



Memorandum

Foth Infrastructure & Environment, LLC
411 6th Ave SE, Suite 400
Cedar Rapids, IA 52401
(319) 365-9565
foth.com

March 27, 2024

TO: Kenneth Miller, DMASWA
CC:
FR: Brian Harthun, Foth
RE: 2024 Closure/Post Closure Costs

Attached is the updated engineering estimate for the Closure/Post Closure Cost estimate for Cells 1-9 including the abutment liner in Cell 9. Reviewing the 2023 unit costs and comparing it to the IDNR published Inflation Factor of 1.026 date January 25, 202, Foth recommends using the inflation factor to adjust the Closure/Post Closure Costs.

Below is the adjusted Closure Post Closure Cost utilizing the Inflation Factor. The total increase from 2023 to 2024 is \$187,077.48. Attached separately is the breakdown of the Closure/Post Cost Estimate.

DMASWA Closure/Post Closure Cost Estimate		
	2022	2023
Closure Cost	\$4,542,350	\$4,660,508
Post Closure Cost	\$2,649,812	\$2,718,732
Total	\$7,192,162	\$7,379,239

ased on the updated site topography survey and updated density calculations, there is approximately 15.1 years of life based on a remaining air space of 2,375,386 in tons, an average annual rate of 153,497 tons, and the averaged compaction rate of 1,534 tons per cubic yard. Below is the table and graph showing the compaction rates overtime and the remaining airspace.

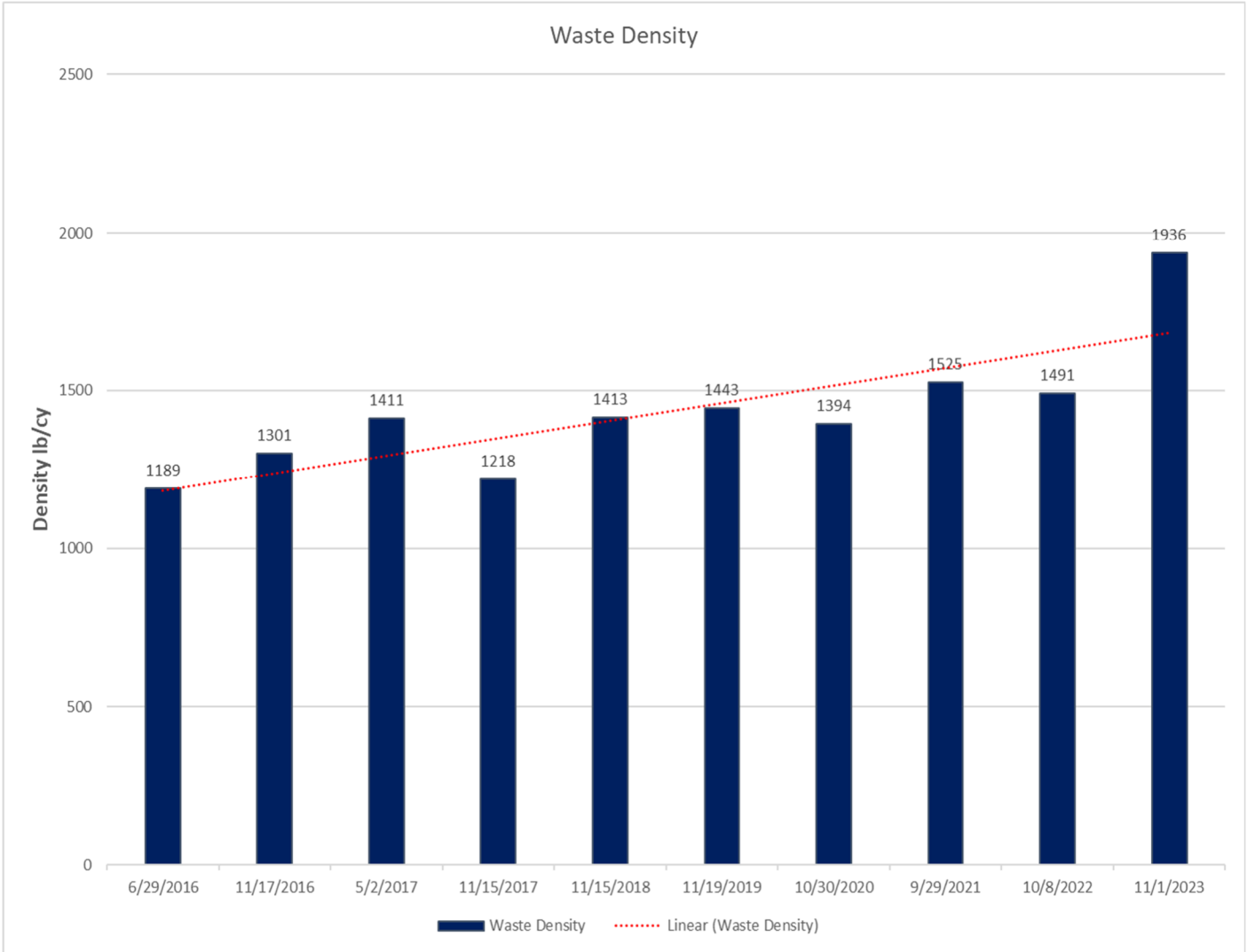


Dubuque Metropolitan Area Solid Waste Agency Landfill Cell 9

Date of Survey	Reporting Period (Days)	Amount of MSW/Period (Tons)	Yearly Rate (Tons/year)	Volume Used/Period (cy)	Density (lbs/cy)	Design Capacity Cell 9 + Abutment 1
						Total Air Remaining Space (cy)
1/7/2016						
	174	63,009	132,174	106,000	1,189	4,710,081
6/29/2016						
	141	56,914	147,331	87,510	1,301	4,622,571
11/17/2016						
	166	65,491	144,001	92,826	1,411	4,529,745
5/2/2017						
	197	88,484	163,942	145,322	1,218	4,384,423
11/15/2017						
	365	140,091	140,091	198,253	1,413	4,186,170
11/15/2018						
	369	173,193	171,316	240,067	1,443	3,946,103
11/19/2019						
	346	155,988	164,554	223,825	1,394	3,722,278
10/30/2020						
	334	150,880	164,884	197,887	1,525	3,524,391
9/29/2021						
	374	176,957	172,699	237,328	1,491	3,287,063
10/8/2022						
	389	185,419	173,979	191,540	1,936	3,097,588
11/1/2023						
Total	2,855	1,071,007	157,497	1,720,558	1,534	3,097,588

Remaining Air Space

Tons	2,375,386.82
Years	15.08





Municipal Solid Waste Sanitary Landfill Financial Assurance Report Form

SECTION 1: FACILITY INFORMATION

(please print or type)

Information Requested

Facility Name: Dubuque Metropolitan Area Solid Waste Agency Permit Number: 31-SDP-02-75
Permitted Agency/Entity: Dubuque Metropolitan Area Solid Waste Agency

SECTION 2: CLOSURE/POSTCLOSURE OR CORRECTIVE ACTION COST ESTIMATES

Information Requested	Cost Estimate	Date of Cost Estimate
Updated Closure Cost Estimate	\$ 4,660,508	3/25/2023
Updated Postclosure Cost Estimate	\$ 2,718,732	3/25/2023
Initial or Updated Corrective Action Cost Estimate	\$ 12,300	5/25/2022

*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	2,375,386.82
Amount of waste disposed of at the facility during the prior fiscal year	

SECTION 4: PROOF OF COMPLIANCE

Publicly Owned Municipal Solid Waste Landfills

(ATTACH AUDIT REPORT)

Owner's Most Recent Annual Audit Report

Prepared by: Forvis

For fiscal year ending: 2023

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”	12/15/1997	Closure <input checked="" type="checkbox"/> Postclosure <input checked="" type="checkbox"/> Corrective Action <input checked="" type="checkbox"/>	\$ 5,476,405.58

*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>	\$ 5,476,405.58	\$ 5,666,688.92	\$ 190,283.34
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

Closure	Postclosure
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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: Kenneth M. Miller Title: Solid Waste Agency Administrator


Agency/Entity: Dubuque Metropolitan Area Solid Waste Agency

Address: 925 Kerper Ct.

City: Dubuque State: IA Zip: 52001

Telephone: (563) 589-4354 Fax: _____

Email Address: kmiller@cityofdubuque.org

Signature of Official:  Date: 3/29/2024

Questions? Contact Chad Stobbe at (515) 201-8272 or Chad.Stobbe@dnr.iowa.gov

3/25/2024

FOR THE

Dubuque Metropolitan Area Solid Waste Agency

DUBUQUE, IOWA

March 25, 2024

Permit No. 31-SDP-2-75P



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Date: 3/25/2024

BRIAN K. HARTHUN, P.E.

My renewal date is December 31, 2024

Pages or sheets covered by this seal:

DUBUQUE FIANACIAL ASSURANCE COST ESTIMATE
 March 25, 2023

Date of Update **3/25/2024**
Closure/Post Closure Update Year **2024**

Closure Cost Estimate

Inflation Factor 1.026

Decription	Quantity	Unit	Unit Cost	Extension	2024
Cells 4-8					
1 R and D Cap	30.7	Acre	\$ 28,053	\$ 861,239	
2 Engineering/Permitting		1 Each	\$ 86,584	\$ 86,584	
				Subtotal	\$ 947,823
Cell 9 Phase 1					
3 Grading Layer		10 Acres	\$ 1,863	\$ 18,628	
4 60-mil HDPE Cap		10 Acres	\$ 50,287	\$ 502,871	
5 Vegetative Layer		10 Acres	\$ 5,587	\$ 55,873	
6 Seeding		10 Acres	\$ 1,848	\$ 18,475	
7 Erosion Control		1 Each	\$ 28,862	\$ 28,862	
8 Engineering/Permitting		1 Each	\$ 57,722	\$ 57,722	
				Subtotal	\$ 682,432
Cell 9 Phase 2					
9 Grading Layer		11 Acres	\$ 7,450	\$ 81,952	
10 60-mil HDPE Cap		11 Acres	\$ 50,287	\$ 553,159	
11 Vegetative Layer		11 Acres	\$ 4,471	\$ 49,176	
12 Seeding		11 Acres	\$ 1,848	\$ 20,323	
13 Erosion Control		1 Each	\$ 28,862	\$ 28,862	
14 Engineering//Permitting		1 Each	\$ 57,722	\$ 57,722	
				Subtotal	\$ 791,192
Cell 9 Phase 3					
15 Grading Layer		10 Acres	\$ 7,450	\$ 74,501	
16 60-mil HDPE Cap		10 Acres	\$ 50,287	\$ 502,871	
17 Vegetative Layer		10 Acres	\$ 4,471	\$ 44,705	
18 Seeding		10 Acres	\$ 1,848	\$ 18,475	
19 Erosion Control		1 Each	\$ 28,862	\$ 28,862	
20 Engineering//Permitting		1 Each	\$ 57,722	\$ 57,722	
				Subtotal	\$ 727,137
Cell 9 Phase 4					
16 Grading Layer		11 Acres	\$ 7,450	\$ 81,952	
17 60-mil HDPE Cap		11 Acres	\$ 50,287	\$ 553,159	
18 Vegetative Layer		11 Acres	\$ 4,471	\$ 49,176	
19 Seeding		11 Acres	\$ 1,848	\$ 20,323	
20 Erosion Control		1 Each	\$ 28,862	\$ 28,862	
21 Engineering//Permitting		1 Each	\$ 57,722	\$ 57,722	
				Subtotal	\$ 791,192
Abutment Area Cell 9					
22 Grading Layer		9.9 Acres	\$ 7,450	\$ 73,756	

23 60-mil HDPE Cap	9.9 Acres	\$ 50,287	\$ 497,843
24 Vegetative Layer	9.9 Acres	\$ 4,471	\$ 44,258
25 Seeding	9.9 Acres	\$ 1,848	\$ 18,291
26 Erosion Control	1 Each	\$ 28,862	\$ 28,862
27 Engineering//Permitting	1 Each	\$ 57,722	\$ 57,722
			Subtotal
			\$ 720,732
			\$ 4,660,508

Post Closure Cost Estimate

Decription	Quantity	Unit	Extension	
1 Cap Maintenance	30	events	\$ 26,553	\$ 796,580
2 GW Monitoring	30	events	\$ 57,722	\$ 1,731,660
3 Inspections	60	events	\$ 1,732	\$ 103,916
4 Leachate Disposal	30	events	\$ 2,886	\$ 86,575
			Total Post Closure Cost	\$ 2,718,732
			Total Closure/Post Closure Estimate	\$ 7,379,239