

## **2024 FINANCIAL ASSURANCE REPORTS**

### **METRO WASTE AUTHORITY**

*METRO PARK EAST LANDFIL (PERMIT NO. 77-SDP-01-72P)*

*METRO PARK EAST LANDFIL (PERMIT NO. 77-SDP-01-72P)*

**March 22, 2024**

300 E LOCUST STREET #100  
DES MOINES, IOWA 50309  
PHONE: (515) 244-0021  
Fax: 515.244.9477

March 18, 2024

Mr. Mike Sullivan  
Iowa Department of Natural Resources  
Land Quality Bureau  
Wallace State Office Building  
502 East 9<sup>th</sup> Street  
Des Moines, Iowa 50319

RE: 2024 Financial Assurance Reports  
Metro Park East Landfill (Permit No. 77-SDP-01-72P)  
Metro Park West Landfill (Permit No. 08-SDP-03-84P)

Dear Mr. Sullivan,

Metro Waste Authority (MWA) is submitting the required financial assurance documentation for both the Metro Park East (MPE) Landfill and Metro Park West (MPW) Landfill. Information contained in this submittal includes:

- Municipal Solid Waste Sanitary Landfill Financial Assurance Report forms for both MPE and MPW Landfills. The forms include the remaining airspace estimates.
- Cost estimates for closure, post-closure and corrective actions associated with the MPE Landfill as prepared and stamped by HDR Engineering Inc.
- Cost estimates for closure, post-closure, and corrective actions associated with the MPW Landfill as prepared and stamped by HDR Engineering Inc.
- Letters from MWA in support of their use of the financial test to demonstrate financial assurance for closure and/or post-closure care costs as specified in IAC 567 Chapter 113.14(3) and 113.14(4).
- MWA Financial Report, which includes the Independent Auditor's Report.
- "Adjustment of Cost Estimates for Inflation" document provided by the IDNR, updated January 25, 2024.

In an effort to assist the Iowa Department of Natural Resources (IDNR) with review, the key changes in the attached cost estimates from the previous March 2023 submittal are summarized below. Each cost estimate unit pricing was updated to include the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022.

- MPE Phase II closure costs – The increase in closure cost estimate is primarily associated with unit price updates due to the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022.
- MPE Phase II post-closure costs – The increase in the post-closure cost estimate is primarily associated with unit price updates due to the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022.

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- MPE Phase I post-closure costs – The number of remaining post-closure years was reduced by one year. Unit price adjustments were applied due to the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022.
  - MPE Phase I corrective action costs – Unit price adjustments were applied due to the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022. The remaining post-closure period was reduced by one year.
  - MPW Boone County closure costs – The increase in closure cost estimate is primarily associated with inclusion of a 2.4-acre Cell D constructed in 2023 and unit price updates due to the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022.
  - MPW Boone County post-closure costs – Unit price adjustments were applied due to the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022.
  - MPW Greene County post-closure costs – The decrease in the post-closure cost estimate is primarily associated with one less year of remaining post-closure period. Previously Greene County and Boone County had separate hydrological monitoring system plans (HMSP). Those monitoring systems were updated and merged into one site HMSP in 2022. Unit price adjustments were applied due to the Adjustment of Cost Estimates for Inflation factor provided by the IDNR for 2023 over 2022.
  - MPW Greene County Corrective Action costs – Included an cost estimate for the corrective measures are in progress at the MPW landfill in accordance with the corrective action monitoring plan (CAMP) submitted on February 02, 2023 (DocDNA ID# 105765) and approved by the IDNR on February 22, 2023 (DocDNA ID# 105912).

MWA has restricted amounts for closure and post-closure care as of June 30, 2023 as shown on page 47 of the Independent Auditor's Report. The Ending Balances under Section 7 of the Financial Assurance Report Forms were obtained from the numbers in the audit and account verification provided from MWA financial accounting staff.

If you have any questions or comments regarding these cost estimates, please contact me at (214) 914-6581 or Andrew Philips at (515) 250-5411.

Sincerely,  
Metro Waste Authority (MWA)

  
Dravid Sabarish  
Solid Waste Engineer

  
Andrew Philips  
Environmental Operations Manager

CC: Katie Kinley, P.E., HDR Engineering  
Attachments: MPE and MPW Financial Assurance Package

**SECTION 1**

**MPE FINANCIAL ASSURANCE REPORT FORM  
ASSOCIATED COST ESTIMATES**



## Municipal Solid Waste Sanitary Landfill Financial Assurance Report Form

### SECTION 1: FACILITY INFORMATION

*(please print or type)*

#### Information Requested

Facility Name: METRO PARK EAST LANDFILL Permit Number: 77-SDP-01-72P  
 Permitted Agency/Entity: METRO WASTE AUTHORITY

### SECTION 2: CLOSURE/POSTCLOSURE OR CORRECTIVE ACTION COST ESTIMATES

Information Requested	Cost Estimate	Date of Cost Estimate
Updated Closure Cost Estimate	\$ 14,620,930	3/8/2024
Updated Postclosure Cost Estimate	\$ 5,566,500 (Phase II)	3/8/2024
	\$ 2,911,020 (Phase I)	
Initial or Updated Corrective Action Cost Estimate	\$ 269,170	3/8/2024

\*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	25,367,492
Amount of waste disposed of at the facility during the prior year	837,456

### SECTION 4: PROOF OF COMPLIANCE

#### Publicly Owned Municipal Solid Waste Landfills

*(ATTACH AUDIT REPORT)*

Owner's Most Recent Annual Audit Report

Prepared by: DENMAN & COMPANY, LLP

For fiscal year ending: JUNE 30, 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”	OCTOBER 4, 2004	Closure <input checked="" type="checkbox"/> Postclosure <input checked="" type="checkbox"/> Corrective Action <input checked="" type="checkbox"/>	\$ 5,234,245
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”	JULY 2000	Closure <input checked="" type="checkbox"/> Postclosure <input checked="" type="checkbox"/> Corrective Action <input type="checkbox"/>	\$ 18,133,375

\*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>	\$ 9,419,364	\$ 10,785,005	\$ 160,985
Postclosure Account Balance <i>(see formula below)</i>	\$ 7,544,550	\$ 7,348,370	\$
<b>Or</b>			
Dedicated Fund Balance <i>(see formula below)</i>	\$	\$	\$
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

<p>Closure  CE = (\$14,620,930 + \$5,566,500 + \$2,911,020) = \$23,098,450  CB = (\$10,785,005 + \$7,348,370) = \$18,133,375  TR = 837,456 TONS  RPC: 25,828,649 TONS    (\$23,098,450 - \$18,133,375) x 837,456 TONS / 25,828,649 TONS = \$ 160,985</p>	<p>Postclosure  INCLUDED IN CLOSURE CALCULATIONS</p>
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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: MICHAEL MCCOY Title: EXECUTIVE DIRECTOR

Agency/Entity: METRO WASTE AUTHORITY

Address: 300 EAST LOCUST, SUITE 100

City: DES MOINES State: IOWA Zip: 50309

Telephone: 515-323-6535 Fax: 515-244-9477

Email Address: mmc@mwatoday.com

Signature of Official:  Date: 3/18/2024

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





March 8, 2024

Mr. Andrew Phillips  
Metro Waste Authority  
Metro Park East Landfill Office  
12181 NE University Avenue  
Mitchellville, Iowa 50169

RE: 2024 Closure, Post-Closure, and Corrective Action Cost Estimates  
Metro Park East Landfill  
Permit No. 77-SDP-01-72P

Dear Mr. Andrew Phillips,

We have updated the closure and post-closure cost estimates for the Phase II municipal solid waste landfill (MSWLF) unit and the post-closure and corrective action cost estimates for the Phase I MSWLF unit to be included in the 2024 financial assurance reports submittal on the Metro Park East (MPE) Landfill. The detailed cost estimates for the MPE Landfill Phase II and Phase I MSWLF units are included in the Attachments. The cost estimates are summarized in the table below.

**MPE Landfill – 2024 Financial Assurance Cost Estimate Summary**

<b>Cost Estimate Item</b>	<b>Estimate</b>
Phase II MSWLF Unit - Closure	\$ 14,620,930
Phase II MSWLF Unit – Post-Closure	\$ 5,566,500
Phase I MSWLF Unit – Post-Closure	\$ 2,911,020
Phase I MSWLF Unit – Corrective Action	\$ 269,170
<b>Total</b>	<b>\$ 23,367,620</b>

If you have any questions or comments regarding these cost estimates, please contact me at (402) 392-6980.

Sincerely,  
HDR Engineering, Inc.

*Katie Kinley*  
Katie Kinley, P.E.  
Environmental/Civil Engineer

CC: MPE Landfill  
Attachments: Cost Estimates





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

*Katie Kinley*  
Katie Kinley, P.E.

3/8/2024

Date

License number P26021

My license renewal date is December 31, 2025

Pages or sheets covered by this seal:

2024 Closure, Post Closure, and Corrective Action Cost Estimate Worksheets:  
Attachments A, B, C, and D

**ATTACHMENT A**

**MPE PHASE II MSWLF UNIT  
2024 CLOSURE COST ESTIMATE WORKSHEETS**

**Fiscal Year 22-23 Closure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

<b>Task<sup>1</sup></b>	<b>Units</b>	<b>Cost per Unit<sup>3</sup></b>		<b>Cost of Task</b>
1. Closure and Postclosure Plan Document Revisions	1	\$11,880	lump sum	\$11,880
2. Site Preparation, Earthwork, and Final Grading <sup>2</sup>	104.8	\$10,310	acre	\$1,080,490
3. Drainage Control Culverts, Piping, and Structures <sup>2</sup>	104.8	\$3,660	acre	\$383,570
4. Erosion Control Structures, Sediment Ponds, and Terraces <sup>2</sup>	104.8	\$3,530	acre	\$369,940
5. Final Cap Construction <sup>2</sup>	104.8	\$88,330	acre	\$9,256,980
6. Cap Vegetation Soil Placement <sup>2</sup>	104.8	\$10,340	acre	\$1,083,630
7. Cap Seeding, Mulching, and Fertilizing <sup>2</sup>	104.8	\$3,920	acre	\$410,820
8. Monitoring Well, Piezometer, and Gas Control Modifications	0	\$0	lump sum	\$0
9. Leachate System Cleanout and Extraction Well Modifications	1	\$307,550	lump sum	\$307,550
10. Monitoring Well Installations and Abandonments	0	\$0	lump sum	\$0
11. Facility Modifications to Effect Closed Status	1	\$57,410	lump sum	\$57,410
12. Engineering and Technical Services	1	\$1,583,810	lump sum	\$1,583,810
13. Legal, Financial, and Administrative Services	1	\$74,850	lump sum	\$74,850
14. Closure Compliance Certifications and Documentation	0	\$0	lump sum	\$0
<b>Total Estimated Cost of Closure</b>				<b>\$14,620,930</b>

**Notes:**

<sup>1</sup> Task items based on the list from IAC 567-113.14(3)"c"(6). Calculations for each task are contained on the following pages.

<sup>2</sup> Current open area requiring final cover: (Cells A, B, C, D, and E) **104.8 acres**

<sup>3</sup> Cost per Unit escalated per Adjustment of Cost Estimates for Inflation provided by IDNR for 2023 over 2022 within summary list above.

Unit pricing within below support tables include costs at the time of incorporation. The costs are inflated within the summary list above with cumulative inflation factors applied since the year incorporated into the estimate (i.e. unit pricing added in 2019 includes inflation factors from 2020 over 2019, 2021 over 2020, 2022 over 2021, and 2023 over 2022 within the summary "Cost Per Unit".

<sup>4</sup> Cost estimate performed March 2024 for FY 22-23.

**Fiscal Year 22-23 Closure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

FY 22-23 Financial Assurance Update

**Closure Costs Tasks:**

**1. Closure and Postclosure Plan Document Revisions**

1a. Closure and Postclosure Plan Document Revisions	\$10,000 lump sum
<b>Total Cost of Item 1</b>	<b>\$10,000 lump sum</b>

Assume:

- Refinements to revise existing closure and postclosure plan document.

**2. Site Preparation, Earthwork, and Final Grading**

2a. Mobilization/Demobilization	\$4,200 per acre
2b. Site Preparation	\$4,480 per acre
<b>Total Cost of Item 2</b>	<b>\$8,680 per acre</b>

Assume:

- Items 2a and 2b based on bid prices from similar projects.
- Item 2a
  - Unit cost based on bid prices from similar projects: \$4,200 per acre
- Item 2b includes site clearing, stripping of soils, establishing construction grade using existing intermediate cover soils within limits of cap construction, and erosion and sediment control. \$4,480 per acre

**3. Drainage Control Culverts, Piping, and Structures**

3a. Letdown Structures	\$2,650 per acre
3b. Drainage Layer Outlet Structure	\$430 per acre
<b>Total Cost of Item 3</b>	<b>\$3,080 per acre</b>

Assume:

- Items 3a and 3b based on bid prices from similar projects.
- Item 3a also includes quantity for terrace tie-in, rip rap outfall, and rock check dams.
  - Unit cost based on 2019 RS Means and bid prices from similar projects: \$65 per ton
  - Approx. tons per LF: 6.1 tons per LF
  - For closure of the Phase II Cells A, B, C, D, and E MSWLF units: 4,270 ton
  - Phase II Cells A, B, C, D, and E MSWLF letdown structure approx. length: 700 LF
  - Current area requiring final cover: 104.80 acres
- Item 3b.
  - Unit cost based on bid prices from similar projects: \$850 each
  - Average structures required: 0.5 per acre

**Fiscal Year 22-23 Closure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**4. Erosion Control Structures, Sediment Ponds, and Terraces**

4a. Soil Terrace and Diversion Berms	\$1,400 per acre
4b. Sediment Ponds	\$0 per acre
4c. Erosion Control/Turf - Terraces	\$1,070 per acre
4d. Silt Fences	\$500 per acre
<hr/>	
<b>Total Cost of Item 4</b>	<b>\$2,970 per acre</b>

Assume:

- Items 4a and 4c based on bid prices from similar projects.

- Item 4a.

Phase II Cells A, B, C, D, and E MSWLF units terrace approx. length:	9,151 LF
Current area requiring final cover:	104.80 acres
Unit cost based on general terrace size and costs from similar projects:	\$16 per LF

- Item 4b.

Sedimentation ponds existing prior to closure.

- Item 4c.

Phase II Cells A, B, C, D, and E MSWLF units terrace approx. length:	9,151 LF
Approx. amount of terrace:	2.44 SY per LF
For closure of the Phase II Cells A, B, C, D, and E MSWLF units:	22,328 SY
Unit cost based on 2019 RS Means and bid prices from similar projects:	\$5.00 per SY

- Item 4d

Approximate length of silt fence (assume twice terrace length):	18,302 LF
Unit cost based on bid cost from similar projects:	\$2.85 per LF

**5. Final Cap Construction**

5a. 18 inches Recompacted Clay Layer (includes 20% for shrinkage)	\$14,520 per acre
5b. LLDPE Geomembrane Liner	\$30,490 per acre
5c. Drainage Composite	\$28,750 per acre
5d. Side Slope Termination	\$580 per acre
<hr/>	
<b>Total Cost of Item 5</b>	<b>\$74,340 per acre</b>

Assume:

- Items 5a through 5d based on bid prices from similar projects and assumes soils on-site.

- Item 5a.

Unit cost based on bid prices from similar projects:	\$5.00 per CY
Volume per acre (includes add'l 20% for shrinkage)	2,904 CY per acre

- Item 5b.

Unit cost based on bid prices from similar projects:	\$0.70 per sq. ft
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- Item 5c.

Unit cost based on bid prices from similar projects:	\$0.66 per sq. ft
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- Item 5d

Unit cost based on bid prices from similar projects:	\$6.50 per LF
Phase II Cells A, B, C, D, and E MSWLF anchor trench approx. length:	9,300 LF
Current area requiring final cover:	104.80 acres

**6. Cap Vegetative Soil Placement**

6a. 24 inches Erosion Layer (includes 10% for shrinkage)	\$8,700 per acre
<hr/>	
<b>Total Cost of Item 6</b>	<b>\$8,700 per acre</b>

Assume:

- Item 6a based on bid prices from similar projects and assumes soils are on-site.

Unit cost based on bid prices from similar projects:	\$2.45 per CY
Volume per acre (includes 10% shrink)	3,549 CY per acre

**Fiscal Year 22-23 Closure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**7. Cap Seeding, Mulching, and Fertilizing**

7a. Revegetation	\$3,300 per acre
<hr/>	
<b>Total Cost of Item 7</b>	<b>\$3,300 per acre</b>

Assume:

- Item 7a based on bid prices from similar projects.
  - Unit cost based on bid prices from similar projects: \$3,000 per acre
  - Current area requiring final cover: 104.80 acres
  - Plus Area needing revegetation outside of final cover: 10% of the required final cover area
  - Total number acres for seeding: 115 acres

**8. Monitoring Well, Piezometer, and Gas Control Modifications**

8a. Monitoring Well Modifications	\$0
8b. Piezometer Modifications	\$0
8c. Gas Control Modifications	\$0 per acre
<hr/>	
<b>Total Cost of Item 8</b>	<b>\$0 per acre</b>

Assume:

- No monitoring well and piezometer modifications needed at the time of closure.
- LFG collection system wells, header piping, and lateral piping costs responsibility of Waste Management per contract between Metro Waste Authority and Waste Management.
- Metro Waste Authority responsible for condensate/leachate lines, air lines, and extraction pumps, as applicable.
- No modifications needed at the time of closure for items for which Metro Waste Authority is responsible.

**9. Leachate System Cleanout and Extraction Well Modifications**

9a. Cleanout Extension	\$4,850 lump sum
9b. LFG Extraction Wellheads FML Penetration	\$44,000 lump sum
9c. Leachate Recirculation Trenches	\$210,000 lump sum
<hr/>	
<b>Total Cost of Item 9</b>	<b>\$258,850 lump sum</b>

Assume:

- Item 9a based on bid prices from similar projects.
  - Unit cost based on bid prices from similar projects: \$269 each
  - For Cells A, B, C, D, and E: 18 cleanouts
- Item 9b based on up to 40 LFG extraction wells proposed for the Phase II Cells A, B, C, and D MSWLF units. LFG extraction well installation costs responsibility of Waste Management per contract between Metro Waste Authority and Waste Management.
  - Unit cost based on bid prices from similar projects: \$1,000 each
  - For Phase II Cells A, B, C, D, and E MSWLF units: 44 LFG Wells
- Item 9c.
  - Recirculation trench cost (approximate): \$35 per LF
  - Leachate recirculation trench length (Phase II Cells A, B, C, D, & E): 6,000 LF

**10. Monitoring Well Installations and Abandonments**

10a. Monitoring Well Installations and Abandonments	\$0 lump sum
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<b>Total Cost of Item 10</b>	<b>\$0 lump sum</b>

Assume:

- No monitoring well installation or abandonment needed at the time of closure.

**Fiscal Year 22-23 Closure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**11. Facility Modifications to Effect Closed Status**

11a. Signs Modification/Removal	\$2,120 lump sum
11b. New Access Road for Cap Maintenance	\$46,200 lump sum
<hr/>	
<b>Total Cost of Item 11</b>	<b>\$48,320 lump sum</b>

Assume:

- Item 11a.

For Phase II Cells A, B, C, D, and E MSWLF units:	4 signs
Estimated cost of primary signs at:	\$530 per sign

- Item 11b.

Roadway aggregate and structural fill:	\$12.00 per SY
Phase II Cells A, B, C, D, and E MSWLF units access road approx. length (future):	1,750 LF
Average road width 20 feet:	2.2 SY per LF
For closure of the Phase II Cells A, B, C, D, and E MSWLF units:	3,850 SY

**12. Engineering and Technical Services**

12a. Closure Design	\$200,000 lump sum
12b. Bid Documents, Letting, and Closure Certification Report	\$252,000 lump sum
12c. Testing	\$126,000 lump sum
12d. Construction Observation and Staking	\$755,000 lump sum
<hr/>	
<b>Total Cost of Item 12</b>	<b>\$1,333,000 lump sum</b>

Assume:

- Cost for Items 12b, 12c, and 12d based on % of estimated closure cost (items 2 through 7), 2%, 1%, and 6%, respectively.

**13. Legal, Financial, and Administrative Services**

13a. Legal, Financial, and Administrative Services	\$63,000 lump sum
<hr/>	
<b>Total Cost of Item 13</b>	<b>\$63,000 lump sum</b>

Assume:

- Based on 0.5% of estimated closure cost (items 2 through 7).

**14. Closure Compliance Certifications and Documentation**

14a. Closure Certification Document	\$0 lump sum
<hr/>	
<b>Total Cost of Item 14</b>	<b>\$0 lump sum</b>

Assume:

- Included in Item 12.



**ATTACHMENT B**

**MPE PHASE II MSWLF UNIT  
2024 POST-CLOSURE COST ESTIMATE WORKSHEETS**

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

<b>Task<sup>1</sup></b>	<b>Units</b>	<b>Cost Per Unit / Year<sup>3</sup></b>	<b>30 Year Cost</b>
1. General Site Facilities, Access Roads, and Fencing Maintenance (O)	30	\$13,690	\$410,700
2. Cap and Vegetative Cover Maintenance (O)	30	\$36,130	\$1,083,900
3. Drainage and Erosion Control Systems Maintenance (O)	30	\$12,270	\$368,100
4. Groundwater to Waste Separation Systems Maintenance (G)	30	\$5,420	\$162,600
5. Gas Control Systems Maintenance (M)	30	\$6,700	\$201,000
6. Gas Control Systems Monitoring and Reporting (M)	30	\$22,300	\$669,000
7. Groundwater and Surface Water Monitoring Systems Maintenance (G)	30	\$1,520	\$45,600
8. Groundwater and Surface Water Quality Monitoring and Reporting (G)	30	\$27,350	\$820,500
9. Groundwater Monitoring Systems Performance Evaluations and Reports (G)	30	\$0	\$0
10. Leachate Control Systems Maintenance (L)	30	\$29,490	\$884,700
11. Leachate Management, Transportation, and Disposal (L)	30	\$7,940	\$238,200
12. Leachate Control Systems Performance Evaluations and Reports (L)	30	\$4,160	\$124,800
13. Engineering and Technical Services (O)	30	\$9,900	\$297,000
14. Legal, Financial, and Administrative Services (O)	30	\$1,190	\$35,700
15. Financial Assurance, Accounting, Audits, and Reports (O)	30	\$7,490	\$224,700
<b>Annual Average Post-Closure Cost</b>		<b>\$185,550</b>	
<b>Total Estimated Cost of Post-Closure Care</b>			<b>\$5,566,500</b>

**Notes:**

<sup>1</sup> Task items based on the list from IAC 567-113.14(4)"c"(6). Calculations for each task are contained on the following pages.

<sup>2</sup> For MWA use items are coded leachate (L), groundwater (G), methane (M), or other (O).

**113.9 acres (Cells A, B, C, D, E)**

<sup>3</sup> Cost per Unit escalated per Adjustment of Cost Estimates for Inflation provided by IDNR for 2023 over 2022 within summary list above.

Unit pricing within below support tables include costs at the time of incorporation. The costs are inflated within the summary list above with cumulative inflation factors applied since the year incorporated into the estimate (i.e. unit pricing added in 2019 includes inflation factors from 2020 over 2019, 2021 over 2020, 2022 over 2021, and 2023 over 2022 within the summary "Cost Per Unit".

<sup>4</sup> Cost estimate performed March 2024 for FY 22-23.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**Post-Closure Costs Tasks:**

**1. General Site Facilities, Access Roads, and Fencing Maintenance**

1a. Gate Replacement	\$170 per year
1b. Sign Replacement	\$50 per year
1c. Roadway Maintenance	\$9,720 per year
1d. Survey Monuments	\$250 per year
1e. Fence Repair and Replacement	\$1,330 per year
<hr/>	
<b>Total Cost of Item 1</b>	<b>\$11,520 per year</b>

Assume:

- Item 1a based on costs from local contractors.			
Price per gate:		\$2,500 each	
No. of Double Swing Gates at 20 feet wide:	1		
Frequency of replacement:	1 every		15 years
- Item 1b.			
Estimated cost of sign replacement:		\$530	
Frequency of sign replacement:	1 every		10 years
- Item 1c based on prior similar contracts.			
Roadway aggregate and structural fill:		\$12.00 per SY	
Phase II Cells A, B, C, D, and E MSWLF units access road approx. length:	14,600 LF		
Average road width 20 feet:	2.2 SY per LF		
Yearly estimated gravel replenish at:	2.5% of the access road area		
For postclosure of Phase II Cells A, B, C, D, and E MSWLF units:	810 SY		
- Item 1d.			
Estimated cost per inspection:		\$500 per event	
Inspected biennially per IAC 113.8(2)"a"(5):	1 every		2 years
- Item 1e based on costs from local contractors.			
Length of perimeter chain link fence (existing):	7,500 LF		
Length of perimeter barbwire fence (existing):	21,000 LF		
Yearly estimated fence repair:	1% of the total		
Chain link fence repair cost:		\$27.00 per LF	
Barb wire fence repair cost:		\$3.00 per LF	

**2. Cap and Vegetative Cover Maintenance**

2a. Final Cover Repair	\$13,510 per year
2b. Reseeding	\$10,250 per year
2c. Mowing	\$5,630 per year
2d. Weed and Tree Control	\$1,020 per year
<hr/>	
<b>Total Cost of Item 2</b>	<b>\$30,410 per year</b>

Assume:

- Item 2a based on bid prices from similar projects.			
- Item 2a			
Unit cost per CY:		\$2.45 per CY	
Current area requiring final cover:	113.90 acres		
Estimated repair depths:	1 FT		
Yearly estimated final cover repair at:	3% of the total area		
For postclosure of the Phase II Cells A, B, C, D, and E MSWLF units:	5,513 CY		
- Item 2b based on bid prices from similar projects.			
Unit cost based on bid prices from similar projects:		\$3,000 per acre	
Current area requiring final cover:	113.90 acres		
Yearly estimated final cover repair at:	3% of the total area		
- Item 2c.			
Mobilization		\$500 per mobilization	
Unit cost (high end typical)		\$45 per acre	
Frequency of mowing event:	1 time within		1 years
- Item 2d.			
Estimated cost per weed and tree control event, 24 hours labor + expenses:		\$2,040	
Frequency of weed and tree control event:	1 time within		2 years

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**3. Drainage and Erosion Control Systems Maintenance**

3a. Ditch Cleaning		\$2,160 per year
3b. Culverts Cleaning and Repair		\$500 per year
3c. Sedimentation Pond Cleaning		\$7,670 per year
<b>Total Cost of Item 3</b>		<b>\$10,330 per year</b>

Assume:

- Item 3a.			
Estimated crew at:		\$450 per crew hour	
Frequency of ditch cleaning:	144 hours total for		30 years
- Item 3b.			
Two man jet truck at:		\$250 per crew hour	
No. of hours per event (culverts around Phase II):	6 hours every		3 years
- Item 3c.			
Estimated cost per cleaning event:		\$50,000 per acre	
Size of sedimentation pond:	4.6 acres		
Frequency of cleaning sedimentation ponds:	1 time within		30 years

**4. Groundwater to Waste Separation Systems Maintenance**

4a. Groundwater Control System - Equipment Maintenance		\$2,230 per year
4b. Groundwater Control System Line Cleaning		\$1,610 per year
4c. Utilities - Groundwater Control System		\$720 per year
<b>Total Cost of Item 4</b>		<b>\$4,560 per year</b>

Assume:

- Item 4a.			
Four points (GU-3A, GU-3, GU-4, and GU-5) comprise the current groundwater control system pump stations. Cost based on the leachate control system maintenance cost. \$90,000 is budgeted for FYE 2018 for the 3rd party pump/telemetry maintenance costs (including Phase II GW control system and Phase I and Phase II leachate collection systems). Assume \$30,000 per year during the post-closure period for total 3rd party pump/telemetry maintenance cost. Assume 5% of the maintenance cost for leachate and groundwater pumping equipment for the Phase II Cells A, B, C, D, and E.			
Equipment maintenance cost:		\$30,000 average per year	
Equipment maint. for the Phase I MSWLF unit leachate collection:	75%		
Equipment maint. for the Phase II MSWLF unit leachate collection:	20%		
Equipment maint. for the Phase II MSWLF unit GW control system:	5%		
Phase II MSWLF unit GW control system equipment maintenance cost:		\$1,500 per year	
Groundwater pump (pump/counter/tubing) cost:		\$3,630 EA	
Pump replacement rate:	1 pumps every		5 years
Pump repair and replacement cost:		\$726 per year	
- Item 4b.			
Based on bid prices from similar projects.			
Unit cost per LF:		\$4.28 per LF	
GW lines associated with Phase II Cells A, B, C, D, and E MSWLF units:	11,250 LF (approximate)		
Frequency of groundwater line jet cleaning:	1 time within		30 years
- Item 4c.			
Cost based on MWA's budget for the utilities cost for leachate collection.			
Utility cost:		\$14,400 per year	
Utilized for the Phase I MSWLF unit leachate collection (assumed):	75%		
Utilized for the Phase II MSWLF unit leachate collection (assumed):	20%		
Utilized for the Phase II MSWLF unit GW control system (assumed):	5%		

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**5. Gas Control Systems Maintenance**

5a. Probes	\$640 per year
5b. Methane Monitoring per IAC 113.9 (Structures and Subsurface)	\$5,000 per year
5c. Active Gas Wells	\$0 per year
5d. Energy Facility and Flare Operations	\$0 per year
5e. Piping Maintenance	\$0 per year
<b>Total Cost of Item 5</b>	<b>\$5,640 per year</b>

Assume:

- Item 5a.
 

No. of probes in monitoring network:	20 probes	
Total monitoring well depth for abandonment:	387 FT	
Abandonment cost:		\$50 per FT
<b>Total well abandonment cost:</b>		<b>\$19,350</b>
Total well depth for installation:	387 FT	
Installation cost:		\$50 per FT
<b>Total well installation cost:</b>		<b>\$19,350</b>
Well protection removal cost:		\$250 per probe
<b>Total well protection removal cost:</b>		<b>\$5,000</b>
Well protection installation cost:		\$1,000 per well
<b>Total well protection installation cost:</b>		<b>\$20,000</b>
Well replacement/repair:	1% per year during postclosure period	
- Item 5b.
 

Estimated cost for gas monitoring:	\$1,250 per event	
Frequency of methane monitoring:	4 times within	1 years
- Item 5c.
 

Active gas wells maintenance is the responsibility of Waste Management (per contract).
- Item 5d.
 

Energy Facilities and Flare Operations maintenance is the responsibility of Waste Management (per contract).
- Item 5e.
 

LFG Piping maintenance is the responsibility of Waste Management (per contract).

**6. Gas Control Systems Monitoring and Reporting**

6a. NSPS Surface Monitoring	\$4,070 per year
6b. Gas Monitoring Report	\$1,000 per year
6c. NSPS and GHG MRR Reporting Requirements	\$12,300 per year
6d. NSPS Emission Fees	\$1,400 per year
<b>Total Cost of Item 6</b>	<b>\$18,770 per year</b>

Assume:

- Item 6a.
 

Estimated cost for gas monitoring for Phase II MSWLF unit:	\$3,700 per event	
Frequency of NSPS surface monitoring:	4 times per year for	1 years
Frequency of NSPS surface monitoring:	1 times per year for	29 years
Assumes only annual monitoring due to no exceedances in 3 consecutive events.		
- Item 6b.
 

Estimated yearly cost for gas collection report:	\$1,000 per year
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- Item 6c.
 

Title V Annual Emission Inventory:	\$4,800 per year	
Title V Annual Compliance Certification:	\$1,500 per year	
GHG Mandatory Reporting Rule Report:	\$3,000 per year	
Title V Semi-Annual Monitoring Report:	\$1,500 per report x # per yr.	2
- Item 6d.
 

Assumes emission fees remain constant over postclosure period.	
Emission Fee:	\$1,400 per year

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**7. Groundwater and Surface Water Monitoring Systems Maintenance**

7a. Groundwater Monitoring Well Replacement/Repair (Phase II MSWLF Unit)	\$700 per year
7b. Groundwater Sampling Pump and Equipment Maintenance (Phase II MSWLF Unit)	\$580 per year
<b>Total Cost of Item 7</b>	<b>\$1,280 per year</b>

Assume:

- Item 7a. For the Phase II MSWLF Unit			
No. of wells in monitoring network (Phase II and CWTS):	9 wells		
Total monitoring well depth for abandonment:	264 FT		
Abandonment cost:		\$50 per FT	
Total well abandonment cost:		\$13,200	
Total well depth for installation:		209 FT	
Installation cost :		\$50 per FT	
Total well installation cost:		\$10,450	
Well protection removal cost:		\$250 per well	
Total well protection removal cost:		\$2,250	
Well protection installation cost:		\$1,000 per well	
Total well protection installation cost:		\$9,000	
Well replacement/repair:		2% per year during postclosure period	
- Item 7b. Assume low flow sampling method will be utilized during the postclosure care period.			
No. of low flow sampling pump installed (Phase II MSWLF Unit):	10 pumps		
Replacement of low flow pump:	60% of total pumps during postclosure period		
Low flow sampling pump and associated apparatus :		\$1,500 per pump	
Labor cost (estimate):		\$70 per pump	
Total low flow sampling pump maintenance cost:		\$310 per year	
Low flow sampling equipment (MP15, MP30-150, and MP20):		\$9,000 total capital cost	
Maintenance including calibration:	3% of capital cost per year		
Total low flow sampling equipment maintenance cost:		\$270 per year	

**8. Groundwater and Surface Water Quality Monitoring and Reporting**

8a. Groundwater Sampling	\$4,750 per year
8b. Analysis	\$6,770 per year
8c. Water Quality Report	\$11,500 per year
<b>Total Cost of Item 8</b>	<b>\$23,020 per year</b>

Assume:

- Conduct routine semiannual samplings for the wells in detection monitoring per 113.10(5).			
No. of points in detection monitoring per 113.10(5) (includes CWTS):	10.50 GU-4 is sampled annually		
- For the semi-annual event when Appendix II list sampling is collected (once every 5 years), no Appendix I list sampling is shown as Appendix I constituents are included in Appendix II list.			
No. of points in assessment monitoring per 113.10(6):	2 (from 2017 AWQR)		
No. of remaining years for semi-annual sampling:	30 years		
No. of remaining events for 5-year frequency Appendix II sampling:	6 times for post-closure		30 years
- Item 8a.			
Estimated mobilization cost per sampling event:		\$500 per sampling event	
Frequency of mobilization:	2 times within		1 years
Total mobilization cost:		\$1,000 per year	
Estimated cost per sampling per point:		\$150 per sampling point	
Frequency of detection/assessment monitoring:	2 times within		1 years
Total detection monitoring sampling cost:		\$3,750 per year	
- Item 8b.			
Frequency of Appendix I sampling:	2 times within		1 years
Appendix I analytical cost:		\$235 per sample	
Rate of duplicate samples:		10%	
Total Appendix I analytical cost:		\$6,359 per year	
Appendix II analytical cost:		\$1,036 per sample	
Total Appendix II analytical cost:		\$414 per year over period	
Note: Appendix I sampling is not analyzed when Appendix II sampling is required. No duplicate Appendix II required.			
- Item 8c.			
AWQR for the Phase II MSWLF unit cost:		\$7,500 per report	
Semi AWQR for the Phase II MSWLF unit cost:		\$4,000 per report	
Frequency of reporting (both AWQR and Semi AWQR):	1 time within		1 years

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

FY 22-23 Financial Assurance Update

**9. Groundwater Monitoring Systems Performance Evaluations and Reports**

NA	\$0 per year
<b>Total Cost of Item 9</b>	<b>\$0 per year</b>

Assume:

- Included in Item 8.

**10. Leachate Control Systems Maintenance**

10a. Pump Repair and Replacement	\$2,100 per year
10b. Leachate Line Cleaning	\$13,840 per year
10c. Equipment Maintenance - Leachate Collection and Treatment System	\$6,000 per year
10d. Utilities - Leachate Collection and Treatment System	\$2,880 per year
<b>Total Cost of Item 10</b>	<b>\$24,820 per year</b>

Assume:

- Item 10a. Cost provided by MWA.

Pump Station 2 pump cost:	\$6,000 EA	
Pump station 2 pump replacement rate:	1 pump every	10 years
Sideslope riser pump cost:	\$4,500 EA	
Sideslope riser pump replacement rate:	1 pump every	3 years
Pump repair and replacement cost:	\$2,100 per year	

No leachate extraction wells are proposed to be installed in the Phase II MSWLF unit.

- Item 10b. Cost provided by MWA.

Unit cost per LF:	\$4.28 per LF	
Leachate line associated with the Phase II:	9,700 LF (approximate)	
Frequency of leachate line jet cleaning:	1 times within	3 years

- Item 10c.

Cost based on the leachate control system maintenance cost. \$90,000 is budgeted for FYE2018 for the 3rd party pump/telemetry maintenance costs (including Phase II GW control system and Phase I and Phase II leachate collection systems). Assume \$30,000 per year during the post-closure period for total 3rd party pump/telemetry maintenance cost. Assume 25% of the total 3rd party pump/telemetry maintenance cost will be used for the Phase II Cell A, B, C, and D MSWLF units leachate control and groundwater control systems maintenance.

Equipment maintenance cost:	\$30,000 average per year
Equipment maintenance for the Phase I MSWLF unit leachate collection:	75%
Equipment maintenance for the Phase II MSWLF unit leachate collection:	20%
Equipment maintenance for the Phase II MSWLF unit GW control system:	5%
<b>Phase II MSWLF unit leachate collection equipment maintenance cost:</b>	<b>\$6,000 per year</b>

- Item 10d.

Cost provided by MWA for the utilities cost for leachate collection.

Utility cost:	\$14,400 per year
Utilized for the Phase I MSWLF unit leachate collection (assumed):	75%
Utilized for the Phase II MSWLF unit leachate collection (assumed):	20%
Utilized for the Phase II MSWLF unit GW control system (assumed):	5%
<b>Phase II MSWLF unit leachate collection utility cost:</b>	<b>\$2,880 per year</b>

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**11. Leachate Management, Transportation, and Disposal**

11a. Leachate Sampling	\$3,000 per year
11b. Leachate Recirculation	\$3,680 per year
11c. Leachate Transportation and Disposal	\$0 per year
<hr/>	
<b>Total Cost of Item 11</b>	<b>\$6,680 per year</b>

Assume:

- Item 11a.
 

Annual leachate sampling and analytical cost:	\$3,000 per sampling event
Frequency of leachate sampling per POTW agreement:	1 time within 1 years

- Item 11b. Cost provided by MWA

Note: Remaining absorptive capacity of the in-place waste determined sufficient to absorb 100% of the MPE leachate.

Estimated generation from the Phase II MSWLF Unit:	7,190,000 gallons per year, first 3 years
Note: Assumed 150 gallons per acre per day.	
Estimated generation from the Phase II MSWLF Unit:	2,876 gallons per year, remaining 27 years
Note: Leachate generation rate ratio of open and FML capped conditions based on HELP models = 0.04%	

Average annual Phase II MSWLF unit leachate generation rate:	721,588 gallons per year
Average annual Phase II MSWLF unit leachate recirculation rate:	721,588 gallons per year
Leachate recirculation labor/equipment/maintenance:	\$3,680 per year

- Item 11c. Cost provided by MWA.

Leachate Transportation cost:	\$45.77 per 1,000 gallons
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Leachate disposal cost:	\$51.00 per 1,000 gallons
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Est. leachate requiring off-site disposal:	0.00 gallons per year average
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Note: 100% of leachate generated from the Phase I and II MSWLF units will be recirculated.

**12. Leachate Control Systems Performance Evaluations and Reports**

12a. Leachate Control System Performance Evaluation Report	\$3,500 per year
<hr/>	
<b>Total Cost of Item 12</b>	<b>\$3,500 per year</b>

Assume:

- Item 12a.
 

Estimated yearly cost for LCSPE report associated with Phase II:	\$3,500 per year
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**13. Engineering and Technical Services**

13a. Engineering and Technical Services	\$4,430 per year
13b. Site Inspection	\$3,900 per year
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<b>Total Cost of Item 13</b>	<b>\$8,330 per year</b>

Assume:

- Item 13a.
 

Estimated cost for engineering and technical services:	5% of postclosure care cost
The postclosure care cost includes items 1, 2, 3, 4, 5, 7, and 10:	\$88,560 per year
- Item 13b. Based on Table 3-1 of the Closure/Post Closure Plan
 

Estimated cost for postclosure inspection:	\$1,500 per event
Inspection frequency:	12 event per year for 1 years
Inspection frequency:	4 event per year for 4 years
Inspection frequency:	2 event per year for 25 years



**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase II MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**14. Legal, Financial, and Administrative Services**

14a. Legal, Financial, and Administrative Services	\$1,000 per year
<b><i>Total Cost of Item 14</i></b>	<b>\$1,000 per year</b>

Assume:

- Item 14a.

Estimated yearly costs: \$1,000 per year

**15. Financial Assurance, Accounting, Audits, and Reports**

15a. Annual financial assurance estimate and report	\$1,500 per year
15b. Annual financial assurance audit/assistance	\$4,800 per year
<b><i>Total Cost of Item 15</i></b>	<b>\$6,300 per year</b>

Assume:

- Item 15a.

Financial assurance for MPE Landfill Phase II post-closure cost estimate: \$1,500 per year

- Item 15b.

Financial/administrative cost: \$120 per hour  
Estimate: 40 hours per year

**ATTACHMENT C**

**MPE PHASE I MSWLF UNIT  
2024 POST-CLOSURE COST ESTIMATE WORKSHEETS**

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

<b>Task<sup>1</sup></b>	<b>Units<sup>2</sup></b>	<b>Cost Per Unit / Year<sup>5</sup></b>	<b>Post-Closure Cost</b>
1. General Site Facilities, Access Roads, and Fencing Maintenance: 00-2600-006(O)	14	\$3,840	\$53,760
2. Cap and Vegetative Cover Maintenance: 00-2600-006(O)	14	\$15,420	\$215,880
3. Drainage and Erosion Control Systems Maintenance: 00-2600-006(O)	14	\$0	\$0
4. Groundwater to Waste Separation Systems Maintenance: 00-2600-002(G)	14	\$0	\$0
5. Gas Control Systems Maintenance: 00-2600-004(M)	14	\$0	\$0
6. Gas Control Systems Monitoring and Reporting: 00-2600-004(M)	14	\$6,420	\$89,880
7. Groundwater and Surface Water Monitoring Systems Maintenance: 00-2600-002(G)	14	\$3,300	\$46,200
8. Groundwater and Surface Water Quality Monitoring and Reporting: 00-2600-002(G)	14	\$38,260	\$535,640
9. Groundwater Monitoring Systems Performance Evaluations and Reports: 00-2600-002(G)	14	\$0	\$0
10. Leachate Control Systems Maintenance: 00-2600-003(L)	14	\$69,320	\$970,480
11. Leachate Management, Transportation, and Disposal: 00-2600-003(L)	14	\$56,080	\$785,120
12. Leachate Control Systems Performance Evaluations and Reports: 00-2600-003(L)	14	\$4,160	\$58,240
13. Engineering and Technical Services: 00-2600-006(O)	14	\$9,350	\$130,900
14. Legal, Financial, and Administrative Services: 00-2600-006(O)	14	\$0	\$0
15. Financial Assurance, Accounting, Audits, and Reports: 00-2600-006(O)	14	\$1,780	\$24,920
<b>Annual Average Post-Closure Cost</b>		<b>\$207,930</b>	
<b>Total Cost of Postclosure</b>			<b>\$2,911,020</b>

**Notes:**

<sup>1</sup> Task items based on the list from 567 IAC 113.14(4)"c"(6). Calculations for each task are contained on the following pages.

<sup>2</sup> 30-year postclosure period for the Phase I MSWLF unit will end in year 2038.

As of year: 2024                      The remaining years of the regulatory 30-year post-closure period is:                      14

<sup>3</sup>For the site wide items covered under the Phase II MSWLF unit postclosure fund for which no change in scope resulted from the addition of the Phase I MSWLF unit, no additional funding will be required within the Phase I MSWLF unit postclosure financial assurance.

<sup>4</sup>For MWA use items are coded groundwater (00-2600-002(G)), leachate (00-2600-003(L)), methane (00-2600-004(M)), or other (00-2600-006(O)).

<sup>5</sup> Cost per Unit escalated per Adjustment of Cost Estimates for Inflation provided by IDNR for 2023 over 2022 within summary list above.

Unit pricing within below support tables include costs at the time of incorporation. The costs are inflated within the summary list above with cumulative inflation factors applied since the year incorporated into the estimate (i.e. unit pricing added in 2019 includes inflation factors from 2020 over 2019, 2021 over 2020, 2022 over 2021, and 2023 over 2022 within the summary "Cost Per Unit".

<sup>6</sup> Cost estimate performed March 2024 for FY 22-23.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**Closure Costs Tasks:**

**1. General Site Facilities, Access Roads, and Fencing Maintenance**

1a. Gate Replacement	\$0 per year
1b. Sign Replacement	\$0 per year
1c. Roadway Maintenance	\$3,230 per year
1d. Survey Monuments	\$0 per year
1e. Fence Repair and Replacement	\$0 per year
<b>Total Cost of Item 1</b>	<b>\$3,230 per year</b>

Assume:

- Items 1a, 1b, 1d, and 1e based on costs from local contractors.  
Refer to note 3 on summary page.
- Item 1c based on bid prices from similar projects.  
Roadway aggregate and structural fill: \$12.00 per SY  
Phase I MSWLF unit access road approx. length: 4,900 LF  
Average road width 20': 2.2 SY per LF  
Yearly estimated gravel replenish at: 2.5% of the access road area  
For postclosure of the Phase I MSWLF unit: 270 SY per LF

**2. Cap and Vegetative Cover Maintenance**

2a. Final Cover Repair	\$4,210 per year
2b. Reseeding	\$3,200 per year
2c. Mowing	\$4,790 per year
2d. Weed and Tree Control	\$780 per year
<b>Total Cost of Item 2</b>	<b>\$12,980 per year</b>

Assume:

- Item 2a based on bid prices from similar projects.
- Item 2a
  - Unit cost per CY: \$2.45 per CY
  - Current area requiring final cover: 213 acres
  - Estimated repair depths: 1 FT
  - Yearly estimated final cover repair at: 0.5% of the total area
  - For postclosure of the Phase I MSWLF unit: 1,718 CY
- Item 2b based on bid prices from similar projects.  
Current area requiring final cover (Phase I MSWLF unit): 213 acres  
Yearly estimated final cover repair at: 0.5% of the total area  
For postclosure of the Phase I MSWLF unit: \$3,000 per acre
- Item 2c.  
Mobilization cost included with MPE Phase II mowing.  
Unit cost (high end typical) \$45 per acre  
Frequency of mowing event: 1 time within 2 years
- Item 2d.  
Estimated cost per weed and tree control event, 16 hours labor + expenses: \$1,560  
Frequency of weed and tree control event: 1 time within 2 years

**3. Drainage and Erosion Control Systems Maintenance**

3a. Ditch Cleaning	\$0 per year
3b. Culverts Cleaning and Repair	\$0 per year
3c. Sedimentation Pond Cleaning	\$0 per year
<b>Total Cost of Item 3</b>	<b>\$0 per year</b>

Assume:

- Item 3a, 3b, and 3c.  
Refer to note 3 on summary page.

**4. Groundwater to Waste Separation Systems Maintenance**

NA	\$0 per year
<b>Total Cost of Item 4</b>	<b>\$0 per year</b>

Assume:

- There is no groundwater control system for the Phase I MSWLF unit.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**5. Gas Control Systems Maintenance**

5a. Probes	\$0 per year
5c. Active Gas Wells	\$0 per year
5d. Energy Facility and Flare Operations	\$0 per year
5e. Piping Maintenance	\$0 per year
<b>Total Cost of Item 5</b>	<b>\$0 per year</b>

Assume:

- Item 5a.  
Refer to note 3 on summary page.
- Item 5b.  
Active gas wells maintenance is the responsibility of Waste Management (per contract).
- Item 5c.  
Energy Facility and Flare Operations maintenance is the responsibility of Waste Management (per contract).
- Item 5d.  
Piping maintenance is the responsibility of Waste Management (per contract).

**6. Gas Control Systems Monitoring and Reporting**

6a. NSPS Surface Monitoring	\$5,400 per year
6b. Gas Monitoring Report	\$0 per year
6c. NSPS and GHG MRR Reporting Requirements	\$0 per year
6d. NSPS Emission Fees	\$0 per year
<b>Total Cost of Item 6</b>	<b>\$5,400 per year</b>

Assume:

- Item 6a.  
Estimated cost for gas monitoring. \$5,400 per event  
Frequency of NSPS surface monitoring: 1 times per year every 1 years  
Assumes only annual monitoring due to no exceedances in 3 consecutive events.
- Item 6b through 6d.  
Refer to note 3 on summary page.

**7. Groundwater and Surface Water Monitoring Systems Maintenance**

7a. Groundwater Monitoring Well Replacement/Repair (Phase I MSWLF Unit)	\$2,280 per year
7b. Groundwater Sampling Pump and Equipment Maintenance (Phase I MSWLF Unit)	\$500 per year
<b>Total Cost of Item 7</b>	<b>\$2,780 per year</b>

Assume:

- Item 7a. For the Phase I MSWLF Unit
 

No. of wells in monitoring network (Phase I and CWTS):	24 wells	
Total monitoring well depth for abandonment:	838 FT	
Abandonment cost:		\$50 per FT
<b>Total well abandonment cost:</b>		<b>\$41,900</b>
Total well depth for installation:	838 FT	
Installation cost :		\$50 per FT
<b>Total well installation cost:</b>		<b>\$41,900</b>
Well protection removal cost:		\$250 per well
<b>Total well protection removal cost:</b>		<b>\$6,000</b>
Well protection installation cost:		\$1,000 per well
<b>Total well protection installation cost:</b>		<b>\$24,000</b>
Well replacement/repair:		2% per year during postclosure period
- Item 7b. Assume low flow sampling method will be utilized during the postclosure care period.
 

No. of low flow sampling pump installed (Phase II MSWLF Unit):	24 pumps	
Replacement of low flow pump:		40% of total pumps during postclosure period
Low flow sampling pump and associated apparatus :		\$1,500 per pump
Labor cost (estimate):		\$70 per pump
<b>Total low flow sampling pump maintenance cost:</b>		<b>\$500 per year</b>

Low flow sampling equipment maintenance costs, refer to note 3 on summary page.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**8. Groundwater and Surface Water Quality Monitoring and Reporting**

8a. Groundwater Sampling	\$5,500 per year
8b. Analysis	\$15,200 per year
8c. Water Quality Report	\$11,500 per year
<hr/>	
<b>Total Cost of Item 8</b>	<b>\$32,200 per year</b>

Assume:

- Conduct routine semiannual samplings for the wells in detection (background) monitoring.			
No. of points in detection (background) monitoring:	2 (from 2016 AWQR)		
- For the semi-annual event when Appendix II list sampling is collected (once every 5 years), no Appendix I list sampling is shown as it is included in the Appendix II list.			
No. of points in assessment/corrective action monitoring per 113.10(6)&(9):	23 (from 2016 AWQR-includes GU-3A)		
No. of leachate points requiring sampling:	5 from 2014 Optimization Report		
No. of remaining years for annual sampling:	14 years		
No. of remaining events for 5-year frequency Appendix II sampling:	4 times for remaining		14 years
No. of remaining events for 5-year frequency leachate Appendix II sampling:	4 times for remaining		14 years
- Item 8a.			
Estimated mobilization cost per sampling event:		\$500 per sampling event	
Frequency of mobilization:	2 times within		1 years
<u>Total mobilization cost:</u>		<u>\$1,000 per year</u>	
Estimated cost per sampling per point:		\$150 per sampling point	
Frequency of detection/assessment monitoring:	1 times within		1 years
<u>Total detection monitoring sampling cost:</u>		<u>\$4,500 per year</u>	
- Item 8b.			
Appendix I metals and TSS analytical cost:		\$235.00 per sample	
Frequency of background monitoring (Appendix I metals, TSS)	1 times within		1 years
Rate of duplicate samples:	10%		
<u>Total detection monitoring analytical cost:</u>		<u>\$517 per year</u>	
Appendix I and TSS analytical cost:		\$235.00 per sample	
Frequency of Appendix I sampling:	2 time within		1 years
Rate of duplicate samples:	10%		
<u>Total Appendix I analytical cost:</u>		<u>\$6,395 per year</u>	
Appendix II analytical cost:		\$1,036 per sample	
<u>Total Appendix II analytical cost:</u>		<u>\$8,290 per year over pc period</u>	
Note: Appendix I sampling is not analyzed when Appendix II sampling is required.			
- Item 8c.			
AWQR for the Phase I MSWLF unit cost:		\$7,500 per report	
SemiAWQR for the Phase I MSWLF unit cost:		\$4,000 per report	
Frequency of reporting (both AWQR and SemiAWQR):	1 time within		1 years

**9. Groundwater Monitoring Systems Performance Evaluations and Reports**

NA	\$0 per year
<hr/>	
<b>Total Cost of Item 9</b>	<b>\$0 per year</b>

Assume:

- Included in Item 8.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**10. Leachate Control Systems Maintenance**

10a. Leachate Well Replacement	\$5,000 per year
10b. Well Pump Repair and Replacement	\$7,200 per year
10c. Leachate Line Cleaning	\$5,480 per year
10d. Equipment Maintenance - Leachate Collection and Treatment System	\$22,500 per year
10e. Utilities - Leachate Collection and Treatment System	\$10,800 per year
10f. Quarterly Leachate Level Measurements	\$7,360 per year
<b>Total Cost of Item 10</b>	<b>\$58,340 per year</b>

Assume:

- Item 10a cost based on bid costs from similar projects.
  - Installation of gas/leachate extraction well (mobilization included): \$125 per foot
  - Average depths of gas/leachate extraction well: 100 feet
  - Gas/leachate extraction well replacement rate: 2 wells every 5 years
- Item 10b based on bid costs from similar projects.
  - Leachate extraction pump system (pump/counter/tubing) cost: \$3,600 EA
  - Pump replacement rate: 2 pumps every 1 years
- Item 10c. Cost provided by MWA.
  - Leachate line jet cleaning cost: \$16,434
  - Frequency of leachate line jet cleaning: 1 time within 3 years
- Item 10d.
  - Cost based on the leachate control system maintenance cost. \$90,000 is budgeted for FYE2018 for the 3rd party pump/telemetry maintenance costs (including Phase II GW control system and Phase I and Phase II leachate collection systems). Assume \$90,000 per year from year 2018 for total maintenance cost and assume 75% of the maintenance cost for leachate pumping equipment for the Phase I MSWLF unit. Assume \$30,000 per year beginning with year 2019 during the post-closure period for the total 3rd party pump/telemetry total maintenance cost and assume 75% of the maintenance cost for leachate pumping equipment beginning with year 2019 for the Phase I MSWLF unit leachate control system maintenance.
  - Equipment maintenance cost for 2018: \$90,000 per year for one year
  - Equipment maintenance cost after 2018: \$30,000 average per year
  - Equipment maintenance for the Phase I MSWLF unit leachate collection: 75%
  - Equipment maintenance for the Phase II MSWLF unit leachate collection: 20%
  - Equipment maintenance for the Phase II MSWLF unit GW control system: 50%
  - Phase I MSWLF unit leachate collection equipment maintenance cost: \$22,500 per year for pc period
- Item 10e.
  - Cost based on MWA's budget for the utilities cost for leachate collection.
  - Utility cost: \$14,400 per year
  - Utilized for the Phase I MSWLF unit leachate collection (assumed): 75.00%
  - Utilized for the Phase II MSWLF unit leachate collection (assumed): 20.00%
  - Utilized for the Phase II MSWLF unit GW control system (assumed): 50.00%
- Item 10f.
  - Quarterly leachate level measurements: \$1,840 per event

**11. Leachate Management, Transportation, and Disposal**

11a. Leachate Sampling	\$0 per year
11b. Leachate Recirculation	\$27,850 per year
11c. Leachate Transportation and Disposal	\$19,350 per year
<b>Total Cost of Item 11</b>	<b>\$47,200 per year</b>

Assume:

- Item 11a.
  - Refer to note 3 on summary page.
- Item 11b. Cost provided by MWA
  - Note: Remaining absorptive capacity of the in-place waste determined sufficient to absorb 100% of the MPE leachate.
  - Estimated generation from the Phase I MSWLF Unit: 5,661,333 gallons per year, first 3 years
  - Average annual leachate recirculation rate (Phase I leachate into Phase II): 5,461,333 gallons per year
  - Leachate recirculation labor/equipment/maintenance: \$27,850 per year
- Item 11c. Cost provided by MWA.
  - Leachate Transportation cost: \$45.77 per 1,000 gallons
  - Leachate disposal cost: \$51.00 per 1,000 gallons
  - Est. leachate requiring off-site disposal: 200,000 gallons per year average
  - Note: Majority of leachate generated from the Phase I MSWLF unit will be recirculated.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**12. Leachate Control Systems Performance Evaluations and Reports**

12a. Leachate Control System Performance Evaluation Report	\$3,500 per year
<b>Total Cost of Item 12</b>	<b>\$3,500 per year</b>

Assume:

- Item 12a.  
Estimated yearly cost for LCSPE report associated with Phase I: \$3,500 per year

**13. Engineering and Technical Services**

13a. Engineering and Technical Services	\$3,870 per year
13b. Site Inspection	\$4,000 per year
<b>Total Cost of Item 13</b>	<b>\$7,870 per year</b>

Assume:

- Item 13a.  
Estimated cost for engineering and technical services: 5% of postclosure care cost  
The postclosure care cost includes items 1, 2, 3, 4, 5, 7, and 10: \$77,330 per year
- Item 13b. Based on Table 3-1 of the Closure/Post Closure Plan  
Estimated cost for postclosure inspection: \$2,000 per event  
Frequency of inspections: 2 inspections every 1 years

**14. Legal, Financial, and Administrative Services**

14a. Legal, Financial, and Administrative Services	\$0 per year
<b>Total Cost of Item 14</b>	<b>\$0 per year</b>

Assume:

- Item 14a.  
Refer to note 3 on summary page.

**15. Financial Assurance, Accounting, Audits, and Reports**

15a. Annual financial assurance estimate and report	\$1,500 per year
15b. Annual financial assurance audit/assistance	\$0 per year
<b>Total Cost of Item 15</b>	<b>\$1,500 per year</b>

Assume:

- Item 15a.  
Financial assurance for PII PC cost estimate: \$1,500 per year
- Item 15b.  
Refer to note 3 on summary page for financial audit cost.



**ATTACHMENT D**

**MPE PHASE I MSWLF UNIT  
2024 CORRECTIVE ACTION COST ESTIMATE WORKSHEETS**

**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

<b>Task<sup>1</sup></b>	<b>Units<sup>2</sup></b>	<b>Cost Per Unit<sup>6</sup></b>		<b>Cost of Task</b>
1. Remedy Design and Installation: (00-2600-005)	1	\$0	lump sum	\$0
2. Remedy Engineering and Technical Services: (00-2600-005)	1	\$59,410	lump sum	\$59,410
3. Groundwater Monitoring Well Installation: (00-2600-005)	1	\$0	lump sum	\$0
4. Remedy Systems Maintenance: (00-2600-005) <sup>3</sup>	14	\$0	year	\$0
5. Remedy Systems Monitoring and Reporting: (00-2600-005) <sup>3</sup>	14	\$0	year	\$0
6. Groundwater and Surface Water Monitoring Systems Maintenance: (00-2600-005) <sup>3</sup>	14	\$570	year	\$7,980
7. Groundwater and Surface Water Quality Monitoring and Reporting: (00-2600-005) <sup>3</sup>	14	\$5,220	year	\$73,080
8. Engineering and Technical Services: (00-2600-005) <sup>3</sup>	14	\$0	year	\$0
9. Legal, Financial, and Administrative Services: (00-2600-005) <sup>3</sup>	14	\$0	year	\$0
10. Financial Assurance, Accounting, Audits, and Reports: (00-2600-005) <sup>3</sup>	14	\$0	year	\$0
11. Remedy Completion Certification and Documentation: (00-2600-005)	1	\$5,940	lump sum	\$5,940
12. Leachate Control Systems Performance Evaluations and Reports: 00-2600-003(L)	1	\$122,760	lump sum	\$122,760
<b>Total Cost of Corrective Action</b>				<b>\$269,170</b>

**Notes:**

<sup>1</sup> Selected remedy is continued source control (gas collection and control system/leachate extraction/enhanced attenuation) for the Phase I MSWLF unit.

<sup>2</sup> Calculations for each task are contained on the following pages.

<sup>3</sup> Duration of corrective action period is assumed to be the 30-year post-closure period for the Phase I MSWLF unit, which will end in year 2038.

Special Provisions- Closed Units, Item 5.q.1. of the current permit requires the remedy end date to be evaluated annually and adjusted if necessary.

<sup>4</sup> For the corrective action items covered under the Phase I/II MSWLF units postclosure fund for which no change in scope resulted from the addition of the corrective action, no additional funding is included within the corrective action financial assurance.

<sup>5</sup> For MWA use, items are coded corrective action (00-2600-005).

<sup>6</sup> Cost per Unit escalated per Adjustment of Cost Estimates for Inflation provided by IDNR for 2023 over 2022 within summary list above.

Unit pricing within below support tables include costs at the time of incorporation. The costs are inflated within the summary list above with cumulative inflation factors applied since the year incorporated into the estimate (i.e. unit pricing added in 2019 includes inflation factors from 2020 over 2019, 2021 over 2020, 2022 over 2021, and 2023 over 2022 within the summary "Cost Per Unit".

<sup>7</sup> Cost estimate performed March 2024 for FY 22-23.

**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**Corrective Action Costs:**

**1. Remedial System Design and Installation**

1a. Wetland, Sediment Basin, and Bioswale Design	\$0 lump sum	Comp. in 2019
1b. Wetland, Sediment Basin, and Bioswale Construction	\$0 lump sum	Comp. in 2019
1c. Leachate Extraction System Design	\$0 lump sum	
1d. Leachate Extraction System Installation	\$0 lump sum	
<b>Total Cost of Item 1</b>	<b>\$0 lump sum</b>	

Assume:

- GCCS has been installed and operational and is the responsibility of Waste Management (per contract).
- Gas migration control for the northwest portion of the Phase I MSWLF unit is proposed to consist of three wetlands, a sediment pond and bioswale - (Completed 2019)
- Infrastructure of the leachate extraction system has been installed and is operational.
- Item 1d (Installation of leachate extraction system was completed in 2013.)
  - Leachate extraction pump system (pump/counter/tubing) cost: \$3,700 EA
  - Telemetry equipment, transducer, and appurtenances cost: \$4,500 EA
  - Installation and SCADA update cost: \$1,100 EA
  - Number of additional leachate extraction pumping systems: 0 extraction wells

**2. Remedy Engineering and Technical Services**

2a. Construction Management	\$40,000 lump sum
2b. Review of Potential Environmental Covenants	\$10,000 lump sum
<b>Total Cost of Item 2</b>	<b>\$50,000 lump sum</b>

Assume:

- Item 2a.
  - Remedy has been installed and operational. Above costs have been included in the event additional measures are necessary.
- Item 2b.
  - Explore potential environmental covenant options for addressing remedy completion requirements.

**3. Groundwater Monitoring Well Installation**

3a. Monitoring Well Installations (Completed 2015)	\$0 lump sum
<b>Total Cost of Item 3</b>	<b>\$0 lump sum</b>

Assume:

- Corrective Action Monitoring Plan (CAMP) submitted on July 1, 2014. Approved by the Department in PA #26 dated January 26, 2015.

- Item 3a.

No. of additional wells required for corrective action monitoring network:	0	wells
Total well depth for installation:	120	FT
Installation cost:		\$50 per FT
<b>Total well installation cost:</b>		<b>\$6,000</b>
Well protection installation cost:		\$1,000 per well
<b>Total well protection installation cost:</b>		<b>\$0</b>
No. of additional wells requiring low flow sampling pump:	0	wells
Low flow sampling pump and associated apparatus :		\$1,500 per pump
Labor cost (estimate):		\$70 per pump
<b>Total low flow sampling pump cost:</b>		<b>\$0</b>

**4. Remedy System Maintenance**

4a. Subsurface Gas Migration Probes	\$0 per year
4b. Active Gas Wells	\$0 per year
4c. Energy Facility and Flare Operations	\$0 per year
4d. GCCS Piping Maintenance	\$0 per year
4e. Leachate Well Replacement	\$0 per year
4f. Well Pump Repair and Replacement	\$0 per year
4g. Leachate Line Cleaning	\$0 per year
4h. Equipment Maintenance - Leachate Collection and Treatment System	\$0 per year
4i. Utilities - Leachate Collection and Treatment System	\$0 per year
<b>Total Cost of Item 4</b>	<b>\$0 per year</b>

Assume:

- Items 4a through 4i.
  - Refer to note 4 on summary page.

**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**5. Remedy Systems Monitoring and Reporting**

5a. NSPS Surface Monitoring	\$0 per year
5b. Gas Monitoring Report	\$0 per year
5c. NSPS Reporting Requirements	\$0 per year
5d. NSPS Emission Fees	\$0 per year
5e. Methane Monitoring per IAC 113.9 (Structures and Subsurface)	\$0 per year
5f. Leachate Sampling	\$0 per year
5g. Leachate Recirculation	\$0 per year
5h. Leachate Transportation and Disposal	\$0 per year
5i. Leachate Control System Performance Evaluation Report	\$0 per year
<b>Total Cost of Item 5</b>	<b>\$0 per year</b>

Assume:

- Item 5a through 5i.  
Refer to note 4 on summary page.

**6. Groundwater and Surface Water Monitoring Systems Maintenance**

6a. Groundwater Monitoring Well Replacement/Repair (Corrective Action Monitoring Program)	\$380 per year
6b. Groundwater Sampling Pump and Equipment Maintenance (Corrective Action Monitoring Program)	\$100 per year
<b>Total Cost of Item 6</b>	<b>\$480 per year</b>

Assume:

- Item 6a. For the corrective action monitoring program in addition to the Phase I MSWLF unit HMSP monitoring network.

No. of wells:	5 wells	
Total monitoring well depth for abandonment:	128 FT	
Abandonment cost:		\$50 per FT
<b>Total well abandonment cost:</b>		<b>\$6,400</b>
Total well depth for installation:	128 FT	
Installation cost :		\$50 per FT
<b>Total well installation cost:</b>		<b>\$6,400</b>
Well protection removal cost:		\$250 per well
<b>Total well protection removal cost:</b>		<b>\$1,250</b>
Well protection installation cost:		\$1,000 per well
<b>Total well protection installation cost:</b>		<b>\$5,000</b>
Well replacement/repair:		2% per year during corrective action period

- Item 6b. Assume low flow sampling method will be utilized during the postclosure care period. For the corrective action monitoring program in addition to the Phase I MSWLF unit HMSP monitoring network.

No. of wells:	5 pumps	
Replacement of low flow pump:	40% of total pumps over total 30-year post-closure period	
Low flow sampling pump and associated apparatus:		\$1,500 per pump
Labor cost (estimate):		\$70 per pump
<b>Low flow sampling equipment maintenance costs, refer to note 3 on summary page.</b>		

**7. Groundwater and Surface Water Monitoring Systems Maintenance**

7a. Groundwater Sampling	\$750 per year
7b. Analysis	\$640 per year
7c. Water Quality Report	\$3,000 per year
<b>Total Cost of Item 7</b>	<b>\$4,390 per year</b>

Assume:

- Item 7a. For the corrective action monitoring program in addition to the Phase I MSWLF unit HMSP monitoring network.

Estimated mobilization cost per sampling event:		\$0 per mobilization (included in Phase 2)
Estimated cost per sampling per point:		\$150 per sampling point
No. of sampling points not in current HMSP:	5 sampling points	
Frequency of non-HMSP sampling:	1 times within 1 years	

- Item 7b. For the corrective action monitoring program in addition to the Phase I MSWLF unit HMSP monitoring network.

Arsenic in non-HMSP points	8 sampling points (includes surface water points)	
Cobalt in non-HMSP points:	7 sampling points (includes surface water points)	
Metals analytical cost:		\$9 per metal constituent
VOCs in non-HMSP points:	1 sampling points (includes surface water points)	
VOC analytical cost:		\$80 per sampling point
TOC in HMSP and non-HMSP points:	16 sampling points	
TOC analytical cost (includes \$5.00 prep fee and \$1.50 waste mgmt. fee):		\$23 per sampling point
<b>Rate of duplicate samples:</b>	<b>10%</b>	

- Item 7c.

AWQR for corrective action in addition to the Phase I MSWLF unit:		\$3,000 per report
Frequency of reporting (AWQR):	1	time within 1 years

**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPE Landfill Phase I MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**8. Engineering and Technical Services**

8a. Engineering and Technical Services	\$0 per year
8b. Inspection	\$0 per year
<b>Total Cost of Item 8</b>	<b>\$0 per year</b>

Assume:  
Refer to note 4 on summary page.

**9. Legal, Financial, and Administrative Services**

9a. Legal, Financial, and Administrative Services	\$0 per year
<b>Total Cost of Item 9</b>	<b>\$0 per year</b>

Assume:  
Refer to note 4 on summary page.

**10. Financial Assurance, Accounting, Audits, and Reports**

10a. Annual financial assurance estimate and report	\$0 per year
10b. Annual financial assurance audit	\$0 per year
<b>Total Cost of Item 10</b>	<b>\$0 per year</b>

Assume:  
Refer to note 4 on summary page.

**11. Remedy Completion Certification and Documentation**

11a. Remedy Completion Certification Documentation	\$5,000 lump sum
<b>Total Cost of Item 11</b>	<b>\$5,000 lump sum</b>

Assume:  
- Item 11a.  
Estimated remedy completion certification documentation cost: \$5,000 lump sum

**12. Remedy Decommissioning**

12a. Gas Collection and Control System Decommissioning	\$0 lump sum
12b. Leachate Extraction System Decommissioning	\$22,500 lump sum
12c. Groundwater Monitoring System Decommissioning	\$72,320 lump sum
12d. Decommissioning/Abandonment Documentation	\$8,500 lump sum
<b>Total Cost of Item 12</b>	<b>\$103,320 lump sum</b>

Assume:

- Item 12a. Decommissioning of GCCS (including extraction wells and piping) is the responsibility of Waste Management (per contract).
- Item 12b. Includes pumps in vertical extraction wells and pumps in Cells PIA East, PIA West, and PIB.
 

Removal of pumps and telemetry equipment cost (estimated):	\$250 EA
Number of leachate extraction pumping systems at the end of remedy:	50 extraction wells
<b>Total leachate extraction pumps removal cost:</b>	<b>\$12,500</b>
Abandonment/capping of leachate collection piping cost (estimated):	\$10,000 lump sum
- Item 12c. Includes groundwater monitoring wells in Phase I (24) and Corrective Action (5) monitoring network.
 

Removal of low flow sampling pumps cost (estimated 2 per hour):	\$35 EA
Number of low flow sampling pumps:	29 pumps
<b>Total low flow sampling pump removal cost:</b>	<b>\$1,015</b>
Total monitoring well depths for abandonment:	1,194 FT
Abandonment cost:	\$50 per FT
<b>Total well abandonment cost:</b>	<b>\$59,700</b>
- Item 12d.
 

No. of wells to be abandoned:	29 wells
Well protection removal cost (assumes disposal in Phase II at no cost):	\$400 per well
<b>Total well protection removal cost:</b>	<b>\$11,600</b>

Decommissioning/Abandonment Documentation of GCCS is responsibility of Waste Management (per contract).		
Decommissioning/Abandonment Documentation of Leachate Control System:	\$5,000	lump sum
Decommissioning/Abandonment Documentation of GW Monitoring Wells:	\$3,500	lump sum

**SECTION II**

**MPW FINANCIAL ASSURANCE REPORT FORM  
ASSOCIATED COST ESTIMATES**



## Municipal Solid Waste Sanitary Landfill Financial Assurance Report Form

### SECTION 1: FACILITY INFORMATION

*(please print or type)*

#### Information Requested

Facility Name: METRO PARK WEST LANDFILL Permit Number: 08-SDP-03-84P

Permitted Agency/Entity: METRO WASTE AUTHORITY

### SECTION 2: CLOSURE/POSTCLOSURE OR CORRECTIVE ACTION COST ESTIMATES

Information Requested	Cost Estimate	Date of Cost Estimate
Updated Closure Cost Estimate	\$ 2,758,860	3/8/2024
Updated Postclosure Cost Estimate	\$ 2,173,200 (Boone) \$ 154,990 (Greene)	3/8/2024
Initial or Updated Corrective Action Cost Estimate	\$ 83,040	3/8/2024

\*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	284,766
Amount of waste disposed of at the facility during the prior year	47,587

### SECTION 4: PROOF OF COMPLIANCE

#### Publicly Owned Municipal Solid Waste Landfills

*(ATTACH AUDIT REPORT)*

Owner's Most Recent Annual Audit Report

Prepared by: DENMAN & COMPANY, LLP

For fiscal year ending: JUNE 30, 2024

#### 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**

<b>Type and Value of Financial Assurance Instrument(s)</b>	<i>(ATTACH INSTRUMENT(S))</i>
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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"	OCTOBER 4, 2004	Closure <input checked="" type="checkbox"/> Postclosure <input checked="" type="checkbox"/> Corrective Action <input type="checkbox"/>	\$ 777,401
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"	MARCH 2009	Closure <input checked="" type="checkbox"/> Postclosure <input checked="" type="checkbox"/> Corrective Action <input type="checkbox"/>	\$ 4,392,689

\*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**

<b>Check Which Applies:</b> <input type="checkbox"/> New Mechanism <input checked="" type="checkbox"/> 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>	\$ 1,869,285	\$ 2,253,276	\$ 129,911
Postclosure Account Balance <i>(see formula below)</i>	\$ 1,996,464	\$ 2,139,413	\$
Or			
Dedicated Fund Balance <i>(see formula below)</i>	\$	\$	\$
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

<p>Closure  CE = (\$2,758,860 + \$2,173,200 + \$154,990 + \$83,040) = \$5,170,090  CB = (\$2,253,276 + \$2,139,413) = \$ 4,392,689  TR = 47,587 TONS  RPC: 284,766 TONS    (\$5,170,090- \$4,392,689) x 47,587 TONS / 284,766 TONS = \$ 129,911</p>	<p>Postclosure  INCLUDED IN CLOSURE CALCULATIONS</p>
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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: MICHAEL MCCOY Title: EXECUTIVE DIRECTOR

Agency/Entity: METRO WASTE AUTHORITY

Address: 300 EAST LOCUST, SUITE 100

City: DES MOINES State: IOWA Zip: 50309

Telephone: 515-323-6535 Fax: 515-244-9477

Email Address: mmc@mwatoday.com

Signature of Official:  Date: 3/18/2024

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



March 8, 2024

Mr. Andrew Phillips  
Metro Waste Authority  
Metro Park East Landfill Office  
12181 NE University Avenue  
Mitchellville, Iowa 50169

RE: 2024 Closure, Post-Closure, and Corrective Action Cost Estimates  
Metro Park West Landfill  
Permit No. 08-SDP-03-84P

Dear Mr. Andrew Phillips,

We have updated the closure and post-closure cost estimates for the Boone County municipal solid waste landfill (MSWLF) unit and the post-closure and corrective action cost estimates for the Greene County MSWLF unit to be included in the 2024 financial assurance reports submittal on the Metro Park West (MPW) Landfill. The detailed cost estimates for the MPW Landfill Boone County and Greene County MSWLF units are included in the Attachments. The cost estimates are summarized in the table below.

**MPW Landfill – 2024 Financial Assurance Cost Estimate Summary**

<b>Cost Estimate Item</b>	<b>Estimate</b>
Boone County MSWLF Unit - Closure	\$ 2,758,860
Boone MSWLF Unit – Post-Closure	\$ 2,173,200
Greene County MSWLF Unit – Post-Closure	\$ 154,990
Greene County MSWLF Unit – Corrective Action	\$ 83,040
<b>Total</b>	<b>\$ 5,170,090</b>

If you have any questions or comments regarding these cost estimates, please contact me at (402) 208-0662 or Katie Kinley at (402) 392-6980.

Sincerely,  
HDR Engineering, Inc.

Katie Kinley, P.E.  
Environmental/Civil Engineer

CC: MPW Landfill  
Attachments: Cost Estimates





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

*Katie Kinley*  
Katie Kinley, P.E.

3/8/2024

Date

License number P26021

My license renewal date is December 31, 2025

Pages or sheets covered by this seal:

2024 Closure, Post Closure, and Corrective Action Cost Estimate Worksheets:  
Attachments E, F, G, and H.

**ATTACHMENT E**

**MPW BOONE COUNTY MSWLF  
2024 CLOSURE COST ESTIMATE WORKSHEETS**

**Fiscal Year 22-23 Closure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

<b>Task<sup>1</sup></b>	<b>Units</b>	<b>Cost Per Unit<sup>4</sup></b>		<b>Cost of Task</b>
1. Closure and Postclosure Plan Document Revisions	1	\$11,880	lump sum	\$11,880
2. Site Preparation, Earthwork, and Final Grading <sup>2</sup>	15.02	\$10,310	per acre	\$154,860
3. Drainage Control Culverts, Piping, and Structures <sup>2</sup>	15.02	\$2,280	per acre	\$34,250
4. Erosion Control Structures, Sediment Ponds, and Terraces <sup>2</sup>	15.02	\$4,160	per acre	\$62,480
5. Final Cap Construction <sup>2</sup>	15.02	\$86,470	per acre	\$1,298,780
6. Cap Vegetation Soil Placement <sup>2</sup>	15.02	\$10,340	per acre	\$155,310
7. Cap Seeding, Mulching, and Fertilizing <sup>2,3</sup>	18.02	\$3,920	per acre	\$70,640
8. Monitoring Well, Piezometer, and Gas Control Modifications	1	\$614,060	lump sum	\$614,060
9. Leachate System Cleanout and Extraction Well Modifications	1	\$8,160	lump sum	\$8,160
10. Monitoring Well Installations and Abandonments	0	\$0	lump sum	\$0
11. Facility Modifications to Effect Closed Status	1	\$1,260	lump sum	\$1,260
12. Engineering and Technical Services	1	\$326,030	lump sum	\$326,030
13. Legal, Financial, and Administrative Services	1	\$21,150	lump sum	\$21,150
14. Closure Compliance Certifications and Documentation	1	\$0	lump sum	\$0
<b>Total Estimated Cost of Closure</b>				<b>\$2,758,860</b>

**Notes:**

<sup>1</sup> Task items based on the list from IAC 567-113.14(3)"c"(6). Calculations for each task or contained on the following pages.

<sup>2</sup> Current open area requiring final cover (Cells A, B, C, and D): **15.02 acres**

<sup>3</sup> Current approximate borrow area: **3 acres**

<sup>4</sup> Cost per Unit escalated per Adjustment of Cost Estimates for Inflation provided by IDNR for 2023 over 2022 within summary list above.

Unit pricing within below support tables include costs at the time of incorporation. The costs are inflated within the summary list above with cumulative inflation factors applied since the year incorporated into the estimate (i.e. unit pricing added in 2019 includes inflation factors from 2020 over 2019, 2021 over 2020, 2022 over 2021, and 2023 over 2022 within the summary "Cost Per Unit".

**Fiscal Year 22-23 Closure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**Closure Costs Tasks:**

**1. Closure and Postclosure Plan Document Revisions**

1a. Closure and Postclosure Plan Document Revisions	\$10,000 lump sum
<b>Total Cost of Item 1</b>	<b>\$10,000 lump sum</b>

Assume:

- Refinements to the current permitted Plan.

**2. Site Preparation, Earthwork, and Final Grading**

2a. Mobilization/Demobilization	\$4,200 per acre
2b. Site Preparation	\$4,480 per acre
<b>Total Cost of Item 2</b>	<b>\$8,680 per acre</b>

Assume:

- Items 2a and 2b based on bid prices from similar projects.
- Item 2a

Unit cost based on bid prices from similar projects: \$4,200 per acre

- Item 2b includes site clearing, stripping of soils, establishing construction grade using existing intermediate cover soils within limits of cap construction, and erosion and sediment control. \$4,480 per acre

**3. Drainage Control Culverts, Piping, and Structures**

3a. Letdown Structures	\$1,320 per acre
3b. Drainage Layer Outlet Structure	\$600 per acre
<b>Total Cost of Item 3</b>	<b>\$1,920 per acre</b>

Assume:

- Items 3a and 3b based on bid prices from similar projects.
- Item 3a also includes quantity for terrace tie-in, rip rap outfall, and rock check dams.

Unit cost based on 2019 RS Means and bid prices from similar projects: \$65 per ton  
 Approx. tons per LF: 6.1 tons per LF  
 Boone Cells A, B, C, and D MSWLF units letdown structure approx. length: 50 LF  
 For closure of the Boone Cells A, B, C, and D MSWLF units: 305 ton  
 Current area requiring final cover: 15.02 acres

- Item 3b.

Unit cost based on bid prices from similar projects: \$850 each  
 Average structures required: 0.7 per acre

**Fiscal Year 22-23 Closure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**4. Erosion Control Structures, Sediment Ponds, and Terraces**

4a. Soil Terrace and Diversion Berms	\$1,650 per acre
4b. Sediment Ponds	\$0 per acre
4c. Erosion Control/Turf - Terraces	\$1,260 per acre
4d. Silt Fences	\$590 per acre
<hr/>	
<b>Total Cost of Item 4</b>	<b>\$3,500 per acre</b>

Assume:

- Items 4a and 4c based on bid prices from similar projects.
- Item 4a.
  - Boone Cells A, B, C, and D MSWLF units terrace approx. length: 1,550 LF
  - Current area requiring final cover: 15 acres
  - Unit cost based on general terrace size and costs from similar projects: \$16 per LF
- Item 4b.
  - Sedimentation ponds existing prior to closure.
- Item 4c.
  - Boone Cells A, B,C, and D MSWLF units terrace approx. length: 1,550 LF
  - Approx. amount of terrace: 2.44 SY per LF
  - For closure of the Boone Cells A, B, and C MSWLF units: 3,782 SY
  - Unit cost based on 2019 RS Means and bid prices from similar projects: \$5.00 per SY
- Item 4d
  - Approximate length of silt fence (assume twice terrace length): 3,100 LF
  - Unit cost based on bid cost from similar projects: \$2.85 per LF

**5. Final Cap Construction**

5a. 18 inches Recompacted Clay Layer (includes 20% for shrinkage)	\$14,520 per acre
5b. HDPE Geomembrane Liner	\$28,185 per acre
5c. Drainage Composite	\$28,750 per acre
5d. Side Slope Termination	\$1,320 per acre
<hr/>	
<b>Total Cost of Item 5</b>	<b>\$72,775 per acre</b>

Assume:

- Items 5a through 5d based on bid prices from similar projects and assumes soils on-site.
- Item 5a.
  - Unit cost based on bid prices from similar projects: \$5.00 per CY
  - Volume per acre (includes add'l 20% for shrinkage) 2,904 CY per acre
- Item 5b.
  - Unit cost based on bid prices from similar projects: \$0.70 per sq. ft
  - Area per acre 43,560 feet per acre
- Item 5c.
  - Unit cost based on bid prices from similar projects: \$0.66 per sq. ft
  - Area per acre 43,560 feet per acre
- Item 5d
  - Unit cost based on bid prices from similar projects: \$6.50 per LF
  - Boone County MSWLF unit anchor trench approx. length: 3,050 LF
  - Current area requiring final cover: 15.02 acres



**Fiscal Year 22-23 Closure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**6. Cap Vegetative Soil Placement**

6a. 24 inches Erosion Layer (includes 10% for shrinkage)	\$8,700 per acre
<b>Total Cost of Item 6</b>	<b>\$8,700 per acre</b>

Assume:

- Item 6a based on bid prices from similar projects and assumes soils are on-site.	
Unit cost based on bid prices from similar projects:	\$2.45 per CY
Volume per acre (includes 10% shrink)	3,549 CY per acre

**7. Cap Seeding, Mulching, and Fertilizing**

7a. Revegetation	\$3,300 per acre
<b>Total Cost of Item 7</b>	<b>\$3,300 per acre</b>

Assume:

- Item 7a based on bid prices from similar projects.	
Unit cost based on bid prices from similar projects:	\$3,000 per acre
Current area requiring final cover:	15.02 acres
Plus Area needing revegetation outside of the final cover:	10% of the required final cover
Total number acres for seeding:	16.52 acres

**8. Monitoring Well, Piezometer, and Gas Control Modifications**

8a. Monitoring Well Modifications	\$0 lump sum
8b. Piezometer Modifications	\$0 lump sum
8c. Gas Control Modifications - Geocomposite Gas Collection Layer	\$431,820 lump sum
8d. Gas Control Modifications - Gas Collection Piping	\$70,000 lump sum
8e. Gas Control Modifications - Vents	\$15,000 lump sum
<b>Total Cost of Item 8</b>	<b>\$516,820 lump sum</b>

Assume:

- Items 8a and 8b.	
No monitoring wells or piezometer modifications needed at the time of closure. No new wells at closure.	
- Item 8c based on bid prices from similar projects.	
Unit cost based on bid prices from similar projects:	\$0.66 per sq. ft
Area per acre	43,560 square feet per acre
Area of landfill requiring gas control	15.02 acres
- Item 8d based on bid prices from similar projects.	
Unit cost based on bid prices from similar projects:	\$35.00 per LF
Boone County MSWLF unit gas piping approx. length:	2,000 LF
- Item 8e based on bid prices from similar projects.	
Unit cost:	\$1,000 per vent
Approximate quantity:	15 EA

**Fiscal Year 22-23 Closure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**9. Leachate System Cleanout and Extraction Well Modifications**

9a. Cleanout Extension	\$1,620 lump sum
9b. LFG Extraction Wellhead/Valve FML Penetration	\$5,250 lump sum
<hr/>	
<b>Total Cost of Item 9</b>	<b>\$6,870 lump sum</b>

Assume:

- Item 9a
  - Unit cost based on bid prices from similar projects: \$270 EA
  - For Cells A, B,C, and D: 6 cleanouts
- Item 9b based on adding 3 LFG extraction wellheads and valves.
  - Unit cost based on bid cost from similar projects: \$1,750 EA
  - For Cells A, B,C, and D: 3 points

**10. Monitoring Well Installations and Abandonments**

10a. Monitoring Well Installations and Abandonments	\$0 lump sum
<hr/>	
<b>Total Cost of Item 10</b>	<b>\$0 lump sum</b>

Assume:

- No monitoring well installation or abandonment needed at the time of closure.

**11. Facility Modifications to Effect Closed Status**

11a. Signs Modification/Removal	\$1,060 lump sum
<hr/>	
<b>Total Cost of Item 11</b>	<b>\$1,060 lump sum</b>

Assume:

- Item 11a.
  - Number of signs 2 signs
  - Estimate cost of primary signs at: \$530 per sign

**12. Engineering and Technical Services**

12a. Bid Documents and Letting	\$53,300 lump sum
12b. Testing	\$35,500 lump sum
12c. Construction Observation	\$177,600 lump sum
12d. Surveying	8,000 lump sum
<hr/>	
<b>Total Cost of Item 12</b>	<b>\$274,400 lump sum</b>

Assume:

- Cost for Items 12a, 12b, and 12c based on % of estimated closure cost (items 2 through 7), 3%, 2%, and 10%, respectively.
- Item 12d.
  - Surveying \$530 per acre
  - Acres 15 acres

**Fiscal Year 22-23 Closure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**13. Legal, Financial, and Administrative Services**

13a. Legal, Financial, and Administrative Services	\$17,800 lump sum
<b><i>Total Cost of Item 13</i></b>	<b>\$17,800 lump sum</b>

Assume:

- Based on 1% of estimated closure cost (items 2 through 7).

**14. Closure Compliance Certifications and Documentation**

14a. Closure Certification Document	\$0 lump sum
<b><i>Total Cost of Item 14</i></b>	<b>\$0 lump sum</b>

Assume:

- Included in Item 12c.

**ATTACHMENT F**

**MPW BOONE COUNTY MSWLF  
2024 POST-CLOSURE COST ESTIMATE WORKSHEETS**

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

<b>Task<sup>1</sup></b>	<b>Units (years)</b>	<b>Cost Per Unit / Year<sup>3</sup></b>	<b>30 Year Cost</b>
1. General Site Facilities, Access Roads, and Fencing Maintenance	30	\$1,970	\$59,100
2. Cap and Vegetative Cover Maintenance	30	\$9,830	\$294,900
3. Drainage and Erosion Control Systems Maintenance	30	\$2,000	\$60,000
4. Groundwater to Waste Separation Systems Maintenance	30	\$580	\$17,400
5. Gas Control Systems Maintenance	30	\$270	\$8,100
6. Gas Control Systems Monitoring and Reporting	30	\$3,940	\$118,200
7. Groundwater and Surface Water Monitoring Systems Maintenance <sup>4</sup>	30	\$3,470	\$104,100
8. Groundwater and Surface Water Quality Monitoring and Reporting <sup>4</sup>	30	\$23,630	\$708,900
9. Groundwater Monitoring Systems Performance Evaluations and Reports	30	\$0	\$0
10. Leachate Control Systems Maintenance	30	\$9,510	\$285,300
11. Leachate Management, Transportation, and Disposal	30	\$3,980	\$119,400
12. Leachate Control Systems Performance Evaluations and Reports	30	\$3,560	\$106,800
13. Engineering and Technical Services	30	\$4,470	\$134,100
14. Legal, Financial, and Administrative Services	30	\$1,190	\$35,700
15. Financial Assurance, Accounting, Audits, and Reports	30	\$4,040	\$121,200
<b>Annual Average Post-Closure Cost</b>		<b>\$72,440</b>	
<b>Total Cost of Post-Closure Care</b>			<b>\$2,173,200</b>

Notes:

<sup>1</sup> Task items based on the list from IAC 567-113.14(4)"c"(6). Calculations for each task or contained on the following pages.

<sup>2</sup> Current total area requiring postclosure care:

**29.1 acres**

<sup>3</sup> Cost per Unit / Year escalated per Adjustment of Cost Estimates for Inflation provided by IDNR for 2023 (1.026 Inflation Factor) within summary list above.

Unit pricing within below support tables include costs at the time of incorporation. The costs are inflated within the summary list above with cumulative inflation factors applied since the year incorporated into the estimate (i.e. unit pricing added in 2019 includes inflation factors from 2020 over 2019, 2021 over 2020, 2022 over 2021, and 2022 over 2023 within the summary "Cost Per Unit").

<sup>4</sup> The Greene Co. and Boone Co. HMSP's were merged into one HMSP. Groundwater and surface monitoring systems maintenance, monitoring, and reporting for the HMSP are included in Boone County Post-Closure Cost Estimates and were removed from the Greene County Post-Closure Cost Estimate.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**Post-Closure Costs Tasks:**

**1. General Site Facilities, Access Roads, and Fencing Maintenance**

1a. Sign Replacement		\$50 per year	
1b. Roadway Maintenance		\$830 per year	
1c. Fence Repair and Replacement		\$530 per year	
1d. Survey Monuments		\$250 per year	
<b>Total Cost of Item 1</b>		<b>\$1,660 per year</b>	

Assume:

- Item 1a.			
Estimated cost of sign replacement, from Closure Cost:		\$530	
Frequency of sign replacement:	1 time within		10 years
- Item 1b based on bids from similar projects.			
Roadway Aggregate and Structural Fill:		\$12.00 per SY	
Access roads:	1,550 LF		
Average road width 20 feet:	2.2 SY per LF		
Yearly estimated gravel replenish at:	2% of the access road area		
Total Boone County MSWLF unit road area	68.8 SY		
- Item 1c based on costs from local contractors.			
Length of perimeter chain-link fence (existing):	1,769 LF		
Length of perimeter barbwire fence (existing):	1,550 LF		
Yearly estimated fence repair:	1% of the total		
Chain-link fence repair cost, basis 2019 RS Means:		\$27 per LF	
Barb-wire fence repair cost:		\$3 per LF	
- Item 1d.			
Estimated inspection cost, assume 1/2 day with travel:		\$500 per event	
Inspected biennially per IAC 113.8(2)"a"(5):	1 every		2 years

**2. Cap and Vegetative Cover Maintenance**

2a. Final Cover Repair		\$3,450 per year	
2b. Reseeding		\$2,620 per year	
2c. Mowing		\$1,810 per year	
2d. Weed and Tree Control		\$390 per year	
<b>Total Cost of Item 2</b>		<b>\$8,270 per year</b>	

Assume:

- Item 2a based on bid prices from similar projects.			
- Item 2a			
Unit cost per CY, from Closure Costs erosion layer:		\$2.45 per CY	
Final cover area (Boone County MSWLF unit):	29 acres		
Estimated repair depths:	1 FT		
Yearly estimated final cover repair, average annual over 30 years:	3% of the total area		
For postclosure of the Boone County MSWLF unit:	1,408 CY		
- Item 2b based on bid prices from similar projects.			
Unit cost from Closure Cost revegetation price:		\$3,000 per acre	
Final cover area (Boone County MSWLF unit):	29 acres		
Yearly estimated final cover repair at:	3% of the total area		
For postclosure of the Boone County MSWLF unit:	0.87 acres		
- Item 2c.			
Mobilization		\$500 per mobilization	
Unit mowing cost (high end typical)		\$45 per acre	
Frequency of mowing event:	1 time within		1 years
- Item 2d.			
Estimated cost per weed and tree control event, 8 hours labor + expenses:		\$780	
Frequency of weed and tree control event:	1 time within		2 years

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**3. Drainage and Erosion Control Systems Maintenance**

3a. Ditch Cleaning		\$750 per year	
3b. Culverts Cleaning and Repair		\$500 per year	
3c. Sedimentation Pond Cleaning		\$430 per year	
<b>Total Cost of Item 3</b>		<b>\$1,680 per year</b>	

Assume:

- Item 3a.			
Estimated crew at:		\$450 per crew hour	
Frequency of ditch cleaning:	50 hours total for		30 years
- Item 3b.			
Two man jet truck at:		\$250 per crew hour	
No. of hours per event:	6 hours every		3 years
- Item 3c.			
Estimated cost per cleaning event:		\$50,000 per acre	
Size of sedimentation pond:	0.26 acres		
Frequency of cleaning sedimentation ponds:	1 time within		30 years

**4. Groundwater to Waste Separation Systems Maintenance**

4c. Utilities - Groundwater Control System		\$490 per year	
<b>Total Cost of Item 4</b>		<b>\$490 per year</b>	

Assume:

- Item 4a based on bid prices from similar projects.			
Unit cost per LF :		\$4.28 per LF	
Groundwater underdrain line for the Boone County MSWLF unit:	3,415 LF		
Frequency of groundwater underdrain line jet cleaning:	1 times within		30 years

**5. Gas Control Systems Maintenance**

5a. Probes		\$230 per year	
5b. Gas Migration Cutoff Trench		\$0 per year	
<b>Total Cost of Item 5</b>		<b>\$230 per year</b>	

Assume:

- Item 5a.			
No. of probes in monitoring network:	2 probes		
Total monitoring well depth for abandonment:	45 FT		
Abandonment cost:		\$50 per FT	
Total well abandonment cost:		\$2,250	
Total well depth for installation:	45 FT		
Installation cost :		\$50 per FT	
Total well installation cost:		\$2,250	
Well protection removal cost:		\$250 per probe	
Total well protection removal cost:		\$500	
Well protection installation cost:		\$1,000 per well	
Total well protection installation cost:		\$2,000	
Well replacement/repair:	2% per year during postclosure period		

- Item 5b. Migration cutoff trench will be passively vented. No maintenance required.

**6. Gas Control Systems Monitoring and Reporting**

6a. Methane Gas Monitoring		\$2,320 per year	
6b. Gas Monitoring Report		\$1,000 per year	
<b>Total Cost of Item 6</b>		<b>\$3,320 per year</b>	

Assume:

- Item 6a.			
Methane gas monitoring		\$580 per event	
Monitoring frequency:	4 times per year for		30 years
- Item 6b.			
Estimated yearly cost for gas monitoring report:		\$1,000 per year	

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**7. Groundwater and Surface Water Monitoring Systems Maintenance**

7a. Groundwater Monitoring Well Replacement/Repair	\$2,340 per year
7b. Groundwater Sampling Pump and Equipment Maintenance	\$580 per year
<b>Total Cost of Item 7</b>	<b>\$2,920 per year</b>

Assume:

- Item 7a.

No. of wells in monitoring network:	10 wells	
Total monitoring well depth for abandonment:	292 FT	
Abandonment cost:		\$50 per FT
<b>Total well abandonment cost:</b>		<b>\$14,580</b>
Well protection removal cost:		\$250 per well
<b>Total well protection removal cost:</b>		<b>\$2,500</b>
Well protection installation cost:		\$1,000 per well
<b>Total well protection installation cost:</b>		<b>\$10,000</b>

Well replacement/repair:	2% per year during postclosure period	
- Item 7b. Assume low flow sampling method will be utilized during the postclosure care period.		
No. of low flow sampling pumps installed:	10 pumps	
Replacement of low flow pump:	60% of total pumps during	30 years
Low flow sampling pump and associated apparatus:		\$1,500 per pump
Labor cost (estimate):		\$70 per pump
<b>Total low flow sampling pump maintenance cost:</b>		<b>\$310 per year</b>
Low flow sampling equipment (MP15, MP30-150, and MP20):		\$9,000 total capital cost
Maintenance including calibration:		3% of capital cost per year
<b>Total low flow sampling equipment maintenance cost:</b>		<b>\$270 per year</b>

**8. Groundwater and Surface Water Quality Monitoring and Reporting**

8a. Groundwater Sampling	\$3,400 per year
8b. Analysis	\$4,990 per year
8c. Water Quality Report	\$11,500 per year
<b>Total Cost of Item 8</b>	<b>\$19,890 per year</b>

Assume:

- Conduct routine semiannual samplings for the wells in monitoring program per 113.10(5).		
No. of points in the detection monitoring program per 113.10(5):	4	
Note: UD-B is treated as leachate		
- For the semi-annual event when Appendix II list sampling is collected (annually for 2 years, then once every 5 years), no Appendix I list sampling is shown as Appendix I constituents are included in Appendix II list.		
No. of points in assessment/pre-CA monitoring per 113.10(6):	4 wells	
No. of remaining events for 5-year frequency Appendix II sampling:	6 times for post-closure	30 years
No. of wells requiring annual Appendix II sampling:	1	
No. of remaining events for annual Appendix II sampling:	0	
- Item 8a.		
Estimated mobilization cost per sampling event:		\$500 per sampling event
Frequency of mobilization:	2 times within	1 years
<b>Total mobilization cost:</b>		<b>\$1,000 per year</b>
Estimated cost per sampling per point:		\$150 per sampling point
Frequency of detection/assessment monitoring:	2 times within	1 years
<b>Total detection monitoring sampling cost:</b>		<b>\$2,400 per year</b>



**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

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- Item 8b.			
Frequency of Appendix I sampling:	2 times within		1 years
Appendix I analytical cost:		\$235 per sample	
Rate of duplicate samples:		10%	
<b>Total Appendix I analytical cost:</b>		<b>\$3,950 per year</b>	
<hr/>			
Appendix II analytical cost:		\$1,036 per sample	
<b>Total Appendix II analytical cost:</b>		<b>\$1,040 per year</b>	
<hr/>			
- Item 8c.			
AWQR for the Boone County MSWLF unit cost:		\$7,500 per report	
SemiAWQR for the Boone County MSWLF unit cost:		\$4,000 per report	
Frequency of reporting (both AWQR and SemiAWQR):	1 time within		1 years

**9. Groundwater Monitoring Systems Performance Evaluations and Reports**

NA		\$0 per year	
<b>Total Cost of Item 9</b>		<b>\$0 per year</b>	

Assume:

- Included in Item 8c.

**10. Leachate Control Systems Maintenance**

10a. Leachate Line Cleaning		\$5,000 per year	
10b. Equipment Maintenance and Utilities - Leachate Collection		\$3,000 per year	
<b>Total Cost of Item 10</b>		<b>\$8,000 per year</b>	

Assume:

- Item 10a.

Unit cost per LF :		\$4.28 per LF	
Leachate lines associated with the Boone County MSWLF unit:		3,505 LF	
Frequency of leachate line jet cleaning:	1 time within		3 years

- Item 10b. Cost provided by MWA.

Estimated pump maintenance and utilities:		\$3,000 per year	
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**11. Leachate Management, Transportation, and Disposal**

11a. Leachate Transportation and Disposal		\$3,350 per year	
11b. Leachate Recirculation		\$0 per year	
<b>Total Cost of Item 11</b>		<b>\$3,350 per year</b>	

Assume:

- Item 11a.

Leachate disposal cost - (MWA):		\$11.28 per 1,000 gallons	
Leachate transportation cost (MWA):		\$51.00 per 1,000 gallons	
Estimate generation (open condition):	20,768 gallons per acre per yr, first yrs		3 years
Note: (HELP model output, Appendix 19D of the 2015 Permit Renewal Application)			
Assume percentage of leachate is recirculated.	10%		
Est. generation from the Cells A, B, C, and D (stabilized condition):	3 gallons per acre per yr, for #		27 years
Note: (HELP model output, Appendix 19D of the 2015 Permit Renewal Application)			
Current lined area requiring final cover (Cells A, B, C, and D):	15.02 acres		
<b>Total cost from composite cell (Cells A, B, C, and D):</b>		<b>\$1,750 per year</b>	
<hr/>			
Estimate generation from the unlined areas:	91,250 gallons per acre per year		
Note: Assume leachate generation of 250 gallons/acre/day (page 4, 1998 Horizontal Expansion Plan, March 1999).			
Unlined area (Boone Greene County MSWLF unit North Area):	14.10 acres		
Assumed leachate collection rate from the toe drains:	2% of the total leachate generation		
<b>Total cost from unlined areas (Boone County MSWLF unit):</b>		<b>\$1,600 per year</b>	
<hr/>			

- Item 11b.

Assume no leachate recirculation.

Leachate recirculation equipment / piping maintenance (estimate):		\$0 per year	
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**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Boone County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**12. Leachate Control Systems Performance Evaluations and Reports**

12a. Leachate Control System Performance Evaluation Report	\$3,000 per year
<b>Total Cost of Item 12</b>	<b>\$3,000 per year</b>

Assume:

- Item 12a. Estimated yearly cost for LCSPE report	\$3,000 per year
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**13. Engineering and Technical Services**

13a. Engineering and Technical Services	\$1,160 per year
13b. Annual Site Inspection	\$2,600 per year
<b>Total Cost of Item 13</b>	<b>\$3,760 per year</b>

Assume:

- Item 13a. Estimated cost for engineering and technical services:	5% of postclosure care cost		
The postclosure care cost includes items 1, 2, 3, 4, 5, 7, and 10:		\$23,250 per year	
- Item 13b. Based on Table 3-1 of the Closure/Post Closure Plan			
Estimated cost for postclosure inspection:		\$1,000 per event	
Inspection frequency:	12 event per year for		1 years
Inspection frequency:	4 event per year for		4 years
Inspection frequency:	2 event per year for		25 years

**14. Legal, Financial, and Administrative Services**

14a. Legal, Financial, and Administrative Services	\$1,000 per year
<b>Total Cost of Item 14</b>	<b>\$1,000 per year</b>

Assume:

- Item 14a. Estimated yearly costs:	\$1,000 per year
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**15. Financial Assurance, Accounting, Audits, and Reports**

15a. Annual financial assurance estimate and report	\$1,000 per year
15b. Annual financial assurance audit/assistance	\$2,400 per year
<b>Total Cost of Item 15</b>	<b>\$3,400 per year</b>

Assume:

- Item 15a. Estimated yearly costs to update post-closure cost estimates:	\$1,000 per year
- Item 15b. Financial/administrative cost:	\$120 per hour
Estimate:	20 hours per year

**ATTACHMENT G**

**MPW GREENE COUNTY MSWLF  
2024 POST-CLOSURE COST ESTIMATE WORKSHEETS**

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

Task <sup>1</sup>	Units <sup>2</sup>	Cost Per Unit / Year <sup>5</sup>	Remaining Post-Closure Care Cost
1. General Site Facilities, Access Roads, and Fencing Maintenance	11	\$0	\$0
2. Cap and Vegetative Cover Maintenance <sup>4</sup>	11	\$2,710	\$29,810
3. Drainage and Erosion Control Systems Maintenance	11	\$0	\$0
4. Groundwater to Waste Separation Systems Maintenance	11	\$0	\$0
5. Gas Control Systems Maintenance	11	\$0	\$0
6. Gas Control Systems Monitoring and Reporting	11	\$0	\$0
7. Groundwater and Surface Water Monitoring Systems Maintenance <sup>6</sup>	11	\$0	\$0
8. Groundwater and Surface Water Quality Monitoring and Reporting <sup>6</sup>	11	\$0	\$0
9. Groundwater Monitoring Systems Performance Evaluations and Reports <sup>6</sup>	11	\$0	\$0
10. Leachate Control Systems Maintenance	11	\$1,020	\$11,220
11. Leachate Management, Transportation, and Disposal	11	\$7,390	\$81,290
12. Leachate Control Systems Performance Evaluations and Reports	11	\$1,780	\$19,580
13. Engineering and Technical Services	11	\$0	\$0
14. Legal, Financial, and Administrative Services	11	\$0	\$0
15. Financial Assurance, Accounting, Audits, and Reports	11	\$1,190	\$13,090
<b>Annual Average Post-Closure Cost</b>		<b>\$14,090</b>	
<b>Total Cost of Post-Closure Care</b>			<b>\$154,990</b>

Notes:

<sup>1</sup> Task items based on the list from IAC 567-113.14(4)"c"(6). Calculations for each task or contained on the following pages.

<sup>2</sup> Based on 30-year postclosure period for the MPW Landfill, Greene County MSWLF unit ending in year: 2034

<sup>3</sup> For the site wide items covered under the Boone County MSWLF unit postclosure fund for which no change in scope resulted from the addition of the Greene County MSWLF unit, no additional funding will be required within the Greene County MSWLF unit postclosure financial assurance.

<sup>4</sup> One time costs to cover cap and grade restoration activities in the yard waste storage area as required in Doc #86328.

<sup>5</sup> Cost per Unit / Year escalated per Adjustment of Cost Estimates for Inflation provided by IDNR for 2023 (1.026 Inflation Factor) within summary list above.

Unit pricing within below support tables include costs at the time of incorporation. The costs are inflated within the summary list above with cumulative inflation factors applied since the year incorporated into the estimate (i.e. unit pricing added in 2019 includes inflation factors from 2020 over 2019, 2021 over 2020, 2022 over 2021, and 2023 over 2022 within the summary "Cost Per Unit".

<sup>6</sup> The Greene Co. and Boone Co. HMSP's were merged into one HMSP. Groundwater and surface monitoring systems maintenance, monitoring, and reporting for the HMSP are included in Boone County Post-Closure Cost Estimates and were removed from the Greene County Post-Closure Cost Estimate.

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**Closure Costs Tasks:**

**1. General Site Facilities, Access Roads, and Fencing Maintenance**

1a. Sign Replacement	\$0 per year
1b. Roadway Maintenance	\$0 per year
1c. Survey Monuments	\$0 per year
1d. Fence Repair and Replacement	\$0 per year
<b>Total Cost of Item 1</b>	<b>\$0 per year</b>

Assume:

- Item 1a through 1d.  
Refer to note 3 on summary.

**2. Cap and Vegetative Cover Maintenance**

2a. Final Cover Repair	\$870 per year
2b. Reseeding	\$660 per year
2c. Mowing	\$330 per year
2d. Weed and Tree Control	\$160 per year
2e. Yard Waste Storage Area Cover Restoration	\$3,410 once
<b>Total Cost of Item 2a-d</b>	<b>\$2,020 per year</b>
<b>2e. Cover Restoration</b>	<b>\$260 per year</b>

Assume:

- Item 2a
  - Unit cost per CY: \$2.45 per CY
  - Current final cover area (Greene County MSWLF unit): 7.3 acres
  - Estimated repair depths: 1 FT
  - Yearly estimated final cover repair at: 3% of the total area
  - For postclosure of the Greene County MSWLF unit: 353 CY
- Item 2b based on the 2009 bid cost for P32 - Cell AE and North Closure.
  - Unit cost based on bid prices from similar projects: \$3,000 per acre
  - Current final cover area (Greene County MSWLF unit): 7.3 acres
  - Yearly estimated final cover repair at: 3% of the total area
  - For postclosure of the Greene County MSWLF unit: 0.22 acres
- Item 2c.
  - Estimated cost per mowing event, assumes concurrent with MPW Landfill Boone area: \$329 number acres x unit cost
  - Frequency of mowing event: 1 time within 1 years
- Item 2d.
  - Estimated cost per weed and tree control event: \$780
  - Frequency of weed and tree control event: 1 time within 5 years
- Item 2e.
  - Yard waste storage area requiring restoration: 4,600 SQ FT
  - Cover thickness assumed affected: 4 FT
  - Unit cost for compacted soil, from MPW Boone closure cost estimates: \$5.00 per CY

**3. Drainage and Erosion Control Systems Maintenance**

3a. Ditch Cleaning	\$0 per year
3b. Culverts Cleaning and Repair	\$0 per year
<b>Total Cost of Item 3</b>	<b>\$0 per year</b>

Assume:

- Item 3a.  
Refer to note 3 on summary.

**4. Groundwater to Waste Separation Systems Maintenance**

NA	\$0 per year
<b>Total Cost of Item 4</b>	<b>\$0 per year</b>

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**5. Gas Control Systems Maintenance**

NA	\$0 per year
<b>Total Cost of Item 5</b>	<b>\$0 per year</b>

**6. Gas Control Systems Monitoring and Reporting**

6a. Methane Gas Monitoring	\$0 per year
6b. Gas Monitoring Report	\$0 per year
<b>Total Cost of Item 6</b>	<b>\$0 per year</b>

Assume:  
- Item 6a and 6b.  
Refer to note 3 on summary.

**7. Groundwater and Surface Water Monitoring Systems Maintenance**

N/A	\$0 per year
<b>Total Cost of Item 7</b>	<b>\$0 per year</b>

Assume:  
- See Note 6 on Summary Page. Included in Boone County Post-Closure Cost Estimate.

**8. Groundwater and Surface Water Quality Monitoring and Reporting**

N/A	\$0 per year
<b>Total Cost of Item 8</b>	<b>\$0 per year</b>

Assume:  
- See Note 6 on Summary Page. Included in Boone County Post-Closure Cost Estimate.

**9. Groundwater Monitoring Systems Performance Evaluations and Reports**

NA	\$0 per year
<b>Total Cost of Item 9</b>	<b>\$0 per year</b>

Assume:  
- See Note 6 on Summary Page. Included in Boone County Post-Closure Cost Estimate.

**10. Leachate Control Systems Maintenance**

10a. Leachate Line Cleaning	\$860 per year
<b>Total Cost of Item 10</b>	<b>\$860 per year</b>

Assume:  
- Item 10a.  
Unit cost per LF : \$4.28 per LF  
Toe drain line for the Greene County MSWLF unit: 600 LF (approximate)  
Frequency of leachate line jet cleaning: 1 time within 3 years

**Fiscal Year 22-23 Postclosure Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**11. Leachate Management, Transportation, and Disposal**

11a. Leachate Transportation and Disposal	\$6,220 per year
11b. Leachate Recirculation	\$0 per year
<b>Total Cost of Item 11</b>	<b>\$6,220 per year</b>

Assume:

- Item 11a.	
Leachate disposal cost - (MWA):	\$11.28 per 1,000 gallons
Leachate transportation cost (MWA):	\$51.00 per 1,000 gallons
Estimate generation from the unlined areas:	91,250 gallons per acre per year
Note: Assume leachate generation of 250 gallons/acre/day (page 4, 1998 Horizontal Expansion Plan, March 1999).	
Greene County MSWLF unit:	7.30 acres
Assumed leachate collection rate from the toe drain and wells:	15% of total leachate generation
<b>Total cost from unlined areas (Greene MSWLF unit):</b>	<b>\$6,223 per year</b>
- Item 11b.	
Leachate recirculation equipment / piping maintenance (estimate):	\$0 per year

**12. Leachate Control Systems Performance Evaluations and Reports**

12a. Leachate Control System Performance Evaluation Report	\$1,500 per year
<b>Total Cost of Item 12</b>	<b>\$1,500 per year</b>

Assume:

- Item 12a.	
Estimated cost for LCSPE report; coordinated with MPW Landfill-Boone County report	\$1,500 per year

**13. Engineering and Technical Services**

13a. Engineering and Technical Services	\$0 per year
13b. Semi-annual inspection	\$0 per year
<b>Total Cost of Item 13</b>	<b>\$0 per year</b>

Assume:

- Item 13a.  
Refer to note 3 on summary.
- Item 13b. Based on Table 3-1 of the Closure/Post Closure Plan  
Refer to note 3 on summary.

**14. Legal, Financial, and Administrative Services**

14a. Legal, Financial, and Administrative Services	\$0 per year
<b>Total Cost of Item 14</b>	<b>\$0 per year</b>

Assume:

- Item 14a.  
Refer to note 3 on summary.

**15. Financial Assurance, Accounting, Audits, and Reports**

15b. Annual financial assurance audit/assistance	\$1,000 per year
<b>Total Cost of Item 15</b>	<b>\$1,000 per year</b>

Assume:

- Item 15a.  
Estimated yearly costs: \$1,000 per year
- Item 15b.  
Refer to note 3 on summary.

**ATTACHMENT H**

**MPW GREENE COUNTY MSWLF  
2024 CORRECTIVE ACTION COST ESTIMATE WORKSHEETS**



**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

<b>Task<sup>1</sup></b>	<b>Units<sup>2</sup></b>	<b>Cost Per Unit</b>		<b>Cost of Task</b>
1. Remedy Design and Installation:	1	\$0	lump sum	\$0
2. Groundwater Monitoring Well Installation:	1	\$0	lump sum	\$0
3. Remedy Systems Maintenance:	10	\$1,030	year	\$10,300
4. Groundwater and Surface Water Monitoring Systems Maintenance:	1	\$13,030	lump sum	\$13,030
5. Groundwater and Surface Water Quality Monitoring and Reporting:	10	\$3,960	year	\$39,600
6. Legal, Financial, and Administrative Services:	10	\$0	year	\$0
7. Financial Assurance, Accounting, Audits, and Reports:	10	\$0	year	\$0
8. Remedy Completion Certification and Documentation:	1	\$5,130	lump sum	\$5,130
9. Remedy Decommissioning:	1	\$14,980	lump sum	\$14,980
<b>Total Cost of Corrective Action</b>				<b>\$83,040</b>

Notes:

<sup>1</sup> Selected remedy is implementation and maintenance of a toe drain collector south of the Greene Co. Landfill unit (groundwater extraction/enhanced attenuation).

<sup>2</sup> Calculations for each task are contained on the following pages.

<sup>3</sup> Duration of corrective action period is assumed to be the 10-year period identified in the CAMP, for the Greene Co. Landfill unit, which will end in year 2034.

Special Provisions- Closed Units, Item 5.q.1. of the current permit requires the remedy end date to be evaluated annually and adjusted if necessary.

<sup>4</sup> For the corrective action items covered under the Greene Co. MSWLF units postclosure fund for which no change in scope resulted from the addition of the corrective action, no additional funding is included within the corrective action financial assurance.

<sup>5</sup> Cost estimate performed February 2023 and inflated for FY 22-23.

**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**Corrective Action Costs:**

**1. Remedial System Design and Installation**

1a. Toe Drain Design	\$0 lump sum
1b. Toe Drain Construction	\$0 lump sum
<b>Total Cost of Item 1</b>	<b>\$0 lump sum</b>

Assume:

Construction of the toe drain was complete by 2023.

Design and construction of the toe drain was paid for out of the MWA capital development budget and therefore is not included this cost estimate.

**2. Groundwater Monitoring Well Installation**

2a. Groundwater Monitoring Well Installations(Completed)	\$0 lump sum
<b>Total Cost of Item 2</b>	<b>\$0 lump sum</b>

Assume:

- Corrective Action Monitoring Plan (CAMP) submitted on February 03, 2023. Approved by Department in amendment dated Febr. 22, 2023.

- Background wells include MW-5AR, MW-6A, and MW-28.

- Corrective Action wells include MW-2AR.

- Arsenic delineation wells include MW-20, MW-21, MW-26, and MW-27.

- Surface Water sampling locations include MPWRAC001, MPWRAC002, MPWRAC003, AND MPWRAC004.

- There are no additional wells per the approved CAMP required to be installed.

- Item 2a:

No. of additional wells required for corrective action monitoring network:	0	wells
Total well depth for installation:	0	FT
Installation cost:		\$50 per FT
<b>Total well installation cost:</b>		<b>\$0</b>
Well protection installation cost:		\$1,000 per well
<b>Total well protection installation cost:</b>		<b>\$0</b>
No. of additional wells requiring low flow sampling pump:	0	wells
Low flow sampling pump and associated apparatus :		\$1,500 per pump
Labor cost (estimate):		\$70 per pump
<b>Total low flow sampling pump cost:</b>		<b>\$0</b>

**3. Remedy Systems Maintenance**

3a. Well Pump Repair and Replacement	\$300 per year
3b. Toe Drain Line Cleaning	\$700 per year
3c. Equipment Maintenance - Leachate Collection and Treatment System	\$0 per year
<b>Total Cost of Item 3</b>	<b>\$1,000 per year</b>

Assume:

- Items 3a through 3c.

Leachate Collection and Treatment System is maintained under the post closure care fund.

Refer to Note 4 on summary page.

**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**4. Groundwater and Surface Water Monitoring Systems Maintenance**

4a. Groundwater Monitoring Well Replacement/Repair (Corrective Action Monitoring Program)	\$11,200 lump sum
4b. Groundwater Sampling Pump and Equipment Maintenance (Corrective Action Monitoring Program)	\$1,500 lump sum
<b>Total Cost of Item 4</b>	<b>\$12,700 lump sum</b>

Assume:

- Item 4a. For the corrective action monitoring program in addition to the MPW unit HMSP monitoring network.		
No. of wells for replacement in CA monitoring period:	1 well	
Cost for abandonment and reinstallation per well, including protection installation	\$ 11,200.00	
<u>Total well abandonment and replacement cost:</u>		<u>\$11,200</u>
- Item 4b. Assume low flow sampling method will be utilized during the corrective action period for the corrective action monitoring program in addition to the MPW MSWLF unit HMSP monitoring network.		
Assume in 10 year corrective action period, one pump will need to be replaced.		
No. of pumps to replace:	1 pump	
<u>Cost of pump replacement and labor:</u>		<u>\$1,500 per pump</u>

Low flow sampling equipment maintenance costs, refer to note 3 on summary page.

Assume:

- Item 4a and 4b.
- Refer to note 3 on summary.

**5. Groundwater and Surface Water Quality Monitoring & Reporting**

5a. Groundwater Sampling	\$ 900 per year
5b. Analysis	\$ 560 per year
5c. Water Quality Report	\$ 2,400 per year
<b>Total Cost of Item 5</b>	<b>\$3,860 per year</b>

Assume:

- Item 5a. For the corrective action monitoring program in addition to the MPW MSWLF unit HMSP monitoring network.		
Estimated mobilization cost per sampling event: (included in post-closure estimate)		\$0 per mobilization
Estimated cost per sampling per point:		\$150 per sampling point
No. of sampling points not in current HMSP:	3 sampling points	
<u>Frequency of non-HMSP sampling:</u>	<u>2 times within</u>	<u>1 years</u>
- Item 5b. For the corrective action monitoring program in addition to the MPW MSWLF unit HMSP monitoring network.		
Arsenic in non-HMSP points	7 sampling points (includes surface water points)	
Metals analytical cost:		\$12 per metal constituent
TSS in non-HMSP points:	1 sampling points (includes surface water points)	
TSS analytical cost:		\$90 per sampling point
GPP in HMSP and non-HMSP points:	3 sampling points (excludes surface water points)	
GPP analytical cost (includes \$5.00 prep fee and \$1.50 waste mgmt. fee):		\$26 per sampling point
<u>Rate of duplicate samples:</u>	<u>10%</u>	
- Item 5c.		
AWQR for corrective action in addition to the MPW MSWLF unit:		\$1,200 per report
Frequency of reporting (AWQR):	1	time within 1 years
CAMP system progress reporting:		\$1,200 per report
	1	time within 1 years

**6. Legal, Financial, and Administrative Services**

6a. Legal, Financial, and Administrative Services	\$0 per year
<b>Total Cost of Item 6</b>	<b>\$0 per year</b>

Assume:

Refer to Note 4 on summary page.

**7. Financial Assurance, Accounting, Audits, and Reports**

7a. Annual financial assurance estimate and report	\$0 per year
7b. Annual financial assurance audit	\$0 per year
<b>Total Cost of Item 7</b>	<b>\$0 per year</b>

Assume:

Refer to note 4 on summary page.

**8. Remedy Completion Certification and Documentation**

8a. Remedy Completion Certification Documentation	\$5,000 lump sum
<b>Total Cost of Item 8</b>	<b>\$5,000 lump sum</b>

Assume:

- Item 8a.
- Estimated remedy completion certification documentation cost: \$5,000.00 lump sum

**Fiscal Year 22-23 Corrective Action Cost Estimate  
MPW Landfill Greene County MSWLF Unit**

**FY 22-23 Financial Assurance Update**

**9. Remedy Decommissioning**

9a. Decommissioning of toe drain collector	\$	4,600.00	lump sum
9b. Groundwater Monitoring System Decommissioning	\$	1,500.00	lump sum
9c. Decommissioning/Abandonment Documentation	\$	8,500.00	lump sum
<b>Total Cost of Item 9</b>			<b>\$14,600 lump sum</b>

Assume:

- Item 9a. Includes pumps in sump risers (2)			
Removal of pumps and telemetry equipment cost (estimated):		\$300	EA
Number of leachate extraction pumping systems at the end of remedy			2 extraction pumps
<b>Total leachate extraction pump removal cost:</b>		<b>\$600</b>	
Abandonment/capping of leachate collection piping cost (estimated)			\$4,000 lump sum
- Item 9b.			
Removal of low flow sampling pumps cost (estimated 2 per hour):		\$50	EA
Number of low flow sampling pumps:	3 pumps		
<b>Total low flow sampling pump removal cost:</b>		<b>\$150</b>	
Total monitoring well depths for abandonment:	78 FT		
Includes abandonment of MW-20, MW-21, and MW-27. Abandonment/decommissioning of remaining wells within system are covered under the Boone Co post-closure estimate.			
Abandonment cost:		\$50	per FT
<b>Total well abandonment cost:</b>		<b>\$3,900</b>	
No. of wells to be abandoned:	3 wells		
Well protection removal cost (assumes disposal in active landfill at no cost):		\$500	per well
<b>Total well protection removal cost:</b>		<b>\$1,500</b>	
- Item 9c.			
Decommissioning/Abandonment Documentation of Toe Drain:		\$5,000	lump sum
Decommissioning/Abandonment Documentation of GW Monitoring Wells:		\$3,500	lump sum

**SECTION III**

**MWA FINANCIAL SUPPORT LETTER**  
**MWA FINANCIAL REPORT – AUDIT**

**ATTACHMENT I**

**LETTER FROM MWA IN SUPPORT OF USE OF FINANCIAL TEST**



**Metro Waste Authority**  
*We Know Where It Should Go*

March 11, 2024

Iowa Department of Natural Resources  
Planning, Permitting & Engineering Services  
Wallace State Office Building  
502 E. 9<sup>th</sup> Street  
Des Moines, IA 50319

Dear Sir or Madam:

I am the Chief Financial Officer for the Metro Waste Authority, herein referred to as the "Owner". This letter is in support of the Owner's use of the Financial Test to demonstrate financial assurance for closure and/or postclosure care costs, as specified in IAC 567 Chapter 113.14(3) and 113.14(4).

The Owner is the owner and operator of the following municipal solid waste sanitary landfill for which financial assurance for closure and/or postclosure care is demonstrated through the financial test, as specified in IAC 567 Chapter 113.14(6)"f".

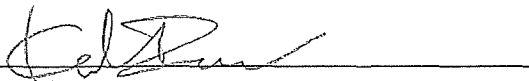
Facility Name: Metro Park East Landfill  
Address: 12181 NE University Ave., Mitchellville, IA 50169  
Permit No: 77-SDP-01-72P Phase Two

The current closure and/or postclosure care cost estimate, in accordance with IAC 567 Chapter 113.14(3) and 113.14(4) are shown below for each facility covered by the Financial Test.

Closure/Postclosure cost to be assured: \$5,234,245

The Owner meets or exceeds the financial test criteria as shown below in Alternative II and agrees to comply with the requirements, as specified in sub-rule 113.14(6)"f".

As the Chief Financial Officer for the Owner, I hereby certify that the information provided in this letter is true to the best of my knowledge and that this letter is being submitted in accordance with IAC 567 Chapter 113.14(6)"f" for the Local Government Financial Test.

Signature: 

Name: Kirk Irwin

Date: March 11, 2024

---

Central Office | 300 East Locust Street, Suite 100 | Des Moines, Iowa 50309-1864 | 515.244.0021  
Metro Park East Landfill | 12181 NE University Avenue | Mitchellville, Iowa 50169-9571 | 515.967.2076  
Metro Park West Landfill | 2499 337th Street | Perry, Iowa 50220-8500 | 515.333.5618  
Metro Hazardous Waste Drop-Off | 1105 Prairie Drive SW | Bondurant, Iowa 50035-9209 | 515.967.5512



**Metro Waste Authority**  
*We Know Where It Should Go*

March 11, 2024

Iowa Department of Natural Resources  
Planning, Permitting & Engineering Services  
Wallace State Office Building  
502 E. 9<sup>th</sup> Street  
Des Moines, IA 50319

Dear Sir or Madam:

I am the Chief Financial Officer for the Metro Waste Authority, herein referred to as the "Owner". This letter is in support of the Owner's use of the Financial Test to demonstrate financial assurance for closure and/or postclosure care costs, as specified in IAC 567 Chapter 113.14(3) and 113.14(4).

The Owner is the owner and operator of the following municipal solid waste sanitary landfill for which financial assurance for closure and/or postclosure care is demonstrated through the financial test, as specified in IAC 567 Chapter 113.14(6)"f".

Facility Name: Metro Park West Landfill  
Address: 2499 337<sup>th</sup> Street, Perry, IA 50220  
Permit No: 08-SDP-3-84P (North Dallas Landfill)

The current closure and/or postclosure care cost estimate, in accordance with IAC 567 Chapter 113.14(3) and 113.14(4) are shown below for each facility covered by the Financial Test.

Closure/Postclosure cost to be assured: \$777,401

The Owner meets or exceeds the financial test criteria as shown below in Alternative II and agrees to comply with the requirements, as specified in sub-rule 113.14(6)"f".

As the Chief Financial Officer for the Owner, I hereby certify that the information provided in this letter is true to the best of my knowledge and that this letter is being submitted in accordance with IAC 567 Chapter 113.14(6)"f" for the Local Government Financial Test.

Signature: 

Name: Kirk Irwin

Date: March 11, 2024

---

Central Office | 300 East Locust Street, Suite 100 | Des Moines, Iowa 50309-1864 | 515.244.0021  
Metro Park East Landfill | 12181 NE University Avenue | Mitchellville, Iowa 50169-9571 | 515.967.2076  
Metro Park West Landfill | 2499 337th Street | Perry, Iowa 50220-8500 | 515.333.5618  
Metro Hazardous Waste Drop-Off | 1105 Prairie Drive SW | Bondurant, Iowa 50035-9209 | 515.967.5512



The figures for the following items are derived from the Owner's independently audited, year-end financial statements/audit report for the latest completed fiscal year, ended [Fiscal year end date].

## Alternative II

1. Sum of the current closure and/or postclosure cost estimates being assured by the Financial Test	\$6,011,646	\$6,612,625
	<b>From most recent annual auditor's report</b>	<b>From 2<sup>nd</sup> most recent annual auditor's report</b>
2. Total Revenues for past two years	\$56,433,211	\$52,438,779
3. Total Expenditures for past two years	\$45,280,599	\$41,452,537
4. Cash plus marketable securities (see definition below)	\$34,267,444	\$33,376,527
5. Annual debt service	\$3,451,650	\$3,301,900
<b>Must be able to answer "Yes" or "True" to the following</b>	<b>Yes/ True</b>	<b>No/ False</b>
6. Is line 4 divided by line 3 greater than 5 percent?	Yes	
7. Is line 5 divided by line 3 less than 20 percent?	Yes	
8. There are no outstanding general obligation bonds that are currently in default.	True	
9. There are no outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard & Poor's.	True	
10. Have financial statements (audit) been prepared in conformity with Generally Accepted Accounting Principles or with Other Comprehensive Basis of Accounting?	Yes	
11. Is line 3 less than line 2 in each of the past two years?	Yes	
12. If answered "no" to line 11, line 3 does not exceed line 2 by more than 5 percent in each of the past two years.	N/A	
13. Is line 1 less than 43 percent of line 2?	Yes	
14. Have not received an adverse opinion or disclaimer of opinion from the independent certified public accountant or office of the auditor of the state of Iowa.	True	
15. Have closure and postclosure costs being assured been referenced in the owner's most recent audit report or instead placed in the owner's files if timing did not permit reference in the most recent audit?	Yes	

Definitions:

"Deficit" means total annual revenues minus total annual expenditures.

"Total revenues" means revenues from all taxes and fees but does not include the proceeds from borrowing or asset sales, excluding revenue from funds managed by local government on behalf of a specific third party.

"Total expenditures" means all expenditures excluding capital outlays and debt repayment.

"Cash plus marketable securities" means all the cash plus marketable securities held by the local government on the last day of a fiscal year, excluding cash and marketable securities designated to satisfy past obligations such as pensions.

"Debt service" means the amount of principal and interest due on a loan in a given time period, typically the current year.

**ATTACHMENT J**

**MWA FINANCIAL REPORT  
INCLUDING INDEPENDENT AUDITOR REPORT**

**Metro Waste Authority  
Des Moines, Iowa**

**FINANCIAL REPORT**

**June 30, 2023 and 2022**

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**Metro Waste Authority  
OFFICIALS**

<u>Name</u>	<u>Title</u>	<u>Representing</u>
Dean O'Connor	Chair	Altoona
Rob Sarchet	Vice Chair	Polk City
Mark Holm	Member	Ankeny
Bob Pepper	Member	Bondurant
John Edwards	Member	Clive
Joe Gatto	Member	Des Moines
Steve Allen	Member	Elkhart
David Gisch	Member	Grimes
Tom Cope	Member	Johnston
Bill Roberts	Member	Mitchellville
Brian Baker	Member	Norwalk
Mark Konrad	Member	Pleasant Hill
Tom Hockensmith	Member	Polk County
Gerald Lane	Member	Runnells
Matt Blake	Member	Urbandale
Doug Loots	Member	West Des Moines
Susan Skeries	Member	Windsor Heights
Planning Area Members		
Bob Kramme	Mayor	Alleman
Drew Merrifield	Mayor	Carlisle
Kandi Petry	Mayor	Hartford
Gary Bartels	Mayor	Mingo
Chad Alleger	Mayor	Prairie City
Don Towers	Mayor	Sheldahl
Michael McCoy	Executive Director	

## INDEPENDENT AUDITOR'S REPORT

Board of Directors  
Metro Waste Authority  
Des Moines, Iowa

### Report on the Audit of the Financial Statements

#### *Opinion*

We have audited the accompanying financial statements of Metro Waste Authority (the Authority) (a joint public body), as of and for the years ended June 30, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Metro Waste Authority, as of June 30, 2023 and 2022, and the changes in financial position, and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

#### *Basis for Opinion*

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Metro Waste Authority and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### *Responsibilities of Management for the Financial Statements*

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Metro Waste Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditor's Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Metro Waste Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Metro Waste Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of the Authority's proportionate share of the net pension liability, and the schedule of Authority pension contributions on pages 7 through 10 and 32 through 35 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 26, 2023, on our consideration of Metro Waste Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Metro Waste Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Metro Waste Authority's internal control over financial reporting and compliance.

*Denman CPA LLP*  
Denman CPA LLP

West Des Moines, Iowa  
December 26, 2023



**Metro Waste Authority**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**

As management of Metro Waste Authority (MWA), we offer readers of MWA's financial statements this narrative overview and analysis of the financial performance for the fiscal years ended June 30, 2023 and 2022. We encourage readers to consider this information with MWA's financial statements that follow this section.

**FINANCIAL HIGHLIGHTS**

MWA continues to provide for the environmentally safe disposal of solid waste, hazardous waste and recycling for the Central Iowa area and has exceeded its budgeted income each of the last seven years. Here are some of the financial highlights from fiscal year 2023, with comparisons to the prior year:

- In FY 2023, total revenues were \$58.5 million, reflecting an increase of 11%. Total expenses were \$45.9 million, which was an increase of 9%. Surplus results for the year were \$12.6 million, up from \$10.5 million the prior year. Overall tonnage increased less than 1% to just over 940,000 tons, continuing the agency's record of increasing volumes each year.
- Total assets as of the end of year were \$179 million, an increase of about \$12 million, reflecting about 7% growth. This reflects increased investments in capital assets of about \$18 million during the year, before consideration of about \$10 million of current year depreciation.

**OVERVIEW OF THE FINANCIAL STATEMENTS**

This annual report includes this management discussion and analysis, the independent auditor's report, and the basic financial statements of MWA. The financial statements also include detailed notes to support the financial statements. Additional supplemental information is also in schedule form and begins after the notes to the financial statements.

**REQUIRED FINANCIAL STATEMENTS**

The financial statements report information about MWA using accounting methods similar to those used by private sector companies. These statements offer short-term and long-term information about its activities. The Statement of Net Position includes all MWA's assets and liabilities and provides information about types and amounts of investments in resources (assets) and the obligations to MWA's creditors (liabilities). It also provides the basis for evaluating MWA's liquidity, financial flexibility, and overall financial health of the agency.

All of the current year and prior year's revenues and expenses are accounted for in the Statements of Revenues, Expenses and Changes in Net Position. These statements measure the success of MWA's operations over the past two years and can be used to determine whether the agency has covered all its costs through its tipping fees and other charges.

The final required financial statements are the Statements of Cash Flows. These statements report cash receipts, cash payments, and net changes in cash resulting from operating, investing, and capital and related financing activities. They also provide answers to such questions as where cash came from, what was cash used for, and what was the change in the cash balance during the reporting periods.

**ANALYSIS OF MWA FINANCIAL POSITION**

The Statements of Net Position and the Statements of Revenues, Expenses, and Changes in Net Position report information about the net position of MWA and the changes in them. MWA's net position (the difference between assets and liabilities) is one way to measure the agency's financial health or financial position. Over time, increases or decreases in MWA's net position is one indicator of whether its financial health is improving or deteriorating. However, one will need to consider other non-financial factors such as changes in economic conditions, population growth, and new or changed government regulations.

## **NET POSITION**

The net position of the agency's balance sheet reflects the difference between the agency's assets and the amounts owed to third parties. The net position is further defined to reflect amounts invested in capital assets, amounts restricted for a particular purpose, and amounts which are unrestricted and available for the future needs of the agency. Summary balance sheet information is set forth below.

### **Condensed Statements of Net Position**

	<b><u>FY 2023</u></b>	<b><u>FY 2022</u></b>	<b><u>\$ Change</u></b>	<b><u>% Change</u></b>	<b><u>FY 2021</u></b>
<b>Assets and Deferred Outflows of Resources</b>					
Current and other assets	\$ 42,544,837	\$ 40,206,887	\$ 2,337,950	6%	\$ 34,809,953
Restricted assets	43,360,403	41,643,180	1,717,223	4%	41,976,684
Lease receivables	1,061,580	1,018,326	43,254	4%	695,203
Capital assets	91,883,625	84,054,098	7,829,527	9%	81,329,810
Total assets	<u>178,850,445</u>	<u>166,922,491</u>	<u>11,927,954</u>	<u>7%</u>	<u>158,811,650</u>
Deferred outflows of resources	<u>1,249,426</u>	<u>920,128</u>	<u>329,298</u>	<u>36%</u>	<u>1,101,973</u>
<b>Liabilities and Deferred Inflows of Resources</b>					
Current liabilities	12,282,421	10,779,315	1,503,106	14%	11,821,001
Long-term debt	21,741,909	24,817,897	(3,075,988)	-12%	27,397,950
Closure and post closure costs	22,524,146	20,827,745	1,696,401	8%	18,541,402
Net pension liability	3,111,888	101,550	3,010,338	2964%	4,877,222
Total liabilities	<u>59,660,364</u>	<u>56,526,507</u>	<u>3,133,857</u>	<u>6%</u>	<u>62,637,575</u>
Deferred inflows of resources	<u>1,274,858</u>	<u>4,749,583</u>	<u>(3,474,725)</u>	<u>-73%</u>	<u>882,545</u>
<b>Net position</b>					
Net invested in capital assets	64,347,513	53,790,398	10,557,115	20%	58,055,196
Restricted for transfer station closure	320,000	320,000	-	0%	320,000
Unrestricted	<u>54,497,136</u>	<u>52,456,131</u>	<u>2,041,005</u>	<u>4%</u>	<u>37,718,307</u>
Total net position	<u>\$ 119,164,649</u>	<u>\$ 106,566,529</u>	<u>\$ 12,598,120</u>	<u>12%</u>	<u>\$ 96,093,503</u>

The agency's net position increased approximately \$12.6 million in FY 2023 and \$10.5 million in FY 2022, reflecting the operating surplus in each year. A significant portion of the surplus from FY 2023 was reinvested in capital assets, with the end of year balance reflecting an increase of \$10.6 million. Investments in capital assets were \$17.7 million during the year before consideration of current year depreciation expense, which totaled \$9.8 million.

Restricted assets include cash and investments that have been designated by MWA's Board of Directors for landfill closure and post closure costs and for the purchase of capital assets. Federal and State regulations require MWA to complete a closure/post closure plan and to provide necessary funding, including the proper monitoring and care of the landfill after closure. For more detailed information, see note 6 of the financial statements.

These statements highlight the significant infrastructure required for MWA to deliver essential services to its stakeholders. The relationship between the agency's net position and its lower debt levels illustrates the conservative approach management has taken relative to the financial structure of the agency, utilizing surplus funds rather than debt to finance operations.

## **REVENUES, EXPENSES, AND CHANGES IN NET POSITION**

The current year surplus of revenues over expenses, which increased the net position of the balance sheet, is summarized below, along with historical information and comparisons.

### **Condensed Statements of Revenues, Expenses, and Changes in Net Position**

	<b>FY 2023</b>	<b>FY 2022</b>	<b>\$ Change</b>	<b>% Change</b>	<b>FY 2021</b>
<b>Revenues</b>					
Operating revenues	\$ 56,433,211	\$ 52,438,779	\$ 3,994,432	8%	\$ 44,140,809
Investment income (loss)	1,478,270	(982,889)	2,461,159	-250%	(43,317)
Nonoperating revenues	557,104	1,096,499	(539,395)	-49%	378,486
Total revenues	58,468,585	52,552,389	5,916,196	11%	44,475,978
<b>Expenses</b>					
Operating expenses	35,489,871	32,434,849	3,055,022	9%	28,281,286
Depreciation	9,790,728	9,017,688	773,040	9%	8,017,894
Nonoperating expenses	589,866	626,826	(36,960)	-6%	737,327
Total expenses	45,870,465	42,079,363	3,791,102	9%	37,036,507
Change in net position	12,598,120	10,473,026			7,439,471
Beginning net position	106,566,529	96,093,503			88,654,032
Ending net position	<u>\$119,164,649</u>	<u>\$106,566,529</u>			<u>\$ 96,093,503</u>

Total current year revenues were \$58.5 million, reflecting an increase of \$5.9 million (11%) over the prior year. Of the year-over-year increase, \$4.0 million is attributable to an increase in regular operating revenues and \$2.5 million reflects increased investment income compared to last year, offset by a decline in nonoperating revenues of \$.5 million compared to last year.

Total expenses were \$45.9 million, an increase of \$3.8 million (9%) over last year. The increase in expenses primarily reflects expected increases in wages and other operating expenses across the agency. Fiscal year 2023 was the first full year of operations of the Metro Recycling Facility; this impacts the year-over-year comparisons. Given that the facility operates at a deficit, this has a more pronounced effect on the comparison of year-over-year expenses when comparing the years.

The change in net position as of the end of the year reflects the surplus of revenues over expenses of \$12.6 million in the current year, up from the prior year's surplus of \$10.5 million. Management believes that is necessary for the agency to operate at a surplus in order to generate funds that can be invested and generate earnings that will allow MWA to meet its current and future obligations in terms of capital needs for future asset replacement, ongoing landfill cell development, and future obligations related to landfill closure and post closure costs. By doing so, it can better ensure its ability to continue to deliver on its promise made to its founding municipalities and stakeholders and exceed expectations built on past successes and results. Given the long-term nature of its activities and the need to fund significant future expenses, it is critical that current results generate a surplus which can help fund future obligations which arise out of current activities.

## **CAPITAL ASSETS**

As stated previously, the activity of MWA requires copious levels of investment in infrastructure and it is critical that the agency generates sufficient resources to meet the long-term capital needs. Investments in capital assets are summarized below, broken out by asset types. Balances as of the end of the current and prior fiscal years and comparisons are set forth below.

	<b>Capital Assets</b>				
<b>Asset Type:</b>	<b>FY 2023</b>	<b>FY 2022</b>	<b>\$ Change</b>	<b>% Change</b>	<b>FY 2021</b>
Land & land improvements	\$ 22,834,132	\$ 22,835,276	\$ (1,144)	0%	\$ 22,802,767
Buildings & building improvements	59,185,752	58,581,714	604,038	1%	43,155,337
Landfill cell development	47,172,225	34,802,022	12,370,203	36%	34,802,022
Wetlands treatment facility	4,408,832	4,408,832	-	0%	4,408,832
Equipment	60,354,224	56,962,157	3,392,067	6%	43,871,389
Work in process	3,954,400	2,746,641	1,207,759	44%	22,248,177
Subtotal	197,909,565	180,336,642	17,572,923	10%	171,288,524
Less: accumulated depreciation	106,025,940	96,282,544	9,743,396	10%	89,958,714
Net capital assets	<u>\$ 91,883,625</u>	<u>\$ 84,054,098</u>	<u>\$ 7,829,527</u>	<u>9%</u>	<u>\$ 81,329,810</u>

The increase in capital assets in FY 2023 reflects a significant investment in a new cell development at the Metro Park East landfill, in addition to regular capital spending across the agency. The agency's operations are capital-intensive, and managing present and future capital needs is a primary focus of the agency's management. For this reason, it is critical the agency continues to generate surplus results in a manner that allows it to meet those future needs.

## **LONG-TERM DEBT**

On June 4, 2020, MWA entered into a loan agreement with Polk County for \$22.35 million with an interest rate of 2.4747%. Semiannual interest and principal are due through June 1, 2040. The proceeds from this loan were used to build the Materials Recovery Facility.

On June 4, 2020, MWA entered into a loan agreement with Polk County for \$8.165 million with an interest rate of 1.2645%. Semiannual interest and principal are due through June 1, 2024. The proceeds from this loan were used to refinance the building of the Metro Northwest Transfer Station located in Grimes, Iowa.

For more information on MWA's long-term debt, see note 5 of the financial statements.

## **CONTACTING THE AUTHORITY'S FINANCIAL MANAGEMENT**

This financial report is designed to present users with a general overview of MWA's finances and to demonstrate the Authority's accountability for the funds generated. If you have questions about the report or need additional financial information, please contact the Finance Department, Metro Waste Authority, 300 East Locust Street, Suite 100, Des Moines, IA 50309-1864.

**Metro Waste Authority  
STATEMENTS OF NET POSITION**

	<b>June 30</b>	
	<b>2023</b>	<b>2022</b>
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 7,724,145	\$ 15,547,224
Investments	26,543,299	17,829,303
Disposal fees receivable, less allowance for uncollectible accounts 2023 and 2022 \$100,000	7,777,410	6,215,886
Prepaid expenses, accrued interest and other assets	184,748	311,296
Inventories	<u>315,235</u>	<u>303,178</u>
Total current assets	<u>42,544,837</u>	<u>40,206,887</u>
<b>ASSETS WHOSE USE IS LIMITED</b>		
Investments	<u>43,360,403</u>	<u>41,643,180</u>
<b>LEASE RECEIVABLES</b>	<u>1,061,580</u>	<u>1,018,326</u>
<b>CAPITAL ASSETS</b>	197,909,565	180,336,642
Less accumulated depreciation and amortization	<u>106,025,940</u>	<u>96,282,544</u>
Total capital assets	<u>91,883,625</u>	<u>84,054,098</u>
<b>Total assets</b>	<u>178,850,445</u>	<u>166,922,491</u>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Pension	<u>1,249,426</u>	<u>920,128</u>
<b>CURRENT LIABILITIES</b>		
Current portion of notes payable	2,850,000	2,630,000
Construction contracts payable	2,944,203	2,815,803
Trade accounts payable	3,707,209	2,997,304
Landfill tax payable	787,791	480,074
Accrued payroll and employee benefits	1,644,215	1,531,414
Other accrued expenses	<u>349,003</u>	<u>324,720</u>
Total current liabilities	<u>12,282,421</u>	<u>10,779,315</u>
<b>LONG-TERM LIABILITIES</b>		
Notes payable, net current portion	21,741,909	24,817,897
Accrued landfill closure and postclosure care costs	22,524,146	20,827,745
Net pension liability	<u>3,111,888</u>	<u>101,550</u>
Total long-term liabilities	<u>47,377,943</u>	<u>45,747,192</u>
<b>Total liabilities</b>	<u>59,660,364</u>	<u>56,526,507</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Leases	873,508	946,892
Pension	<u>401,350</u>	<u>3,802,691</u>
Total deferred inflows of resources	<u>1,274,858</u>	<u>4,749,583</u>
<b>NET POSITION</b>		
Net investment in capital assets	64,347,513	53,790,398
Restricted for transfer station closure	320,000	320,000
Unrestricted	<u>54,497,136</u>	<u>52,456,131</u>
<b>Total net position</b>	<u>\$119,164,649</u>	<u>\$106,566,529</u>

See Notes to Financial Statements.

**Metro Waste Authority**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**

	<b>Year ended June 30</b>	
	<b>2023</b>	<b>2022</b>
<b>REVENUES</b>		
Landfill, transfer, compost, RCC, curbside recycling, and rental	\$ 56,433,211	\$ 52,438,779
<b>OPERATING EXPENSES</b>		
Operating expenses (excluding depreciation and amortization)	33,746,195	30,102,499
Provision for landfill closure and postclosure care costs	<u>1,743,676</u>	<u>2,332,350</u>
Operating income before depreciation and amortization	<u>20,943,340</u>	<u>20,003,930</u>
<b>DEPRECIATION AND AMORTIZATION</b>		
Depreciation	7,171,341	6,593,377
Amortization	<u>2,619,387</u>	<u>2,424,311</u>
	<u>9,790,728</u>	<u>9,017,688</u>
Operating income	<u>11,152,612</u>	<u>10,986,242</u>
<b>NONOPERATING REVENUES (EXPENSES)</b>		
Farm income, net related expenses	149,152	132,332
Grant revenue	76,664	141,947
Investment income (loss)	1,478,270	(982,889)
Gain on sale of capital assets	3,681	430,541
Interest expense	(589,866)	(626,826)
Other	<u>327,607</u>	<u>391,679</u>
Total nonoperating revenues (expenses)	<u>1,445,508</u>	<u>(513,216)</u>
Change in net position	12,598,120	10,473,026
<b>NET POSITION, beginning of year</b>	<u>106,566,529</u>	<u>96,093,503</u>
<b>NET POSITION, end of year</b>	<u>\$119,164,649</u>	<u>\$106,566,529</u>

See Notes to Financial Statements.

**Metro Waste Authority  
STATEMENTS OF CASH FLOWS**

	<b>Year ended June 30</b>	
	<b>2023</b>	<b>2022</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash received from customers	\$54,458,227	\$49,658,928
Cash paid to suppliers for goods and services	(24,039,166)	(22,623,090)
Cash paid to employees for services	(8,479,763)	(7,448,176)
Cash paid for host fees	(364,019)	(326,985)
Community clean up grants paid	(12,110)	(17,008)
Net cash flows from operating activities	<u>21,563,169</u>	<u>19,243,669</u>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Principal payments on notes payable	(2,630,000)	(2,420,000)
Interest paid on notes payable	(821,650)	(881,900)
Purchase of capital assets	(17,749,799)	(13,566,121)
Cash received on sale of capital assets	4,825	708,833
Payments for landfill cell closure	(47,275)	(46,007)
Grants received	76,664	141,947
Net cash flow from capital and related financing activities	<u>(21,167,235)</u>	<u>(16,063,248)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Proceeds from the sale of investments	-	6,932,270
Purchase of investments	(9,048,350)	-
Interest received	55,756	13,793
Net cash received from leasing and other activities	773,581	760,517
Net cash flow from investing activities	<u>(8,219,013)</u>	<u>7,706,580</u>
<b>NET CHANGE IN CASH AND CASH EQUIVALENTS</b>	(7,823,079)	10,887,001
<b>CASH AND CASH EQUIVALENTS</b>		
Beginning	<u>15,547,224</u>	<u>4,660,223</u>
Ending	<u>\$ 7,724,145</u>	<u>\$15,547,224</u>

See Notes to Financial Statements.

**Metro Waste Authority**  
**STATEMENTS OF CASH FLOWS (continued)**

	<b>Year ended June 30</b>	
	<b>2023</b>	<b>2022</b>
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Operating income	\$11,152,612	\$10,986,242
Adjustments to reconcile operating income to net cash flows from operating activities		
Depreciation and amortization	9,790,728	9,017,688
Provision for closure and postclosure care costs	1,743,676	2,332,350
Lease revenue	(413,460)	(307,940)
Changes in assets and liabilities		
Disposal fees receivable	(1,561,524)	(2,471,911)
Prepaid expenses and other assets, net of investing activities	166,193	479,958
Inventories	(12,057)	(113,428)
Deferred outflows of resources	(329,298)	181,845
Payables, net of amounts for capital assets	1,274,422	534,022
Accrued payroll and employee benefits	142,880	(234,834)
Net pension liability	3,010,338	(4,775,672)
Deferred inflows of resources	<u>(3,401,341)</u>	<u>3,615,349</u>
 Net cash flows from operating activities	 <u>\$21,563,169</u>	 <u>\$19,243,669</u>

See Notes to Financial Statements.



**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 1 SIGNIFICANT ACCOUNTING POLICIES**

Metro Waste Authority (the Authority) was formed in 1969 pursuant to the provisions of Chapter 28E of the Code of Iowa by a majority of the local governmental jurisdictions comprising the Des Moines, Iowa metropolitan area. The purpose of the Authority is to provide for the economic disposal, or collection and disposal, of all solid waste produced or generated within the metropolitan area. Currently, this purpose is being met by operating sanitary landfills, transfer station, regional collection center and compost facility, as well as managing volume reduction and recycling programs. The Authority also provides disposal services to private contractors.

The Authority is comprised of one representative from each of the sixteen member cities and one representative from Polk County. The member cities are: Altoona, Ankeny, Bondurant, Clive, Des Moines, Elkhart, Grimes, Johnston, Mitchellville, Norwalk, Pleasant Hill, Polk City, Runnells, Urbandale, West Des Moines, and Windsor Heights. Each member is entitled to one vote for each 50,000 population or fraction thereof, residing in the governmental jurisdiction, as determined by the most recent general Federal Census.

**Reporting Entity**

For financial reporting purposes, the Authority has included all funds, organizations, account groups, agencies, boards, commissions and authorities. The Authority has also considered all potential component units for which it is financially accountable, and other organizations for which the nature and significance of their relationship with the Authority are such that exclusion would cause the Authority's financial statements to be misleading or incomplete. The Governmental Accounting Standards Board has set forth criteria to be considered in determining financial accountability. These criteria include appointing a voting majority of an organization's governing body, and (1) the ability of the Authority to impose its will on that organization or (2) the potential for the organization to provide specific benefits to, or impose specific financial burdens on the Authority. The Authority has no component units which meet the Governmental Accounting Standards Board criteria.

**Measurement Focus and Basis of Accounting**

The accounting policies of the Authority conform to accounting principles generally accepted in the United States of America as applicable to governments. The financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. The Authority has no governmental or fiduciary funds.

The Authority's accounts are organized as an enterprise fund. The enterprise fund is used to account for operations (a) that are financed and operated in a manner similar to private business enterprises, where the intent of the governing body is that the costs (expense, including depreciation) of providing goods and services to the general public on a continuing basis be financed or recovered primarily through user charges or (b) where the governing body has decided that the periodic determination of revenues earned, expenses incurred and/or changes in net position is appropriate for capital maintenance, public policy, management control, accountability or other purposes.

The Authority distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Authority's principal ongoing operations. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

When an expense is incurred which can be paid using either restricted or unrestricted resources, the Authority's policy is generally to first apply the expense toward restricted resources and then to less-restrictive classifications.

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (continued)**

**Cash and Cash Equivalents**

The Authority considers all cash and short-term investments that are highly liquid to be cash equivalents.

**Disposal Fees Receivable**

Disposal fees are recorded at the time of service. The Authority provides for an allowance for doubtful accounts that is estimated based on the Authority's historical losses, the existing economic conditions and the financial stability of the customers. The amount of the allowance for doubtful accounts as of June 30, 2023 and 2022 was \$100,000. Receivables are written off when they are determined to be uncollectible.

**Inventories**

Inventories, which consist of yard bags and stickers, are stated at cost, based on the first-in, first-out method.

**Capital Assets**

Capital assets are accounted for at historical cost or estimated historical cost where historical cost is not available. Depreciation and amortization of all exhaustible capital assets is charged as an expense against operations. Depreciation is provided over the estimated useful life of each class of depreciable asset and is computed on the straight-line method using these asset lives:

Landfill improvements	5 to 10 years
Wetlands treatment facility	10 to 30 years
Buildings	10 to 40 years
Building improvements	10 years
Automobiles and trucks	3 to 10 years
Equipment	5 to 10 years

To match the expense related to landfill cell development with the revenue generated by the landfill operations, the Authority amortizes landfill cell development costs on a units-of-consumption basis over its operating life, on a cubic yard of disposal space consumed. Landfill cell development costs are fully amortized at the end of a landfill cell's operating life. The per-unit amortization rate is calculated by dividing the sum of landfill cell development net book value plus estimated future development costs for the landfill cell, by the landfill cell's estimated remaining disposal capacity.

The cost of repairs and maintenance is charged to expense, while the cost of renewals or substantial betterments is capitalized. The cost and accumulated depreciation and amortization of assets disposed of are deleted, with any gain or loss recorded in current operations.

**Leases**

The Authority is the lessor for certain noncancellable office space leases. The Authority recognizes a lease receivable and a deferred inflow of resources in the accompanying statements of net position.

At the commencement of a lease, the Authority initially measures the lease receivable at the present value of payments expected to be received during the lease term, discounted at the Authority's incremental borrowing rate. Subsequently, the lease receivable is reduced by the principal portion of the lease payments received. The deferred inflows of resources is initially measured as the initial amount of the lease receivable, adjusted for lease payments received at or before the lease commencement date. Subsequently, the deferred inflow of resources is recognized as revenue over the life of the lease term.

**Metro Waste Authority  
NOTES TO FINANCIAL STATEMENTS**

**NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (continued)**

**Landfill Tax Payable**

The Authority is required by the Iowa Department of Natural Resources (DNR) to collect and remit to the DNR a tonnage fee surcharge on non-exempt disposed waste. The Authority's accounting policy is to exclude the tonnage fee surcharge collected and remitted from revenues and expenses.

**Compensated Absences**

Authority employees accumulate a limited amount of earned but unused vacation and sick leave hours for subsequent use or for payment upon termination, death or retirement. The cost of vacation and sick leave accumulations are recorded as liabilities and expenses. The compensated absences liability, included in accrued payroll and employee benefits, has been computed based on rates of pay in effect at June 30, 2023 and 2022, respectively.

**Landfill Closure and Postclosure Care Costs**

Costs expected to be incurred in ultimately closing the present landfill site are being systematically provided for through charges to expense over the estimated useful life of the landfill on the basis of capacity used.

**Investments and Investment Income**

The Authority's investments and the methods used in determining the reported amounts are as follows:

<u>Type</u>	<u>Method</u>
Interest-earning investment contracts	
Nonnegotiable certificates of deposit	Cost
Debt securities	
U.S. Government Agency securities	
Maturity of one year or less when purchased	Amortized cost
Maturity of more than one year when purchased	Fair value based on quoted market prices

The nonnegotiable certificates of deposit and U.S. Government Agency securities are nonparticipating contracts not significantly affected by impairment of the issuer's credit standing or other factors. The debt securities with a remaining maturity of one year or less when purchased are also not significantly affected by the issuer's credit standing or by other factors.

Investment income is reported as nonoperating revenue. Investment income includes interest income and the net increase (decrease) in the fair value of investments which includes realized and unrealized gains and losses on investments.

**Net Pension Liability**

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Iowa Public Employees' Retirement System (IPERS) and additions to/deductions from IPERS' fiduciary net position have been determined on the same basis as they are reported by IPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (continued)**

**Deferred Outflows of Resources**

Deferred outflows of resources represent a consumption of net position that applies to a future period(s) and will not be recognized as an outflow of resources (expense) until then. Deferred outflows of resources consist of unrecognized items not yet charged to pension expense and contributions from the employer after the measurement date but before the end of the employer's reporting period.

**Deferred Inflows of Resources**

Deferred inflows of resources represent an acquisition of net position that applies to a future period(s) and will not be recognized as an inflow of resources (revenue) until that time. Deferred inflows of resources in the statements of net position consists of the unamortized items related to the Authority's pension plan and deferred amounts related to the Authority's lease receivables.

**Net Position**

Net position is presented in the following three components:

**Net investment in Capital Assets**

Net investment in capital assets consists of capital assets and unspent bond proceeds, net of accumulated depreciation and amortization and reduced by liabilities that are attributable to the acquisition, construction, or improvement of those assets.

**Restricted**

This component of net position consists of constraints placed on net position use through external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation. The Authority currently has reported restricted net position related to transfer station closure investments.

**Unrestricted**

Unrestricted net position has no externally imposed restrictions on use.

**Accounting Estimates and Assumptions**

The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 2 CASH AND INVESTMENTS**

The Authority's deposits in banks at June 30, 2023 were entirely covered by federal depository insurance or the State Sinking Fund in accordance with Chapter 12C of the Code of Iowa. This chapter provides for additional assessments against the depositories to insure there will be no loss of public funds.

The Authority is authorized by statute to invest public funds in obligations of the United States government, its agencies and instrumentalities; certificates of deposit or other evidences of deposit at federally insured depository institutions approved by the Board of Directors; prime eligible bankers acceptances; certain high rated commercial paper; perfected repurchase agreements; certain registered open-end management investment companies; certain joint investment trusts; and warrants or improvement certificates of a drainage district. The Authority's investment policy limits the amount that may be invested in one issuer (excluding U.S. Government obligations) to 25% of the portfolio.

<u>Security Description</u>	<b>Investment Maturities as of June 30, 2023 (in Years)</b>			
	<u>Fair Value</u>	<u>Less Than 1</u>	<u>1 – 5</u>	<u>More Than 5</u>
Cash equivalents	\$48,601,481	\$48,601,481	\$ –	\$ –
Federal Farm Credit Bank	7,949,651	–	7,949,651	–
FMCC	2,405,110	–	2,405,110	–
FHLB	9,008,213	–	9,008,213	–
FNMA	1,684,673	–	1,663,977	20,696
Certificates of deposit	<u>254,574</u>	<u>–</u>	<u>254,574</u>	<u>–</u>
	<u>\$69,903,702</u>	<u>\$48,601,481</u>	<u>\$21,281,525</u>	<u>\$ 20,696</u>

<u>Security Description</u>	<b>Investment Maturities as of June 30, 2022 (in Years)</b>			
	<u>Fair Value</u>	<u>Less Than 1</u>	<u>1 – 5</u>	<u>More Than 5</u>
Cash equivalents	\$39,163,611	\$39,163,611	\$ –	\$ –
Federal Farm Credit Bank	6,975,308	–	6,975,308	–
FMCC	3,389,515	–	3,389,515	–
FHLB	8,206,614	–	8,206,614	–
FNMA	1,485,092	–	1,459,395	25,697
Certificates of deposit	<u>252,343</u>	<u>–</u>	<u>252,343</u>	<u>–</u>
	<u>\$59,472,483</u>	<u>\$39,163,611</u>	<u>\$20,283,175</u>	<u>\$ 25,697</u>

The Authority uses the fair value hierarchy established by generally accepted accounting principles based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. Level 3 inputs are significant unobservable inputs.

The fair value measurements for the Authority's investments were determined using quoted prices in active markets. (Level 1 inputs).

*Credit Risk.* The Authority's investment policy does not limit its investment portfolio based upon credit quality of the issuer. At June 30, 2023, all of the Authority's investments subject to credit quality ratings were rated AAA by Moody's Investor Service.

*Interest Rate Risk.* The Authority's investment policy limits the investing of operating funds (defined as funds reasonably expected to be expended within fifteen months) to instruments that mature within 397 days. Funds not identified as operating funds may be invested in instruments with maturities longer than 397 days, provided that the maturities are consistent with the needs and use of the Authority.

**Metro Waste Authority  
NOTES TO FINANCIAL STATEMENTS**

**NOTE 3 ASSETS WHOSE USE IS LIMITED**

Assets whose use is limited at June 30, 2023 and 2022 were limited for the following purposes:

	<b>June 30</b>	
	<b>2023</b>	<b>2022</b>
Legally restricted assets whose use is limited		
Closure and postclosure care costs	\$22,524,146	\$20,827,745
Transfer station closure	320,000	320,000
Under escrow agreement	424,424	480,055
Bond sinking fund	315,529	294,706
Total	<u>23,584,099</u>	<u>21,922,506</u>
Board designated assets whose use is limited		
Capital projects	19,176,304	19,120,674
Environmental contingencies	600,000	600,000
	<u>19,776,304</u>	<u>19,720,674</u>
Total assets whose use is limited	<u>\$43,360,403</u>	<u>\$41,643,180</u>

Assets designated by the Board of Directors for capital projects and environmental contingencies, represent assets set aside for these purposes. The Board retains control of these assets and may, at its discretion, subsequently use the assets for other purposes.

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 4 CAPITAL ASSETS**

During the year ended June 30, 2023, capital asset additions and disposals by type were as follows:

	<u>Balance July 1, 2022</u>	<u>Additions</u>	<u>Disposals</u>	<u>Transfers</u>	<u>Balance June 30, 2023</u>
Metro Park East					
Land	\$ 8,419,151	\$ -	\$ -	\$ -	\$ 8,419,151
Building	15,944,708	56,679	-	-	16,001,387
Landfill improvements	2,478,114	-	(1,144)	-	2,476,970
Landfill cell development	31,429,489	-	-	12,370,203	43,799,692
Wetlands treatment facility	4,408,832	-	-	-	4,408,832
	<u>62,680,294</u>	<u>56,679</u>	<u>(1,144)</u>	<u>12,370,203</u>	<u>75,106,032</u>
Metro Park West					
Land	4,682,614	-	-	-	4,682,614
Land improvements	454,292	-	-	-	454,292
Building	264,114	-	-	-	264,114
Landfill cell development	3,372,533	-	-	-	3,372,533
	<u>8,773,553</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>8,773,553</u>
Metro Northwest Transfer Station					
Land	1,899,162	-	-	-	1,899,162
Building	9,443,464	-	-	-	9,443,464
Land improvements	3,928,184	-	-	-	3,928,184
	<u>15,270,810</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>15,270,810</u>
Transfer Station					
Land	89,221	-	-	-	89,221
Land improvements	217,642	-	-	-	217,642
Building	5,036,064	-	-	-	5,036,064
	<u>5,342,927</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,342,927</u>
Metro Compost Center					
Leasehold improvements	1,507,780	-	-	-	1,507,780
Regional Collection Center					
Land	168,896	-	-	-	168,896
Building	3,181,873	20,867	-	-	3,202,740
	<u>3,350,769</u>	<u>20,867</u>	<u>-</u>	<u>-</u>	<u>3,371,636</u>
300 East Locust					
Land	498,000	-	-	-	498,000
Building	7,777,334	-	-	232,345	8,009,679
	<u>8,275,334</u>	<u>-</u>	<u>-</u>	<u>232,345</u>	<u>8,507,679</u>
Materials Recovery Facility					
Building	15,426,377	294,147	-	-	15,720,524
Automobiles, trucks and other equipment					
Office equipment - Central Office and Landfills	1,765,676	-	-	-	1,765,676
Disposal	23,434,879	1,732,509	(47,331)	587,770	25,707,827
Transfer Station	6,746,921	-	-	-	6,746,921
Regional Collection Center	828,735	-	-	-	828,735
Recycling	5,161,619	-	-	328,217	5,489,836
Compost Facility	3,588,815	-	-	-	3,588,815
Metro Northwest Transfer Station	1,803,093	309,843	-	-	2,112,936
Materials Recovery Facility	13,632,419	481,059	-	-	14,113,478
	<u>56,962,157</u>	<u>2,523,411</u>	<u>(47,331)</u>	<u>915,987</u>	<u>60,354,224</u>
Construction in progress	<u>2,746,641</u>	<u>14,726,294</u>	<u>-</u>	<u>(13,518,535)</u>	<u>3,954,400</u>
Totals	180,336,642	17,621,398	(48,475)	-	197,909,565
Less accumulated depreciation and amortization	<u>(96,282,544)</u>	<u>(9,790,728)</u>	<u>47,332</u>	<u>-</u>	<u>(106,025,940)</u>
Net capital assets	<u>\$ 84,054,098</u>	<u>\$ 7,830,670</u>	<u>\$ (1,143)</u>	<u>\$ -</u>	<u>\$ 91,883,625</u>

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 4 CAPITAL ASSETS (continued)**

During the year ended June 30, 2022, capital asset additions and disposals by type were as follows:

	<u>Balance July 1, 2021</u>	<u>Additions</u>	<u>Disposals</u>	<u>Transfers</u>	<u>Balance June 30, 2022</u>
Metro Park East					
Land	\$ 8,419,151	\$ -	\$ -	\$ -	\$ 8,419,151
Building	15,944,708	-	-	-	15,944,708
Landfill improvements	2,476,970	1,144	-	-	2,478,114
Landfill cell development	31,429,489	-	-	-	31,429,489
Wetlands treatment facility	4,408,832	-	-	-	4,408,832
	<u>62,679,150</u>	<u>1,144</u>	<u>-</u>	<u>-</u>	<u>62,680,294</u>
Metro Park West					
Land	4,651,249	31,365	-	-	4,682,614
Land improvements	454,292	-	-	-	454,292
Building	264,114	-	-	-	264,114
Landfill cell development	3,372,533	-	-	-	3,372,533
	<u>8,742,188</u>	<u>31,365</u>	<u>-</u>	<u>-</u>	<u>8,773,553</u>
Metro Northwest Transfer Station					
Land	1,899,162	-	-	-	1,899,162
Building	9,443,464	-	-	-	9,443,464
Land improvements	3,928,184	-	-	-	3,928,184
	<u>15,270,810</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>15,270,810</u>
Transfer Station					
Land	89,221	-	-	-	89,221
Land improvements	217,642	-	-	-	217,642
Building	5,036,064	-	-	-	5,036,064
	<u>5,342,927</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,342,927</u>
Metro Compost Center					
Leasehold improvements	1,507,780	-	-	-	1,507,780
Regional Collection Center					
Land	168,896	-	-	-	168,896
Building	3,181,873	-	-	-	3,181,873
	<u>3,350,769</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,350,769</u>
300 East Locust					
Land	498,000	-	-	-	498,000
Building	7,777,334	-	-	-	7,777,334
	<u>8,275,334</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>8,275,334</u>
Materials Recovery Facility					
Building	-	-	-	15,426,377	15,426,377
Automobiles, trucks and other equipment					
Office equipment - Central Office and Landfills	1,714,548	51,128	-	-	1,765,676
Disposal	24,064,892	2,336,685	(2,972,148)	5,450	23,434,879
Transfer Station	6,746,921	-	-	-	6,746,921
Regional Collection Center	791,501	37,234	-	-	828,735
Recycling	5,161,619	-	-	-	5,161,619
Compost Facility	3,588,815	-	-	-	3,588,815
Metro Northwest Transfer Station	1,803,093	-	-	-	1,803,093
Materials Recovery Facility	-	-	-	13,632,419	13,632,419
	<u>43,871,389</u>	<u>2,425,047</u>	<u>(2,972,148)</u>	<u>13,637,869</u>	<u>56,962,157</u>
Construction in progress	<u>22,248,177</u>	<u>9,562,710</u>	<u>-</u>	<u>(29,064,246)</u>	<u>2,746,641</u>
Totals	171,288,524	12,020,266	(2,972,148)	-	180,336,642
Less accumulated depreciation and amortization	<u>(89,958,714)</u>	<u>(9,017,688)</u>	<u>2,693,858</u>	<u>-</u>	<u>(96,282,544)</u>
Net capital assets	<u>\$ 81,329,810</u>	<u>\$3,002,578</u>	<u>\$ (278,290)</u>	<u>\$ -</u>	<u>\$ 84,054,098</u>



**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 4 CAPITAL ASSETS (continued)**

Land with a carrying value of approximately \$9,535,000 was not used in the landfill operations as of June 30, 2023 and 2022. Of this amount, approximately \$8,302,000 was leased or farmed as farmland as of June 30, 2023 and 2022.

The Authority has entered into various construction contracts. The unpaid contract balances as of June 30, 2023 totaled approximately \$327,000 which will be paid from cash and investment reserves and other sources.

**NOTE 5 NOTES PAYABLE**

Notes payable at June 30, 2023 and 2022 are summarized as follows:

	<b>2023</b>	<b>2022</b>
General Obligation Capital Loan Notes Series 2020A	\$21,150,000	\$21,715,000
General Obligation Capital Loan Notes Series 2020B	<u>2,105,000</u>	<u>4,170,000</u>
	23,255,000	25,885,000
Less current portion	(2,850,000)	(2,630,000)
Plus unamortized bond premium	<u>1,336,909</u>	<u>1,562,897</u>
Long-term debt	<u>\$21,741,909</u>	<u>\$24,817,897</u>

**General Obligation Capital Loan Notes, Series 2020**

In June 2020, Polk County, Iowa issued General Obligation Capital Loan Notes, Series 2020A and 2020B of which \$22,350,000 and \$8,165,000, respectively, were allocable to the Authority. Proceeds from the notes will be used by the Authority to repay previous loan obligations and finance the Materials Recovery Facility project. The Authority has pledged future net revenues to repay the Notes. The Notes require several covenants, including maintaining net revenues of at least 125% of the amount of principal and interest due annually and maintaining 75 days of unrestricted cash on hand at all times. The loans bear interest at rates ranging from 2% to 5%.

Principal and interest maturities of the notes payable at June 30, 2023 are summarized as follows:

<b>Year ending June 30</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>
2024	\$ 2,850,000	\$ 752,100	\$ 3,602,100
2025	960,000	672,750	1,632,750
2026	1,010,000	624,750	1,634,750
2027	1,060,000	574,250	1,634,250
2028	1,115,000	521,250	1,636,250
2029-2033	6,080,000	2,085,000	8,165,000
2034-2038	7,055,000	1,116,000	8,171,000
2039-2040	<u>3,125,000</u>	<u>141,300</u>	<u>3,266,300</u>
Totals	<u>\$23,255,000</u>	<u>\$ 6,487,400</u>	<u>\$29,742,400</u>

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 5 NOTES PAYABLE (continued)**

A summary of changes in notes payable for the year ended June 30, 2023 follows:

	<u>Beginning balance</u>	<u>Additions</u>	<u>Principal payments</u>	<u>Ending balance</u>	<u>Amounts due within one year</u>
GO Capital Loan Notes, Series 2020A	\$21,715,000	\$ —	\$ 565,000	\$21,150,000	\$ 745,000
GO Capital Loan Notes, Series 2020B	<u>4,170,000</u>	<u>—</u>	<u>2,065,000</u>	<u>2,105,000</u>	<u>2,105,000</u>
Totals	<u>\$25,885,000</u>	<u>\$ —</u>	<u>\$2,630,000</u>	<u>\$23,255,000</u>	<u>\$2,850,000</u>

A summary of changes in notes payable for the year ended June 30, 2022 follows:

	<u>Beginning balance</u>	<u>Additions</u>	<u>Principal payments</u>	<u>Ending balance</u>	<u>Amounts due within one year</u>
GO Capital Loan Notes, Series 2020A	\$22,110,000	\$ —	\$ 395,000	\$21,715,000	\$ 565,000
GO Capital Loan Notes, Series 2020B	<u>6,195,000</u>	<u>—</u>	<u>2,025,000</u>	<u>4,170,000</u>	<u>2,065,000</u>
Totals	<u>\$28,305,000</u>	<u>\$ —</u>	<u>\$2,420,000</u>	<u>\$25,885,000</u>	<u>\$2,630,000</u>

**NOTE 6 CLOSURE AND POSTCLOSURE CARE COSTS**

To comply with federal and state regulations, the Authority is required to complete a monitoring system plan and a closure/postclosure plan and to provide funding necessary to effect closure and postclosure care, including the proper monitoring and care of the landfill after closure. Environmental Protection Agency (EPA) requirements have established closure and thirty-year postclosure care requirements for all municipal solid waste landfills that receive waste after October 9, 1993. State governments are primarily responsible for implementation and enforcement of those requirements and have been given flexibility to tailor requirements to accommodate local conditions that exist. The effect of the EPA requirements is to commit landfill owners to perform certain closing functions and postclosure monitoring functions as a condition for the right to operate the landfill in the current period. The EPA requirements provide that when a landfill stops accepting waste, it must be covered with a minimum of twenty-four inches of earth to keep liquid away from the buried waste. Once the landfill is closed, the owner is responsible for maintaining the final cover, monitoring ground water and methane gas, and collecting and treating leachate (the liquid that drains out of waste) for thirty years.

The Authority is required to estimate total landfill closure and postclosure care costs and recognize a portion of these costs each year based on the percentage of estimated total landfill capacity used that period. Estimated total costs would consist of four components: (1) the cost of equipment and facilities used in postclosure monitoring and care, (2) the cost of final cover (material and labor), (3) the cost of monitoring the landfill during the postclosure period and (4) the cost of any environmental cleanup required after closure. Estimated total cost is based on the cost to purchase those services and equipment currently and is required to be updated annually for changes due to inflation or deflation, technology, or applicable laws or regulations.

The Authority's estimated closure and postclosure care liabilities are as follows as of June 30, 2023 and 2022:

	<u>June 30</u>	
	<u>2023</u>	<u>2022</u>
Postclosure care	\$ 9,485,865	\$ 9,539,096
Landfill closure	<u>13,038,281</u>	<u>11,288,649</u>
Totals	<u>\$22,524,146</u>	<u>\$20,827,745</u>

**Metro Waste Authority  
NOTES TO FINANCIAL STATEMENTS**

**NOTE 6 CLOSURE AND POSTCLOSURE CARE COSTS (continued)**

The provision for landfill closure and postclosure care costs recognized for the years ended June 30, 2023 and 2022 is as follows:

	<b>Year ended June 30</b>	
	<b>2023</b>	<b>2022</b>
Provision for postclosure care	\$ (5,956)	\$ 774,001
Provision for landfill closure	<u>1,749,632</u>	<u>1,558,349</u>
Totals	<u>\$1,743,676</u>	<u>\$2,332,350</u>

The total closure and postclosure care costs for Metro Waste Authority have been estimated at approximately \$27,440,000 as of June 30, 2023, and the portion of the liability that has been recognized is \$22,524,146. This liability represents the cumulative amount reported to date based on the use of approximately 77 percent of the capacity of the developed landfill less payments for cell closure, with a remaining life of approximately 3.77 years. A provision for the above liability has been made on the Authority's statements of net position as of June 30, 2023 and 2022. The Authority has accumulated resources to fund these costs. They are included in assets whose use is limited on the statements of net position and total \$22,524,146 and \$20,827,745 as of June 30, 2023 and 2022, respectively.

**NOTE 7 TRANSFER STATION CLOSURE CARE**

To comply with state regulations, the Authority is required to complete a closure plan detailing how the transfer station will comply with proper disposal of all solid waste and litter at the site, cleaning the transfer station building, including the rinsing of all surfaces which have come in contact with solid waste or washwater, cleaning of all solid waste transport vehicles which will remain on site, including the rinsing of all surfaces which have come in contact with solid waste, and the removal and proper management of all washwater in the washwater management system.

To comply with state regulations, the Authority is required to maintain a closure account as financial assurance for the closure care costs. The effect of the state requirement is to commit landfill owners to perform certain closing functions as a condition for the right to operate the transfer station.

The total closure care costs for the Authority as of June 30, 2023 and 2022 have been estimated at \$320,000. The balance has been restricted and is fully funded at June 30, 2023 and 2022.

**NOTE 8 SOLID WASTE TONNAGE FEES RETAINED**

The Authority has established an account for restricting and using solid waste tonnage fees retained by the Authority in accordance with Chapter 455B.310 of the Code of Iowa. As of June 30, 2023 and 2022, there were no unspent amounts retained by the Authority.

**NOTE 9 PENSION PLAN**

**Plan Description**

IPERS is a cost-sharing multiple employer defined benefit pension plan administered by Iowa Public Employees' Retirement System. Membership is mandatory for employees of the Authority, except for those covered by another retirement system. IPERS issues a stand-alone financial report which is available to the public by mail at P.O. Box 9117, Des Moines, Iowa 50306-9117 or at [www.ipers.org](http://www.ipers.org).

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 9 PENSION PLAN (continued)**

**Plan Description (continued)**

IPERS benefits are established under Iowa Code Chapter 97B and the administrative rules thereunder. Chapter 97B and the administrative rules are the official plan documents. The following brief description is provided for general informational purposes only. Refer to the plan documents for more information.

**Pension Benefits**

A regular member may retire at normal retirement age and receive monthly benefits without an early-retirement reduction. Normal retirement age is age 65, any time after reaching age 62 with 20 or more years of covered employment, or when the member's years of service plus the member's age at the last birthday equals or exceeds 88, whichever comes first. These qualifications must be met on the member's first month of entitlement to benefits. Members cannot begin receiving retirement benefits before age 55. The formula used to calculate a regular member's monthly IPERS benefit includes:

- A multiplier (based on years of service).
- The member's highest five-year average salary. (For members with service before June 30, 2012, the highest three-year average salary as of that date will be used if it is greater than the highest five-year average salary.)

If a member retires before normal retirement age, the member's monthly retirement benefit will be permanently reduced by an early-retirement reduction. The early-retirement reduction is calculated differently for service earned before and after July 1, 2012. For service earned before July 1, 2012, the reduction is 0.25% for each month that the member receives benefits before the member's earliest normal retirement age. For service earned starting July 1, 2012, the reduction is 0.50% for each month that the member receives benefits before age 65.

Generally, once a member selects a benefit option, a monthly benefit is calculated and remains the same for the rest of the member's lifetime. However, to combat the effects of inflation, retirees who began receiving benefits prior to July 1990 receive a guaranteed dividend with their regular November benefit payments.

**Disability and Death Benefits**

A vested member who is awarded federal Social Security disability or Railroad Retirement disability benefits is eligible to claim IPERS benefits regardless of age. Disability benefits are not reduced for early retirement. If a member dies before retirement, the member's beneficiary will receive a lifetime annuity or a lump-sum payment equal to the present actuarial value of the member's accrued benefit or calculated with a set formula, whichever is greater. When a member dies after retirement, death benefits depend on the benefit option the member selected at retirement.

**Contributions**

Contribution rates are established by IPERS following the annual actuarial valuation, which applies IPERS' Contribution Rate Funding Policy and Actuarial Amortization Method. State statute limits the amount rates can increase or decrease each year to 1 percentage point. IPERS Contribution Rate Funding Policy requires that the actuarial contribution rate be determined using the "entry age normal" actuarial cost method and the actuarial assumptions and methods approved by the IPERS Investment Board. The actuarial contribution rate covers normal cost plus the unfunded actuarial liability payment based on a 30-year amortization period. The payment to amortize the unfunded actuarial liability is determined as a level percentage of payroll, based on the Actuarial Amortization Method adopted by the Investment Board.

In fiscal years 2023 and 2022, pursuant to the required rate, regular members contributed 6.29% of covered payroll and the Authority contributed 9.44% for a total rate of 15.73%.

The Authority's contributions to IPERS for the years ended June 30, 2023 and 2022 were \$755,237 and \$637,790, respectively.

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 9 PENSION PLAN (continued)**

**Net Pension Liability, Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

At June 30, 2023 and 2022, the Authority reported a liability of \$3,111,888 and \$101,550, respectively, for its proportionate share of the net pension liability. The Authority's net pension liability was measured as of June 30, 2022 and 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of those dates. The Authority's proportion of the net pension liability was based on the Authority's share of contributions to the pension plan relative to the contributions of all IPERS participating employers. The following table summarizes the change in the Authority's proportionate share:

	<b>Measurement Date</b>		
	<b>June 30</b>		
	<b>2022</b>	<b>2021</b>	<b>Change</b>
Authority's proportionate share	0.082365%	(0.029415)%	0.111781%
	<b>2021</b>	<b>2020</b>	<b>Change</b>
Authority's proportionate share	(0.029415)%	0.069429%	(0.098844)%

For the years ended June 30, 2023 and 2022, the Authority recognized pension expense (gain) of \$34,936 and \$(340,688), respectively. At June 30, 2023 and 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Pension Related Deferred</b>			
	<b>Outflows of Resources</b>		<b>Inflows of Resources</b>	
	<b>2023</b>	<b>2022</b>	<b>2023</b>	<b>2022</b>
Difference between expected and actual experience	\$ 137,950	\$ 77,266	\$ 42,626	\$ 77,579
Change in assumptions	2,640	66,422	74	-
Net difference between projected and actual earnings on pension plan investments	-	-	333,118	3,679,323
Change in proportion and difference between Authority contributions and proportionate share of contributions	353,599	138,650	25,532	45,789
Authority contributions subsequent to the measurement date	<u>755,237</u>	<u>637,790</u>	<u>-</u>	<u>-</u>
Totals	<u>\$1,249,426</u>	<u>\$ 920,128</u>	<u>\$ 401,350</u>	<u>\$3,802,691</u>

\$755,237 and \$637,790 reported as deferred outflows of resources related to pensions resulting from the Authority contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the years ended June 30, 2024 and 2023, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

**Year ending June 30,**

2024	\$ (225,495)
2025	(145,087)
2026	(315,918)
2027	750,111
2028	<u>29,226</u>
Totals	<u>\$ 92,837</u>

There were no non-employer contributing entities at IPERS.

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 9 PENSION PLAN (continued)**

**Actuarial Assumptions**

The total pension liability in the June 30, 2022 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Rate of inflation (effective June 30, 2017)	2.60% per annum.
Rates of salary increase (effective June 30, 2017)	3.25 to 16.25% average, including inflation. Rates vary by membership group.
Long-term investment rate of return (effective June 30, 2017)	7.00% compounded annually, net of investment expense, including inflation.
Wage growth (effective June 30, 2017)	3.25% per annum, based on 2.60% inflation and 0.65% real wage inflation.

The actuarial assumptions used in the June 30, 2022 valuation were based on the results of a quadrennial experience study covering the period July 1, 2017 through June 30, 2021.

Mortality rates used in the 2022 valuation were based on the PubG-2010 mortality tables with future mortality improvements modeled using Scale MP-2021.

The long-term expected rate of return on IPERS' investments was determined using a building-block method in which best-estimate ranges of expected future real rates (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

<u>Asset Class</u>	<u>Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Core Plus Fixed Income	22.0%	3.57%
Domestic Equity	17.5	4.79
International Equity	6.0	4.16
Private Equity	20.0	1.66
Private Real Assets	4.0	3.77
Public Credit	1.0	0.77
Private Credit	13.0	7.57
Global Smart Beta equity	8.5	3.55
Cash	<u>8.0</u>	3.63
Total	<u>100.0%</u>	

**Discount Rate**

The discount rate used to measure the total pension liability was 7.0%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the contractually required rate and that contributions from the Authority will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments to current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**Metro Waste Authority  
NOTES TO FINANCIAL STATEMENTS**

**NOTE 9 PENSION PLAN (continued)**

**Sensitivity of the Authority's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate**

The following presents the Authority's proportionate share of the net pension liability calculated using the discount rate of 7.0%, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower (6.0%) or 1% higher (8.0%) than the current rate.

	<b>1% Decrease (6.0%)</b>	<b>Discount Rate (7.0%)</b>	<b>1% Increase (8.0%)</b>
Authority's proportionate share of the net pension liability as of June 30, 2023	<u>\$5,797,821</u>	<u>\$3,111,888</u>	<u>\$ 744,842</u>
Authority's proportionate share of the net pension liability as of June 30, 2022	<u>\$3,594,188</u>	<u>\$ 101,550</u>	<u>\$(2,825,503)</u>

**Pension Plan Fiduciary Net Position**

Detailed information about the pension plan's fiduciary net position is available in the separately issued IPERS financial report which is available on IPERS' website at [www.ipers.org](http://www.ipers.org).

**Payables to the Pension Plan**

At June 30, 2023 and 2022, the Authority reported payables to the defined benefit pension plan of approximately \$84,000 and \$48,000, respectively, for legally required employer contributions and approximately \$56,000 and \$32,000, respectively, for legally required employee contributions which had been withheld from employee wages but not yet remitted to IPERS.

**NOTE 10 RISK MANAGEMENT**

The Authority is exposed to various risks of loss related to torts; theft, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. These risks are covered by the purchase of commercial insurance. Settled claims from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years. The Authority assumes liability for any deductibles and claims in excess of coverage limitations.

The Authority is a member of the Iowa Communities Assurance Pool, as allowed by Chapter 670.7 of the Code of Iowa. The Iowa Communities Assurance Pool (Pool) is a local government risk-sharing pool whose 800 members include various governmental entities throughout the State of Iowa. The Pool was formed in August 1986 for the purpose of managing and funding third-party liability claims against its members. The Pool provides coverage and protection in the following categories: general liability, automobile liability, employment practices liability, public officials' liability, cyber liability, and law enforcement liability. There have been no reductions in insurance coverage from prior years.

Each member's annual casualty contributions to the Pool fund current operations and provide capital. Annual casualty operating contributions are those amounts necessary to fund, on a cash basis, the Pool's general and administrative expenses, claims, claims expenses and reinsurance expenses estimated for the fiscal year, plus all or any portion of any deficiency in capital. Capital contributions are made during the first six years of membership and are maintained at a level determined by the Board not to exceed 300% of basis rates.

**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 10 RISK MANAGEMENT (continued)**

The Pool also provides property coverage. Members who elect such coverage make annual property operating contributions which are necessary to fund, on a cash basis, the Pool's general and administrative expenses, reinsurance premiums, losses and loss expenses for property risks estimated for the fiscal year, plus all or any portion of any deficiency in capital. Any year end operating surplus is transferred to capital. Deficiencies in operations are offset by transfers from capital and, if insufficient, by the subsequent year's member contributions.

The Authority's contributions to the risk pool are recorded as expenditures from its operating funds at the time of payment to the risk pool. The Authority's contributions to the Pool for the years ended June 30, 2023 and 2022 were \$363,751 and \$366,654, respectively.

The Pool uses reinsurance and excess risk-sharing agreements to reduce its exposure to large losses. The Pool retains general, automobile, employment practices, law enforcement, cyber, and public officials' liability risks up to \$500,000 per claim. Claims exceeding \$500,000 are reinsured through reinsurance and excess risk-sharing agreements up to the amount of risk-sharing protection provided by the Authority's risk-sharing certificate. Property and automobile physical damage risks are retained by the Pool up to \$250,000 each occurrence, each location. Property risks exceeding \$250,000 are reinsured through reinsurance and excess risk-sharing agreements up to the amount of risk-sharing protection provided by the Authority's risk-sharing certificate.

The Pool's intergovernmental contract with its members provides that in the event a casualty claim, property loss or series of claims or losses exceeds the amount of risk-sharing protection provided by the Authority's risk-sharing certificate, or in the event a casualty claim, property loss or series of claims or losses exhausts the Pool's funds and any excess risk-sharing recoveries, then payment of such claims or losses shall be the obligation of the respective individual member against whom the claim was made or the loss was incurred.

The Authority does not report a liability for losses in excess of reinsurance or excess risk-sharing recoveries unless it is deemed probable such losses have occurred and the amount of such loss can be reasonably estimated. Accordingly, at June 30, 2023 and 2022, no liability has been recorded in the Authority's financial statements. As of June 30, 2023 and 2022, settled claims have not exceeded the risk pool or reinsurance coverage since the Pool's inception.

Members agree to continue membership in the Pool for a period of not less than one full year. After such period, a member who has given 60 days' prior written notice may withdraw from the Pool. Upon withdrawal, payments for all casualty claims and claims expenses become the sole responsibility of the withdrawing member, regardless of whether a claim was incurred or reported prior to the member's withdrawal. Upon withdrawal, a formula set forth in the Pool's intergovernmental contract with its members is applied to determine the amount (if any) to be refunded to the withdrawing member.

**NOTE 11 CONTINGENCIES**

The Authority is subject to constantly changing laws and regulations at both the federal and state levels. These regulations and related enforcement activities reflect a continuing public and governmental concern in providing for environmentally sound solid and chemical waste collection, transportation, storage, treatment and disposal practices. The impact of present and developing laws, regulations and enforcement activities upon the Authority's future capital and operating costs cannot reasonably be estimated, but management believes that such costs may be significant. In addition, there are a number of inherent risks and uncertainties in operating landfill, transfer station, regional collection and composting sites, with related environmental impact challenges possible. However, the future effect, if any, on the Authority cannot be foreseen at the present time.

The Authority is involved in litigation arising in the ordinary course of activities. While these cases may have future financial effect, management, based on advice of counsel, believes that their ultimate outcome will not be material to the financial statements.



**Metro Waste Authority**  
**NOTES TO FINANCIAL STATEMENTS**

**NOTE 12 SUBSEQUENT EVENTS**

On September 12, 2023, a fire broke out in the agency's Metro Recycling Facility which caused significant damage and disruption to the facility. The fire was contained quickly but damage was sustained to certain equipment which caused a disruption in the ability to process material in the facility. The impacted equipment was replaced and put in service and the facility resumed full operations on November 13, 2023. The agency estimates the total damages, as a result of the fire, to be approximately \$2 million. The agency believes the full amount of the loss will be covered by insurance proceeds, other than a small deductible. As of December 26, 2023, approximately 58% of the insurance proceeds have been recouped and the claim is expected to be fully resolved and closed in early 2024.

**REQUIRED SUPPLEMENTARY INFORMATION**

**Metro Waste Authority**  
**SCHEDULE OF THE AUTHORITY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY**  
**Iowa Public Employees' Retirement System**  
**For the Last Nine Fiscal Years\***  
**(In Thousands)**  
**Required Supplementary Information**

	<b>June 30</b>			
	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>
Authority's proportion of the net pension liability	0.082365%	(.029415)%	.069429%	.070181%
Authority's proportionate share of the net pension liability	\$3,112	\$102	\$4,877	\$4,064
Authority covered payroll	\$8,000	\$6,751	\$5,898	\$5,558
Authority's proportionate share of the net pension liability as a percentage of its total covered payroll	39%	2%	83%	73%
IPERS net position as a percentage of the total pension liability	91%	101%	83%	85%

	<b>June 30</b>				
	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Authority's proportion of the net pension liability	.071320%	.070789%	.071600%	.071212%	.074213%
Authority's proportionate share of the net pension liability	\$4,513	\$4,715	\$4,506	\$3,518	\$2,943
Authority covered payroll	\$5,341	\$5,384	\$5,383	\$5,248	\$4,928
Authority's proportionate share of the net pension liability as a percentage of its total covered payroll	84%	88%	84%	67%	60%
IPERS net position as a percentage of the total pension liability	83%	82%	81%	85%	88%

Note: In accordance with GASB Statement No. 68, the amounts presented for each fiscal year were determined as of June 30 of the preceding fiscal year.

\* GASB Statement No. 68 requires ten years of information to be presented in this table. However, until a full ten-year trend is completed, the Authority will present information for those years for which information is available.

See accompanying notes to required supplementary information – net pension liability.

**Metro Waste Authority**  
**SCHEDULE OF AUTHORITY PENSION CONTRIBUTIONS**  
**Iowa Public Employees' Retirement System**  
(In Thousands)  
**Required Supplementary Information**

	<b>Year ended June 30</b>				
	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>
Statutory required contribution	\$ 755	\$ 638	\$ 557	\$ 525	\$ 504
Contributions in relation to the statutorily required contribution	<u>755</u>	<u>638</u>	<u>557</u>	<u>525</u>	<u>504</u>
Contribution deficiency (excess)	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>
Authority's covered payroll	\$8,000	\$6,751	\$5,898	\$5,558	\$5,341
Contributions as a percentage of covered payroll	9.4%	9.4%	9.4%	9.4%	9.4%

	<b>Year ended June 30</b>				
	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Statutory required contribution	\$ 480	\$ 473	\$ 463	\$ 439	\$ 434
Contributions in relation to the statutorily required contribution	<u>480</u>	<u>473</u>	<u>463</u>	<u>439</u>	<u>434</u>
Contribution deficiency (excess)	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>
Authority's covered payroll	\$5,384	\$5,383	\$5,248	\$4,928	\$4,884
Contributions as a percentage of covered payroll	8.9%	8.8%	8.8%	8.9%	8.9%

See accompanying notes to required supplementary information – net pension liability.

**Metro Waste Authority**  
**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION – PENSION LIABILITY**  
**Year ended June 30, 2023**

**CHANGES OF BENEFIT TERMS**

There are no significant changes in benefit terms.

**CHANGES OF ASSUMPTIONS**

The 2022 valuation incorporated the following refinements after a quadrennial experience study:

- Changed mortality assumptions to the PubG-2010 mortality tables with mortality improvements modeled using Scale MP-2021.
- Adjusted retirement rates for regular members.
- Lowered disability rates for regular members.
- Adjusted termination rates for all membership groups.

The 2018 valuation implemented the following refinements as a result of a demographic assumption study dated June 28, 2018:

- Changed mortality assumptions to the RP-2014 mortality tables with mortality improvements modeled using Scale MP-2017.
- Adjusted retirement rates.
- Lowered disability rates.
- Adjusted the probability of a vested regular member electing to receive a deferred benefit.
- Adjusted the merit component of the salary increase assumption.

The 2017 valuation implemented the following refinements as a result of an experience study dated March 24, 2017:

- Decreased the inflation assumption from 3.00% to 2.60%.
- Decreased the assumed rate of interest on member accounts from 3.75% to 3.50% per year.
- Decreased the discount rate from 7.50% to 7.00%.
- Decreased the wage growth assumption from 4.00% to 3.25%.
- Decreased the payroll growth assumption from 4.00% to 3.25%.

The 2014 valuation implemented the following refinements as a result of a quadrennial experience study:

- Decreased the inflation assumption from 3.25% to 3.00%.
- Decreased the assumed rate of interest on member accounts from 4.00% to 3.75% per year.
- Adjusted male mortality rates for retirees in the regular membership group.
- Moved from an open 30 year amortization period to a closed 30 year amortization period for the Unfunded Actuarial Liability (UAL) beginning June 30, 2014. Each year thereafter, changes in the UAL from plan experience will be amortized on a separate closed 20 year period.

## INDEPENDENT AUDITOR'S REPORT ON THE SUPPLEMENTARY INFORMATION

Board of Directors  
Metro Waste Authority  
Des Moines, Iowa

We have audited the financial statements of Metro Waste Authority as of and for the years ended June 30, 2023 and 2022, and our report thereon dated December 26, 2023, which contained an unmodified opinion on those financial statements, appears on pages 4 through 6. Our audits were performed for the purpose of forming an opinion on the financial statements as a whole. The following supplementary information is presented for the purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information, except for the portion marked "unaudited", has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America.

We have also previously audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements for the nine years ended June 30, 2021 (which are not presented herein), and we expressed unmodified opinions on those financial statements.

In our opinion, the supplementary information is fairly stated in all material respects in relation to the financial statements as a whole. The information marked "unaudited" has not been subjected to the auditing procedures applied in the audits of the financial statements, and, accordingly, we do not express an opinion or provide any assurance on it.

*Denman CPA LLP*

**Denman CPA LLP**

West Des Moines, Iowa  
December 26, 2023

**Metro Waste Authority**  
**COMBINING STATEMENT OF REVENUES AND EXPENSES BY DEPARTMENT**  
**Year ended June 30, 2023**

	<u>Combined</u>	<u>Metro Park East Landfill</u>	<u>Metro Park West Landfill</u>
<b>REVENUES</b>			
Tipping fees, service fees and rental revenue	\$56,433,211	\$22,189,881	\$ 1,641,940
<b>EXPENSES</b>			
Operating expenses (excluding depreciation and amortization)	33,746,195	8,567,652	711,287
Provision for landfill closure and postclosure care costs	<u>1,743,676</u>	<u>1,193,301</u>	<u>550,375</u>
Total operating expenses	<u>35,489,871</u>	<u>9,760,953</u>	<u>1,261,662</u>
Operating income (loss) before depreciation and amortization	<u>20,943,340</u>	<u>12,428,928</u>	<u>380,278</u>
<b>DEPRECIATION AND AMORTIZATION</b>			
Depreciation	7,171,341	2,264,336	405,132
Amortization	<u>2,619,387</u>	<u>2,437,925</u>	<u>181,462</u>
	<u>9,790,728</u>	<u>4,702,261</u>	<u>586,594</u>
Operating income (loss)	<u>11,152,612</u>	<u>7,726,667</u>	<u>(206,316)</u>
<b>NONOPERATING REVENUES (EXPENSES)</b>			
Farm income, net of related expenses	149,152	146,752	2,400
Grant revenue	76,664	76,664	-
Investment income	1,478,270	-	-
Gain on sale of capital assets	3,681	-	-
Interest expense	(589,866)	-	-
Other revenues (expenses)	<u>327,607</u>	<u>37,750</u>	<u>(12)</u>
Total nonoperating revenues (expenses)	<u>1,445,508</u>	<u>261,166</u>	<u>2,388</u>
Increase (decrease) in net position	<u>\$12,598,120</u>	<u>\$ 7,987,833</u>	<u>\$ (203,928)</u>

\*Included in administration is activity of the central office, grant programs, engineering studies, and other miscellaneous Authority activity.

**Metro Waste Authority**  
**COMBINING STATEMENT OF REVENUES AND EXPENSES BY DEPARTMENT (continued)**  
**Year ended June 30, 2023**

<u>Metro Transfer Station</u>	<u>Metro Compost Center</u>	<u>Regional Collection Center</u>	<u>Materials Recovery Facility</u>	<u>Recycling</u>	<u>Rental- 300 East Locust</u>	<u>Administration*</u>
\$12,079,728	\$3,289,753	\$ 858,331	\$3,716,989	\$5,067,229	\$ 743,381	\$6,845,979
3,207,599	2,452,924	1,204,905	2,874,786	4,663,739	668,806	9,394,497
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>3,207,599</u>	<u>2,452,924</u>	<u>1,204,905</u>	<u>2,874,786</u>	<u>4,663,739</u>	<u>668,806</u>	<u>9,394,497</u>
<u>8,872,129</u>	<u>836,829</u>	<u>(346,574)</u>	<u>842,203</u>	<u>403,490</u>	<u>74,575</u>	<u>(2,548,518)</u>
1,861,665	250,016	156,423	1,788,159	116,050	247,253	82,307
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>1,861,665</u>	<u>250,016</u>	<u>156,423</u>	<u>1,788,159</u>	<u>116,050</u>	<u>247,253</u>	<u>82,307</u>
<u>7,010,464</u>	<u>586,813</u>	<u>(502,997)</u>	<u>(945,956)</u>	<u>287,440</u>	<u>(172,678)</u>	<u>(2,630,825)</u>
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	1,478,270
—	—	—	—	—	—	3,681
(41,714)	—	—	(548,152)	—	—	—
<u>—</u>	<u>—</u>	<u>76</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>289,793</u>
<u>(41,714)</u>	<u>—</u>	<u>76</u>	<u>(548,152)</u>	<u>—</u>	<u>—</u>	<u>1,771,744</u>
<u>\$6,968,750</u>	<u>\$ 586,813</u>	<u>\$ (502,921)</u>	<u>\$(1,494,108)</u>	<u>\$ 287,440</u>	<u>\$ (172,678)</u>	<u>\$ (859,081)</u>



**Metro Waste Authority**  
**COMBINING SUMMARY OF OPERATING EXPENSES, EXCLUDING**  
**DEPRECIATION AND AMORTIZATION, BY DEPARTMENT**  
**Year ended June 30, 2023**

	<u>Combined</u>	<u>Metro Park East Landfill</u>	<u>Metro Park West Landfill</u>
Salaries	\$ 8,622,643	\$2,910,522	\$ 201,714
Payroll taxes	607,744	211,199	20,939
Benefits	944,932	421,220	48,587
Site maintenance	790,927	401,170	27,287
Recycling programs	10,349,186	-	-
Commodity share fee	447,130	-	-
Vehicle repairs and maintenance	2,565,855	886,854	68,019
Vehicle fuel	1,859,429	1,566,249	83,427
Computer maintenance	378,978	34,261	-
Minor equipment	90,059	64,504	3,742
Professional services	296,740	7,101	-
Engineering services	191,424	130,711	55,063
Graphics design/contract printing	63,675	37,893	29
Contract disposal	571,935	194,761	-
Property taxes and host fees	370,155	114,584	-
Telephone and utilities	518,943	149,705	20,765
Building and office supplies	711,941	282,403	16,260
Advertising	369,843	64,982	990
Travel	40,738	6,927	82
Postage	12,032	99	(135)
Credit card discount	414,743	354,199	2,455
Miscellaneous	194,645	6,241	4,633
Insurance	494,838	140,369	28,497
Leachate processing	704,943	576,135	128,808
Machinery and equipment rental	36,416	5,563	125
Office and facilities rent	172,800	-	-
Yard waste collection and bags	1,911,349	-	-
Community cleanup grants	12,110	-	-
Environmental Management System	42	-	-
Total operating expenses, excluding depreciation and amortization	<u>\$33,746,195</u>	<u>\$8,567,652</u>	<u>\$ 711,287</u>

\*Included in administration is activity of the central office, grant programs, engineering studies, and other miscellaneous Authority activity.

**Metro Waste Authority**  
**COMBINING SUMMARY OF OPERATING EXPENSES, EXCLUDING (continued)**  
**DEPRECIATION AND AMORTIZATION, BY DEPARTMENT**  
**Year ended June 30, 2023**

<u>Metro Transfer Station</u>	<u>Metro Compost Center</u>	<u>Regional Collection Center</u>	<u>Materials Recovery Facility</u>	<u>Recycling</u>	<u>Rental- 300 East Locust</u>	<u>Administration*</u>
\$1,385,365	\$ 104,461	\$ 501,506	\$1,483,212	\$ 584,677	\$ -	\$1,451,186
110,805	17,371	39,460	77,444	37,697	-	92,829
198,991	16,609	54,221	79,481	29,962	-	95,861
28,625	15,008	17,854	3,558	-	297,425	-
-	-	80,492	-	3,740,413	-	6,528,281
-	-	-	447,130	-	-	-
1,011,527	262,594	5,777	306,160	24,924	-	-
137,266	6,819	10,448	45,316	-	-	9,904
6,186	454	2,360	4,852	199	-	330,666
5,630	1,059	1,315	10,368	22	-	3,419
-	-	-	3,050	-	-	286,589
3,150	2,500	-	-	-	-	-
-	7,401	1,930	3,971	7,977	-	4,474
-	-	265,958	-	110,118	1,098	-
54,156	-	31,340	-	-	170,075	-
60,040	4,042	40,239	149,432	-	62,162	32,558
137,525	346	49,546	81,675	2,252	78,527	63,407
5,396	69,998	54,245	17,011	106,241	-	50,980
-	-	2,326	4,054	81	-	27,268
-	-	24	117	-	-	11,927
-	499	(24)	-	-	-	57,614
1,182	2,422	4,175	34,891	88	10,731	130,282
61,755	29,332	41,239	93,470	19,088	48,788	32,300
-	-	-	-	-	-	-
-	660	474	29,594	-	-	-
-	-	-	-	-	-	172,800
-	1,911,349	-	-	-	-	-
-	-	-	-	-	-	12,110
-	-	-	-	-	-	42
<u>\$3,207,599</u>	<u>\$2,452,924</u>	<u>\$1,204,905</u>	<u>\$2,874,786</u>	<u>\$4,663,739</u>	<u>\$ 668,806</u>	<u>\$9,394,497</u>

**Metro Waste Authority**  
**SUMMARY OF HISTORICAL OPERATING INFORMATION**

	<b>Year ended June 30</b>			
	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>
<b>REVENUES</b>	\$56,433,211	\$52,438,779	\$44,140,809	\$40,902,064
<b>EXPENSES</b>				
Operating expenses (excluding depreciation and amortization)	33,746,195	30,102,499	26,761,728	25,003,038
Provision for landfill closure and postclosure care costs	<u>1,743,676</u>	<u>2,332,350</u>	<u>1,519,558</u>	<u>870,451</u>
Operating income before depreciation and amortization	<u>20,943,340</u>	<u>20,003,930</u>	<u>15,859,523</u>	<u>15,028,575</u>
<b>DEPRECIATION AND AMORTIZATION</b>				
Depreciation	7,171,341	6,593,377	5,651,441	5,457,131
Amortization	<u>2,619,387</u>	<u>2,424,311</u>	<u>2,366,453</u>	<u>2,651,437</u>
	<u>9,790,728</u>	<u>9,017,688</u>	<u>8,017,894</u>	<u>8,108,568</u>
Operating income	<u>11,152,612</u>	<u>10,986,242</u>	<u>7,841,629</u>	<u>6,920,007</u>
<b>NONOPERATING REVENUES (EXPENSES)</b>				
Farm income, net of related expenses	149,152	132,332	203,925	1,845
Grant revenue	76,664	141,947	-	-
Investment income (loss)	1,478,270	(982,889)	(43,317)	800,220
Gain (loss) on sale of capital assets	3,681	430,541	12,025	127,965
Interest expense	(589,866)	(626,826)	(737,327)	(341,560)
Debt issuance costs	-	-	-	(782,367)
Other	<u>327,607</u>	<u>391,679</u>	<u>162,536</u>	<u>254,590</u>
Total nonoperating revenues (expenses)	<u>1,445,508</u>	<u>(513,216)</u>	<u>(402,158)</u>	<u>60,693</u>
Increase in net position	<u>\$12,598,120</u>	<u>\$10,473,026</u>	<u>\$ 7,439,471</u>	<u>\$ 6,980,700</u>
Percent increase (decrease) from prior period				
Revenues	7.61%	18.80%	7.92%	8.23%
Operating expenses excluding depreciation and amortization	12.09%	12.48%	7.03%	2.52%
Provision for depreciation and amortization	8.57%	12.47%	(1.12)%	26.70%
Tonnage delivered to landfill (unaudited)	893,250	898,430	805,920	792,966
Compost tonnage (unaudited)	37,779	38,849	45,185	40,865

\* During 2016, the Authority opened new cells at Metro Park East and Metro Park West and introduced a new method of compacting. These activities increased the capacity of the landfill and decreased costs.

**Metro Waste Authority**  
**SUMMARY OF HISTORICAL OPERATING INFORMATION (continued)**

Year ended June 30						
<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016*</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
\$37,793,275	\$37,672,758	\$36,078,013	\$34,651,660	\$33,097,552	\$30,622,815	\$26,865,810
24,387,973	23,165,492	22,694,201	22,663,100	20,991,551	21,069,975	19,084,041
<u>3,102,483</u>	<u>3,225,229</u>	<u>1,492,485</u>	<u>(1,640,601)</u>	<u>1,300,385</u>	<u>1,548,092</u>	<u>1,543,947</u>
<u>10,302,819</u>	<u>11,282,037</u>	<u>11,891,327</u>	<u>13,629,161</u>	<u>10,805,616</u>	<u>8,004,748</u>	<u>6,237,822</u>
5,442,460	5,164,811	4,909,781	4,231,989	4,176,241	3,877,283	3,513,636
<u>957,452</u>	<u>1,081,891</u>	<u>1,903,815</u>	<u>1,383,954</u>	<u>1,326,790</u>	<u>1,862,711</u>	<u>1,794,940</u>
<u>6,399,912</u>	<u>6,246,702</u>	<u>6,813,596</u>	<u>5,615,943</u>	<u>5,503,031</u>	<u>5,739,994</u>	<u>5,308,576</u>
<u>3,902,907</u>	<u>5,035,335</u>	<u>5,077,731</u>	<u>8,013,218</u>	<u>5,302,585</u>	<u>2,264,754</u>	<u>929,246</u>
44,876	91,946	213,447	101,745	68,180	21,439	102,095
-	-	-	-	-	-	-
1,512,896	136,672	3,634	717,082	565,037	474,451	(344,085)
2,456	126,099	(123,018)	-	267,062	(238,539)	8,640
(395,075)	(418,164)	(453,663)	(493,018)	(534,252)	(144,913)	(161,084)
-	-	-	-	-	-	-
<u>62,506</u>	<u>70,523</u>	<u>207,610</u>	<u>4,333</u>	<u>9,856</u>	<u>7,519</u>	<u>26,079</u>
<u>1,227,659</u>	<u>7,076</u>	<u>(151,990)</u>	<u>330,142</u>	<u>375,883</u>	<u>119,957</u>	<u>(368,355)</u>
<u>\$ 5,130,566</u>	<u>\$ 5,042,411</u>	<u>\$ 4,925,741</u>	<u>\$ 8,343,360</u>	<u>\$ 5,678,468</u>	<u>\$ 2,384,711</u>	<u>\$ 560,891</u>
0.32%	4.42%	4.12%	4.69%	8.08%	13.98%	2.86%
5.28%	2.08%	0.14%	7.96%	(0.37)%	10.37%	6.78%
2.45%	(8.32)%	21.33%	2.05%	(4.13)%	8.13%	(7.70)%
741,382	750,706	710,050	685,898	673,870	629,003	575,553
34,783	35,128	35,479	47,221	48,747	35,566	32,611

**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER  
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON  
AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE  
WITH GOVERNMENT AUDITING STANDARDS**

Board of Directors  
Metro Waste Authority  
Des Moines, Iowa

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Metro Waste Authority (the Authority) as of and for the year ended June 30, 2023, and the related notes to financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated December 26, 2023.

**Report on Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered Metro Waste Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Authority's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We identified certain deficiencies in internal control, described in the accompanying schedule of findings as item 2023-001 and 2023-002, that we consider to be material weaknesses.

## **Report on Compliance and Other Matters**

As part of obtaining reasonable assurance about whether Metro Waste Authority's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Comments involving statutory and other legal matters about the Authority's operations for the year ended June 30, 2023 are based exclusively on knowledge obtained from procedures performed during our audit of the financial statements of the Authority. Since our audit was based on tests and samples, not all transactions that might have had an impact on the comments were necessarily audited. The comments involving statutory and other legal matters are not intended to constitute legal interpretations of those statutes.

## **Metro Waste Authority's Responses to the Findings**

*Government Auditing Standards* requires the auditor to perform limited procedures on the Authority's responses to the findings identified in our audit and described in the accompanying schedule of findings. The Authority's responses were not subject to the other auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on them.

## **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

  
Denman CPA LLP

West Des Moines, Iowa  
December 26, 2023

**Metro Waste Authority  
SCHEDULE OF FINDINGS  
Year ended June 30, 2023**

**SECTION I – FINANCIAL STATEMENT FINDINGS**

**INTERNAL CONTROL DEFICIENCIES**

**2023-001 RECONCILIATIONS OF CASH ACCOUNTS AND CUSTOMER BALANCES**

**Material Weakness**

**Criteria**

Timely recurring reconciliations of the Authority's cash accounts and customer receivable ledgers are an integral part of the Authority's internal control over financial reporting and ensure the accuracy of the Authority's reported cash balances and balances owed to the Authority by its customers. Reconciliations should be performed monthly as part of the Authority's recurring month-end closing procedures.

**Condition**

While Authority staff were attempting to perform monthly reconciliation of cash accounts and customer account balances, staff were identifying recurring discrepancies which were unable to be resolved in a timely manner.

**Cause**

Discrepancies in cash account reconciliations and customer account balances appear to be the result of inconsistencies in how customer payments are being recorded in the subsidiary ledger and the general ledger.

**Effect**

The Authority's internally prepared financial statements were materially inaccurate. Correcting entries were required as part of the audit procedures to correct management's prepared financial statements. Accounting procedures being utilized by staff may result in inaccurate customer balances.

**Recommendation**

The Authority should review its current procedures for posting customer payments in order to better align the posting to the general ledger with the cash receipt. Additional training of staff on the Authority's subsidiary ledger systems may be necessary.

**Response**

During the year ended June 30, 2023, there was significant turnover in the finance department of the agency and understaffing for a portion of the year. This led to a loss of knowledge of and familiarity with the agency's systems and processes and created difficulties in keeping up with the workflow. Management believes the finance department has since been fully and appropriately staffed, and these issues are being addressed and improvements underway. Progress in these areas will remain a priority of the finance department to ensure financial records are accurate and complete.

**Conclusion**

Response accepted.

**Metro Waste Authority**  
**SCHEDULE OF FINDINGS (continued)**  
**Year ended June 30, 2023**

**SECTION I – FINANCIAL STATEMENT FINDINGS**

**INTERNAL CONTROL DEFICIENCIES**

**2023-002 CONTRACT MANAGEMENT**

**Material Weakness**

**Criteria**

Revenues and expenses under U.S. GAAP are to be recognized within the financial statements during the fiscal period in which the revenue and expense were incurred. A careful review of transactions by staff may be required in order to properly identify the correct fiscal period in which a transaction should be recognized.

**Condition**

The Authority provides contract management services for many metro communities for solid waste pick up. These contract management services result in significant monthly revenues (for charges to local communities) and expenses (for charges from waste haulers). The Authority was not regularly recognizing these revenues and expenses for these services during the month the services were performed, resulting in material adjustments to the Authority's financial statements being required as part of the audit procedures.

**Cause**

Staff were not reviewing the invoices received from waste haulers to ensure posting to the proper period. In certain months, charges billed to local communities were not recognized in the period the service was performed, but rather in the month the services were billed.

**Effect**

Adjusting entries were required to management's internally prepared financial statements in order to properly recognize the transactions.

**Recommendation**

Transactions should be recognized when the transaction occurs. Management should review the initial recording of transactions to ensure proper recognition of these transactions prior to approving the monthly financial statements.

**Response**

Turnover within the finance department during the year, including in the finance administrator role, led to errors in the way certain transactions were recorded on the system. Instances where invoice dates varied from dates of service led to uncertainty as to how these transactions should be recorded. Management believes that the finance department is now fully and appropriately staffed and focus will be placed on ensuring all transactions are properly recorded. In addition, certain changes relative to the way transactions are processed have been made to better prevent errors like these in the future.

**Conclusion**

Response accepted.

**INSTANCES OF NONCOMPLIANCE**

No matters were noted.



**Metro Waste Authority  
SCHEDULE OF FINDINGS (continued)  
Year ended June 30, 2023**

**Part II—Findings Related to Required Statutory Reporting**

**23-II-A QUESTIONABLE EXPENSES**

No expenses we believe may not meet the requirements of public purpose as defined in an Attorney General's opinion dated April 25, 1979 were noted.

**23-II-B TRAVEL EXPENSE**

No expenditures of Authority money for travel expenses of spouses of Authority officials or employees were noted.

**23-II-C RESTRICTED DONOR ACTIVITY**

No transactions were noted between the Authority, Authority officials, Authority employees and restricted donors, in compliance with Chapter 65B of the Code of Iowa.

**23-II-D BOARD MINUTES**

No transactions were found that we believe should have been approved in the Authority minutes but were not.

**23-II-E DEPOSITS AND INVESTMENTS**

No instances of noncompliance with the deposit and investment provisions of Chapters 12B and 12C of the Code of Iowa and the Authority's investment policy were noted.

**23-II-F SOLID WASTE FEES RETAINAGE**

No instances of noncompliance with the solid waste fees used or retained in accordance with Chapter 455B.310 of the Code of Iowa were noted.

**23-II-G FINANCIAL ASSURANCE**

The Authority has elected to demonstrate financial assurance for closure and postclosure care by establishing a local government dedicated fund and through the local government financial test mechanism, both as provided in Chapter 567-113.14(6) of the Iowa Administration Code (IAC). The local government financial test mechanism is in place to assure those costs not covered by the dedicated fund mechanism. Financial assurance, as submitted to the Iowa Department of Natural Resources on April 1, 2023, is demonstrated as follows:

	<u>Closure/ Postclosure Care</u>
Total estimated costs for closure and postclosure care	\$27,440,370
Less: Amount Authority has restricted for closure and postclosure care (dedicated fund mechanism)	<u>20,559,663</u>
Remaining costs to be assured through the local government financial test	<u>\$ 6,880,707</u>
Financial assurance through the local government financial test	<u>\$ 6,880,707</u>

**ATTACHMENT K**

**2023 OVER 2022 INFLATION FACTOR  
ADJUSTMENT OF COST ESTIMATES FOR INFLATION**

## The 'Inflation Factor' – 2023 over 2022 for Landfill Financial Assistance Cost Estimates

Ref. Iowa Admin. Code [567] sub-sections (3), (4) & (5) in each of sections 113.14, 115.31, 114.31 & 103.3

Every Annual Financial Assurance Report must UPDATE Closure, Postclosure &/or Corrective Action Cost Estimates, **IN CURRENT DOLLARS**, certified by an Iowa-licensed professional engineer.

IF no other re-assessment/computations are done\*\*, Cost Estimates HAVE TO AT LEAST BE adjusted for annual inflation By **multiplying** last year's Cost Estimates **times** the **Inflation Factor**.

As of January 25, 2024, the Inflation Factor for this year's Financial Assurance Reports is **1.026**

**as Derived from Gross Domestic Product statistics, using the formula:**

Implicit Price Deflator of most recent quarter	÷	<b>= Inflation Factor</b>
Implicit Price Deflator of previous year's same corresponding quarter		

Find the Implicit Price Deflators for GROSS DOMESTIC PRODUCT at this website of the U.S. Dept. of Commerce, Bureau of Economic Analysis (BEA):  
<https://apps.bea.gov/iTable/?reqid=19&step=3&isuri=1&1921=survey&1903=13>

**So it is then that:**

$$\frac{2023 \text{ 4}^{\text{th}} \text{ quarter implicit price deflator}}{2022 \text{ 4}^{\text{th}} \text{ quarter implicit price deflator}} = \text{Inflation Factor}$$

<b>123.226</b>	<b>= 1.026</b>
<b>120.093</b>	

*as An Example*, ---with No other re-assessment/re-computations\*\* being made...

IF, Last Year's combined Cost Estimates = **\$2,000,000**

Applying **this year's Inflation Factor** then *means*:

$$\mathbf{\$2,000,000 \times 1.026 = \$2,052,000}$$

*i.e. This Year's updated combined Cost Estimates adjusted for inflation.*

Source of the Implicit Price Deflators for **GROSS DOMESTIC PRODUCT**:

U.S. Department of Commerce  
Bureau of Economic Analysis (BEA)  
4600 Silver Hill Road  
Washington, DC 20233  
Ph. (301) 278-9004  
Link for an e-mail: [Submit a Customer Service Request](#)

\*\* **If Cost Estimates are** re-assessed and re-computed and yet found to be effectively the same as last year, **then** a statement to that effect has to be included with the Financial Assurance Report materials.