an Iowa-licensed professional engineer. Cost estimates shall include, at a minimum, each of the cost line items defined in 113.14(3)"c" for closure and 113.14(4)"c" for postclosure. Please provide closure and/or postclosure site area acreage information with the estimates.

Provide a cost estimate for corrective action only if corrective action is required and a corrective action plan has been approved by the Department. Attach the corrective action cost estimate signed and certified by an Iowa-licensed professional engineer. The cost estimate shall account for total costs of the activities described in the approved corrective action plan for the corrective action period.

SECTION 3: FACILITY WASTE TONNAGE INFORMATION

Information Requested	Tons
Remaining permitted capacity as of the beginning of permit holder's current fiscal year	1,135,379
Amount of waste disposed of at the facility during the prior year	71,790

SECTION 4: PROOF OF COMPLIANCE

Publicly Owned Municipal Solid Waste Landfills

(ATTACH AUDIT REPORT)

Owner's Most Recent Annual Audit Report

Prepared by: State of Iowa

For fiscal year ending: June 30, 2025

Privately Owned Municipal Solid Waste Landfills

(ATTACH AFFIDAVIT)

Attach owner/operator's affidavit indicating that an annual review has been performed by a certified public accountant to determine whether the privately owned landfill is in compliance with IAC 567 Chapter 113. The affidavit shall state the name of the certified public accountant, the dates and conclusions of the review, and the steps taken to rectify any deficiencies identified by the accountant.

SECTION 5: FINANCIAL ASSURANCE INSTRUMENT

Type and Value of Financial Assurance Instrument(s)

(ATTACH INSTRUMENT(S))

Assurance Instrument	Establishment Date	Mechanism Covers	Instrument Value*
Trust Fund 567 IAC 113.14(6)“a”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Surety Bond 567 IAC 113.14(6)“b”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Letter of Credit 567 IAC 113.14(6)“c”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Insurance 567 IAC 113.14(6)“d”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Corporate Financial Test 567 IAC 113.14(6)“e”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Local Gov’t. Financial Test 567 IAC 113.14(6)“f”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Corporate Guarantee 567 IAC 113.14(6)“g”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Local Gov’t Guarantee 567 IAC 113.14(6)“h”		Closure <input type="checkbox"/> Postclosure <input type="checkbox"/> Corrective Action <input type="checkbox"/>	\$
Local Gov’t. Dedicated Fund 567 IAC 113.14(6)“i”	FY 1993 and November, 2002	Closure <input checked="" type="checkbox"/> Postclosure <input checked="" type="checkbox"/> Corrective Action <input type="checkbox"/>	\$ 5,346,143

*Pursuant to IAC 567 113.14(9), if account(s) are restricted/reserved to pay for closure, postclosure or corrective action costs, then the amount of the financial assurance instrument may be reduced by the sum of the cash balance of the account(s) established to comply with subrule 113.14(8).

SECTION 6: INITIAL PROOF OF ESTABLISHMENT OF ACCOUNTS

Check Which Applies:

New Mechanism

Previously Submitted

Pursuant to IAC 567 Chapter 113.14(8)“f”, documentation of the establishment of accounts is to be submitted to the department by April 1, 2003 for currently permitted MSWLFs. Permit holders for MSWLFs permitted after April 1, 2003, shall submit documentation of the establishment of accounts prior to the MSWLF’s initial receipt of waste.

Please attach documentation indicating accounts/fund have been established for closure and postclosure care and if the account(s) are restricted/reserved for closure or postclosure care. Examples of documentation include bank statements for closure/postclosure accounts, letter signed by the chief financial officer, letter from certified public accountant, etc.

Accounts established pursuant to paragraph 113.14(6)“a” for trust funds or paragraph 113.14(6)“i” for local government dedicated funds also satisfies the requirements of this subrule, and the permit holder shall not be required to establish additional closure and postclosure accounts.

SECTION 7: CLOSURE AND POSTCLOSURE ACCOUNTS

Completion of the following closure and postclosure account information complies with the annual financial statement requirements of IAC 567 113.14(3)“a” and 113.14(4)“a” by indicating the current balance(s) of the closure/postclosure account(s) or dedicated/trust fund and the projected amount(s) to be deposited in the account(s).

Under “Beginning Balance”, please state the account/fund balance 30 days after the start of the previous fiscal year, for “Ending Balance”, indicate the account balance 30 days after the close of the previous fiscal year, and for “Projected Deposit”, indicate the amount to be deposited within 30 days of the close of the permit holder’s fiscal year.

Information Requested	Beginning Balance	Ending Balance	Projected Deposit
Closure Account Balance <i>(see formula below)</i>	\$	\$	\$
Postclosure Account Balance <i>(see formula below)</i>	\$	\$	\$
Or			
Dedicated Fund Balance <i>(see formula below)</i>	\$ 5,141,626	\$ 5,346,143	\$ 127,391
Trust Fund Balance <i>(see formula below)</i>	\$	\$	\$

Formula for Projected Deposits

Closure or Postclosure Account

$$\frac{CE - CB}{RPC} \times TR$$

Where “CE” is the closure or postclosure cost estimate, “CB” is the balance 30 days after close of the previous fiscal year, “RPC” is the remaining permitted capacity in tons, of the landfill from the beginning of the current fiscal year, and “TR” is the total number of tons of solid waste disposed in the prior year.

Dedicated/Trust Fund

$$\frac{CE - CB}{Y}$$

Where “CE” is the closure or postclosure cost estimate, “CB” is the balance 30 days after close of the previous fiscal year, and “Y” is number of years remaining in the pay-in period.

If needed, the space below can be used to show calculations for projected deposits

(1) Balance as of 04/30/24

Projected Deposit

Y = 5 YEARS. Phase 8-R began receiving waste in 2021 – the construction of Phase 8-R increased the remaining permitted capacity of the landfill to over 10 years so a dedicated fund pay in period of 5 years is used in 2026 calculations.

Projected Deposit
 = (\$5,983,100-\$5,346,143)/5 years
 = \$127,391

SECTION 8: PERMIT HOLDER ENDORSEMENT

Submittal of this completed and endorsed form along with all required documentation establishes Notification and Proof of Permit Holder Compliance with IAC 567 Chapter 113.

Name of Official: John Roosa Title: Landfill Administrator

Agency/Entity: Boone County Sanitary Landfill

Address: 1268 224th Lane

City: Boone State: IA Zip: 50036

Telephone: 515-433-0591 Fax: 515-433-0545

Email Address: jroosa@boonecounty.iowa.gov

Signature of Official:  Date: 3/25/2020

Questions? Contact Bill Blum at (515) 240-6048 or Bill.Blum@dnr.iowa.gov