

Haley Griffith (adpce.ad)

Subject: RE: Eco-Vista Class 1 Landfill - 2023 AEIR (0290-S1-R4; AFIN: 72-00144)

From: Brad Fureigh [mailto:bfureigh@promusengineering.com]

Sent: Friday, March 29, 2024 4:27 PM

To: Greg Banic (adpce.ad) <Greg.Banic@adeq.state.ar.us>; Jason Gilkey (adpce.ad) <jason.gilkey@adeq.state.ar.us>

Cc: Simmons, Carl <csimmons@wm.com>; Small, Blake <bsmall@wm.com>; Tennison, Don <dtenniso@wm.com>; Reynolds, Jodi <jreyno10@wm.com>; Conrad, David <DConrad@wm.com>; Jonathan King <jking@promusengineering.com>

Subject: Eco-Vista Class 1 Landfill - 2023 AEIR (0290-S1-R4; AFIN: 72-00144)

Good afternoon Greg,

Please find attached the 2023 Annual Engineering Inspection Report for the Eco-Vista Class 1 Landfill (Permit No. 0290-S1-R4; AFIN: 72-00144). Please let us know if you have any questions or comments.

Thanks!

Brad N. Fureigh, PE
Principal Engineer | Promus Engineering, LLC
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AFIN: 72-00144
PMT#: 0290-S1-R4
Received
<i>By Haley Griffith at 9:21 am, Apr 1, 2024</i>
DOC ID#: 85297
TO: GB>FILE <HG

2023 ANNUAL ENGINEERING INSPECTION REPORT

WM Eco-Vista Class 1 Landfill Springdale, Arkansas

Permit No. 0290-S1-R4
AFIN: 72-00144

March 29, 2024
Promus Project No. 240011

Prepared for:
Eco-Vista, LLC



Prepared by:



ANNUAL ENGINEERING INSPECTION REPORT (AEIR) FORM

Reporting Year: 2023

Note: Check applicable landfill class. Class 1 (Reg 22.423(b)) X, Class 3 (22.522(a)) , Class 4 (22.619(b))

Facility Name: Waste Management Eco-Vista Class 1 Landfill AFIN: 72-00144 Permit #: 0290-S1-R4 Landfill Class: 1

Report Submittal Date: March 29, 2024 Date of Landfill Site Inspection by Certifying Engineer: March 21, 2024

***Complete the form as indicated
Instructions are bolded and italicized.***

COLUMN TO BE COMPLETED BY REPORTER

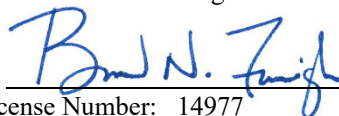


Item	Regulation Reference	Item Description	Report Information/Comments/Remarks	Attachment Reference
1	22.423(b)(1) 22.522(a)(1) 22.619(b)(1)	Remaining volume in current cell.	a) <u>211,300</u> cubic yards	
		Projected date of opening new cell.	b) Date: <u>2024</u>	
2	22.423(b)(2) 22.522(a)(2) 22.619(b)(2)	Remaining volume of all permitted units.	a) <u>7,461,850</u> cubic yards	
		Total air space used during the reporting period.	b) <u>559,350</u> cubic yards	
		Estimated remaining site life (years) based on utilization rate during the reporting period. <i>Note: Itemize current permitted unit/cell information - use attachment if necessary.</i>	c) Landfill Unit/Cell remaining life: Landfill unit/cell <u>Cells 6-12</u> , <u>0.38</u> years. Landfill unit/cell _____, ____ years. Landfill unit/cell _____, ____ years. d) Entire permitted landfill: <u>13.3*</u> years remaining life. <i>* Pending final decision of permit appeal.</i>	
3	22.423(b)(3) 22.522(a)(3) 22.619(b)(3)	Documentation of fill progression in compliance with permit plans, specs and operating plan and narrative. <i>Note: Provide narrative regarding fill progression during the reporting period. Be specific about landfill unit/cell designations (example: Cell 1, Phase A completely filled; Cell 2, Phase A, 50% full, being filled south to north as of December 31). Specifically note any overfill conditions.</i>	a) Progression narrative: <u>General fill progression has been from east to west in Cells 6 to 12. Most of the waste is currently being placed in Cells 9 through 11. The cells are being filled to the maximum capacity that can be achieved without affecting the efficiency of waste placement. Cells 1-8 are approximately 99% filled and Cells 9-12 are about 99% filled. Based on review of the approved Permit Drawings, the landfill is following the planned fill progression.</u>	

4	22.423(b)(4) 22.522(a)(4) 22.619(b)(4)	Documentation of compliance with regulatory operating requirements, permit conditions, approved operating plan, and other applicable regulations. Note: Review current operating plans, and permit conditions. Include photographs of engineer's inspection as Attachment A. Check for weekly/monthly operational logs, waste volume records in and out of landfill, unauthorized waste form sheets, waste cover maintenance, stormwater reports to ADEQ, and wet weather repair information.	a) Weekly/monthly operational logs exist (Y/N)? <u>Y</u> b) Photos of AEIR inspection attached (Y/N)? <u>Y</u> c) Waste volume in and out records exist (Y/N)? <u>Y</u> d) Unauthorized waste forms exist (Y/N)? <u>Y</u> e) Daily/weekly cover adequate at time of inspection (Y/N)? <u>Y</u> f) Alternative Daily Cover (ADC) Plan located onsite (Y/N)? <u>Y</u> Operations in compliance with ADC Plan (Y/N)? <u>Y</u> g) Liquid Waste Management (LWM) Plan located onsite (Y/N)? <u>Y</u> Operations in compliance with LWM Plan (Y/N)? <u>Y</u> h) Liquids received to be bulked during reporting period: _____ gallons <u>400</u> tons Permit Condition 17(e): Incoming Liquid Waste: 400 tons Recirculated Leachate: 0 gallons Incoming Solid Waste: 455,059 tons $\frac{400 \text{ tons}-\text{Liquid Waste}}{455,059 \text{ tons}-\text{Solid Waste}} \times 100 = 0.9\% \quad \boxed{0.09\% < 15\% \checkmark}$ i) Waste cover of inactive areas maintained adequately (Y/N)? <u>Y</u> j) Net amount of waste disposed in landfill during reporting period: _____ cubic yards <u>455,059</u> tons k) Leachate head level less than 1' on liner at time of inspection (Y/N)? <u>Y</u>	A
5	22.423(b)(5) 22.522(a)(5) 22.619(b)(5)	Updated contour map that depicts: Note: Provide updated drawing(s) and final cover permit drawing as Attachment B – discuss any discrepancies. Max. contour interval = 2 feet	a) Updated contour drawing attached (Y/N)? <u>Y</u> b) Final cover permit drawing attached (Y/N)? <u>Y</u> c) List all discrepancies here: <u>N/A</u> d) Is there an overfill condition (Y/N)? <u>N</u>	B
		(i) horizontal and vertical extent of active and inactive fill areas;		
		(ii) status of all permitted units/cells; (Note: Label all active (working face, bulking area, stockpiles), inactive, closed and interim cover areas).	a) Currently, does the facility have sufficient on-site quantities and types of soils for liner and cover construction of permitted units/cells (Y/N)? <u>Y</u> b) If not, where will deficiency shortfalls be obtained (be specific)? _____ c) Is the current Design Narrative earthwork balance accurate (Y/N)? <u>Y</u>	
		(iii) survey grid (required by 22.426); Note: Include benchmarks and horizontal controls		
		(iv) location of other visible surface features or improvements (e.g., roads, buildings, gas control systems, etc.); Note: Include leachate risers, manholes, monitoring wells, gas wells, etc.		
		(v) the person responsible for gathering the survey data and the date survey data was taken to prepare the map. Reminder: Reporting period is calendar	a) Name: <u>Southern Resources Mapping</u> b) Name of person using the data to produce contour map:	

		<i>year. Survey data should be collected to reflect the AEIR reporting period.</i>	<u>John Matthews, P.E.</u> c) Date survey data was collected: <u>December 5, 2023</u>	
6	22.423(b)(6) 22.522(a)(6) 22.619(b)(6)	Quantity, location, and characteristics of leachate collected, recirculated, and disposed. Note: Provide analytical report as Attachment C. Provide brief narrative on this form in space provided about leachate sources, how leachate is collected, measured and disposed. Also explained how the leachate head on the landfill liner is monitored and measured.	a) Leachate Collected: <u>19,136,065</u> gallons b) Leachate Disposed: <u>19,136,065</u> gallons c) Leachate Recirculated: <u>0</u> gallons d) Leachate Recirculation Plan exists (Y/N)? <u>N</u> ADEQ approval Doc # <u>N/A</u> e) Leachate operating records exist (Y/N)? <u>Y</u> f) Leachate analytical report attached (Y/N)? <u>N</u> (See Doc ID: 83462, 83698, 83925, 84157, 84226, 84291, 84400, 84473, 84695, 84801, 84915, 84981, 84982) g) Leachate narrative (collection, measurements and disposal): <u>Leachate is collected and pumped from each cell sump via a dual contained forcemain and conveyed to above ground storage tanks for temporary storage. Leachate is pumped from the tanks to the NACA Wastewater Treatment Plant.</u> h) Leachate narrative (verifying <1' head on liner system): <u>Cells 1 through 12 are constructed with a leachate collection system consisting of a sump and 18-inch diameter side slope riser. An automatically activated pump equipped with pressure transducers, with pre-set elevations (head levels) to turn the pump on and off, is located in the side slope riser pipes. The head levels are displayed on the control panels and are recorded by site personnel.</u>	C
7	22.423(b)(7) 22.522(a)(7) 22.619(b)(7)	Maintenance of stormwater controls and best management practices for erosion control. Note: List any upset conditions during the reporting period (i.e., washouts, etc...). Also, include narrative about vegetation maintenance and repair.	a) <i>Briefly list maintenance activities and upset conditions here:</i> <u>Prior to offsite discharges, storm water is diverted to on-site sedimentation basins via drainage berms, downdrains and perimeter ditches. During the reporting period, typical silt removal maintenance was performed in ditches and ponds. The Phase 1 and Phase 2 closure areas of the active Class 1 landfill has established a good stand of vegetation. Areas with intermediate cover were seeded and establishing a good growth of vegetation. Temporary drainage swales and downdrains have been installed in areas with intermediate cover. The site implements erosion and sediment control measures include seeding and mulching, diversion berms, silt fencing and rock check dams as needed.</u>	
8	22.423(b)(8) 22.619(b)(8)	Status of capping and closure of completed areas. Note: List areas with acreage that have received interim or final cover. Include total landfilled area acreage not yet under final certified closed cover. Note: "Certified closed" means the facility has received an approval letter from ADEQ accepting the engineer's closure certification report.	a) Lndfl unit/cell <u>Old Class 1 Area</u> , <u>66</u> acres. Intrm or Final Cover (I/F): <u>F</u> b) Lndfl unit/cell <u>Cells 1-8</u> , <u>46</u> acres. Intrm or Final Cover (I/F): <u>I</u> d) Lndfl unit/cell <u>Cells 9-12</u> , <u>33.8</u> acres. Intrm or Final Cover (I/F): <u>I</u> f) Acres of disposed waste not under final certified cover: <u>79.8</u> acres	

			g) Acres of disposed waste area that have interim cover: <u>79.8</u> acres	
9	22.423(b)(9) 22.522(a)(8) 22.619(b)(9)	Status of remedial or corrective action activities. <i>Note: List corrective action events during reporting period (e.g., seeps and erosion correction, leachate spills, unauthorized waste handling and removal, etc...), and indicate whether action was taken in response to an ADEQ inspection.</i> <i>Note: If trust fund financial assurance mechanism is utilized, the trust fund must fully fund all acres permitted.</i>	a) <i>Briefly list corrective actions events here:</i> <u>During the reporting period, the DEQ noted the following during the quarterly inspections: exposed waste from depressions, inadequate daily cover (waste flagging), and leachate seeps.</u> b) Were any of the corrective actions taken in response to a DEQ inspection (Y/N)? <u>Y</u> c) Current status of corrective actions: <u>Completed</u> d) Did corrective actions permanently solve the conditions (Y/N)? <u>Y</u> <i>Explain briefly:</i> <u>Corrective actions for the above-mentioned deficiencies were completed within 30 days of the DEQ inspections prompting the remediation.</u>	
10	22.423(b)(10) 22.522(a)(9) 22.619(b)(10)	Updated Financial Assurance documentation as required by Chapter 14. <i>Note: Include copy of most recent financial assurance documentation as Attachment D. Also, include updated closure and post closure cost estimated as an attachment– recommend to use the Closure Costs and Post-closure Care Costs Worksheet located at ADEQ - Solid Waste - Technical Branch Home Page Specific links to the worksheets: http://www.adeg.state.ar.us/solwaste/branch_technical/pdfs/closure_costs_worksheet.xlsx and http://www.adeg.state.ar.us/solwaste/branch_technical/pdfs/post_closure_care_costs_worksheet.xlsx. Show detailed calculations of cost items in tabular format with specific item breakdowns. Also, show source of unit cost information and/or inflationary factor adjustments – use ADEQ factors where applicable. If updated unit cost information is used instead of inflationary factors, show the source of unit cost information. Confirm estimates are based on largest area ever requiring final cover.</i>	a) Size of facility property under current permit? <u>609.2</u> acres b) Size of actual permitted disposal area? <u>155.8*</u> acres <i>* Pending final decision of permit appeal.</i> c) What is the current total permitted disposal area that contains disposed waste but is not certified closed? <u>79.8</u> acres d) Updated closure cost estimate amount: \$ <u>8,352,117</u> e) Is the closure cost estimate based on the largest area ever requiring closure (Y/N)? <u>Y</u> f) Is the existing closure financial assurance adequate for acreage not yet certified closed (Y/N)?: <u>Y</u> g) Updated post closure care cost estimate amount: \$ <u>12,736,586</u> <i>(with 80% Reduction: \$2,547,317)</i> h) Is the existing post closure care financial assurance adequate for all permitted areas (Y/N)?: <u>Y</u> i) Is the financial assurance mechanism a trust fund (Y/N)? <u>N</u> j) Are the sources of information for updated unit cost line items shown on the cost estimate calculations (Y/N?): <u>Y</u> k) Do the unit cost items for soil cover material include actual third party cost of materials and labor (Y/N?): <u>Y</u>	D
11	22.423(b)(11) 22.522(a)(10) 22.619(b)(11)	Revised or updated facility Closure Plan in accordance with Chapter 13. <i>Note: Provide updated Closure Plan as Attachment E if facility obtained a permit modification during the reporting period that affects the closure and/or post closure care.</i>	a) Was an updated Closure Plan required during this reporting period (Y/N)?: <u>N</u> b) Is an updated Closure Plan attached herein (Y/N)? <u>N</u>	

12	22.423(b)(12) 22.522(a)(11) 22.619(b)(12)	<p>Other items that affect compliance.</p> <p>Note: Include an ADEQ enforcement activity summary (solid waste, water, air, hazardous waste related) and , status of operating and permit fees. Also, include brief narrative concerning groundwater monitoring reports, landfill gas, leachate recirculation, alternate daily cover, etc...</p>	<p>a) Are there current ADEQ enforcement actions (Y/N)? <u> N </u></p> <p>b) Summary of enforcement actions: _____</p> <p>c) Are operating and permit fees payments up-to-date (Y/N)? <u> Y </u> If not explain: _____</p> <p>Additional Information:</p> <p>d) Does the facility monitor groundwater (Y/N)?: <u> Y </u> If so, is it detection monitoring or assessment monitoring?: <u> Assessment monitoring program </u></p> <p>e) What is the groundwater analytical sampling frequency? <u> 3 </u> months</p> <p>f) Does the facility collect landfill gas (Y/N)?: <u> Y </u></p> <p>g) Does the facility have a Gas Monitoring Plan (Y/N)? <u> Y </u></p> <p>h) Does the facility have gas monitoring probes (Y/N)? <u> Y </u></p> <p>i) Does the facility use an alternate daily cover (ADC)(Y/N)? <u> Y </u> If so, what type of ADC is used: <u> Synthetic Tarps, Auto shredder fluff, RusFoam </u> If so, list document id# approving ADC: <u> Permit 0290-S1-R4 (Permit condition #18); DIN's 30847, 74677, 80902 </u></p> <p>j) Does the facility have a Liquid Waste Management (LWM) Plan (Y/N)? <u> Y </u> If so, list document id# approving the LWM Plan: <u> 82573 </u></p> <p>k) Date and document id # of currently approved Operating Plan and Narrative: Date: <u> September 2022 </u> Doc#: <u> 82573 </u></p> <p>l) Date and document id # for currently approved Closure/ Post Closure Plan: Date: <u> September 2022 </u> Doc#: <u> 82573 </u></p> <p>m) Date and document id # of currently approved Permit Drawings: Date: <u> September 2022 </u> Doc#: <u> 82573 </u></p> <p>n) Date and document id # of currently approved Design Narrative: Date: <u> September 2022 </u> Doc#: <u> 82573 </u></p> <p>o) Are weigh scales utilized at the landfill (Y/N)? <u> Y </u></p> <p>p) Does the final cap include a synthetic liner (Y/N)? <u> Y </u></p> <p>q) Does the final cap include clay liner (Y/N)? <u> Y </u></p> <p>r) Total current permitted landfill volume: <u> 23,364,000 </u> cubic yards</p> <ul style="list-style-type: none"> ▪ Old Landfill - Site 3 & 4/North and South Phases = 5,990,000 CY; ▪ 10% Mod. in 2006 = 596,000 CY; 46-AC LEA in 2006 = 4,500,000 CY; ▪ Major Mod. Lateral Expansion in 2014 = 4,904,000 CY ▪ Major Mod. Lateral Expansion (Valley Fill) in 2021 = 7,374,000 CY* * pending final decision on permit appeal. 	
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13	22.423(b) 22.522(a) 22.619(b)	Certification of AEIR Report: "I have inspected the landfill site and have prepared this report to reflect operational compliance with permit conditions, permit plans, specifications, narrative, and all applicable regulations"	<p>a) Arkansas Licensed Engineer:</p> <p>Sign: <u></u> Date: <u>3/29/2024</u></p> <p>b) License Number: <u>14977</u></p> <p>c) Attach seal here:</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	
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Attachment A

Photographic Log



PHOTOGRAPHIC RECORD OF CONSTRUCTION



Photo No. 1

Looking southeast at the north slope of the active Class 1 Landfill.

Photo No. 2
Looking east at the west slope of the active Class 1 Landfill.



Photo No. 3

Looking north at the east slope of the active Class 1 Landfill that is under final cover.

PHOTOGRAPHIC RECORD OF CONSTRUCTION



Photo No. 4

Looking northwest at the east slope of the active Class 1 Landfill.

Photo No. 5
Looking southeast at Cell 13A
(under construction).



Photo No. 6

Looking northeast at the North Sedimentation Basin.

PHOTOGRAPHIC RECORD OF CONSTRUCTION



Photo No. 5

Looking northwest at the east slope of the active Class 1 Landfill.

Photo No. 6
Looking east at the Landfill Gas to Energy Plant.



Photo No. 7

Looking east at the and Landfill Gas Flares.

PHOTOGRAPHIC RECORD OF CONSTRUCTION



Photo No. 8
Looking southwest at the RNG Facility.

Photo No. 9
Looking southwest at the container storage area, located north of the Class 4 Landfill.



Photo No. 10
Looking east at the West Basin (under construction).

PHOTOGRAPHIC RECORD OF CONSTRUCTION



Photo No. 11

Looking south at the Leachate Storage Tanks, located south of the closed Class 1 Landfill.

Photo No. 12
Looking south at the South Basin.



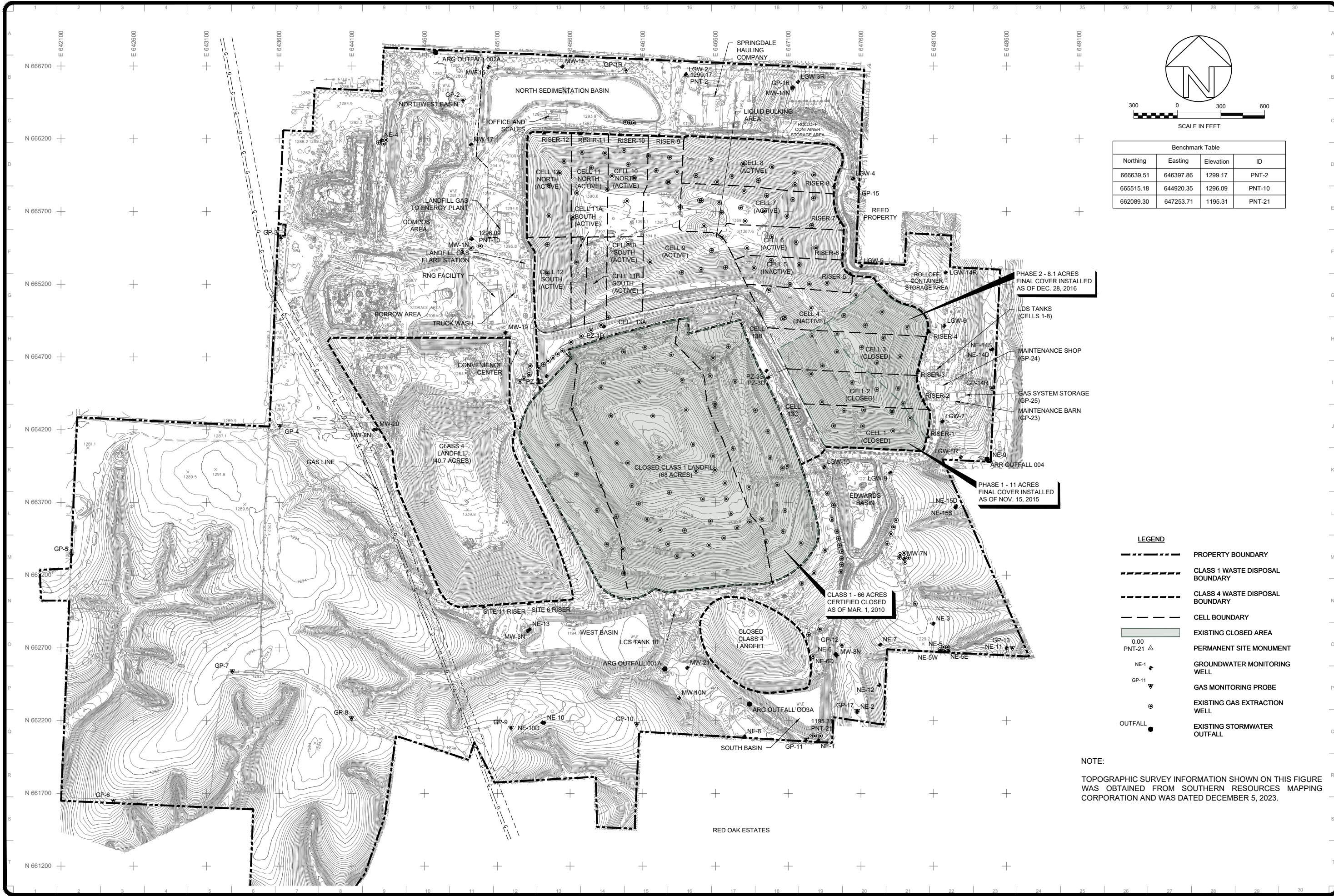
Photo No. 13

Looking east at the active working face.

Attachment B

Updated Drawings





Benchmark Table

Northing	Easting	Elevation	ID
666639.51	646397.86	1299.17	PNT-2
665515.18	644920.35	1296.09	PNT-10
662089.30	647253.71	1195.31	PNT-21

LEGEND

	PROPERTY BOUNDARY
	CLASS 1 WASTE DISPOSAL BOUNDARY
	CLASS 4 WASTE DISPOSAL BOUNDARY
	CELL BOUNDARY
	EXISTING CLOSED AREA
	PERMANENT SITE MONUMENT
	GROUNDWATER MONITORING WELL
	GAS MONITORING PROBE
	EXISTING GAS EXTRACTION WELL
	EXISTING STORMWATER OUTFALL

NOTE:
 TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS FIGURE WAS OBTAINED FROM SOUTHERN RESOURCES MAPPING CORPORATION AND WAS DATED DECEMBER 5, 2023.

REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION

PREPARED FOR:
 WASTE MANAGEMENT OF ARKANSAS, INC.

WWM

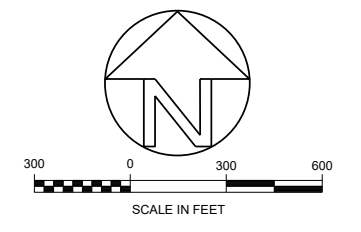
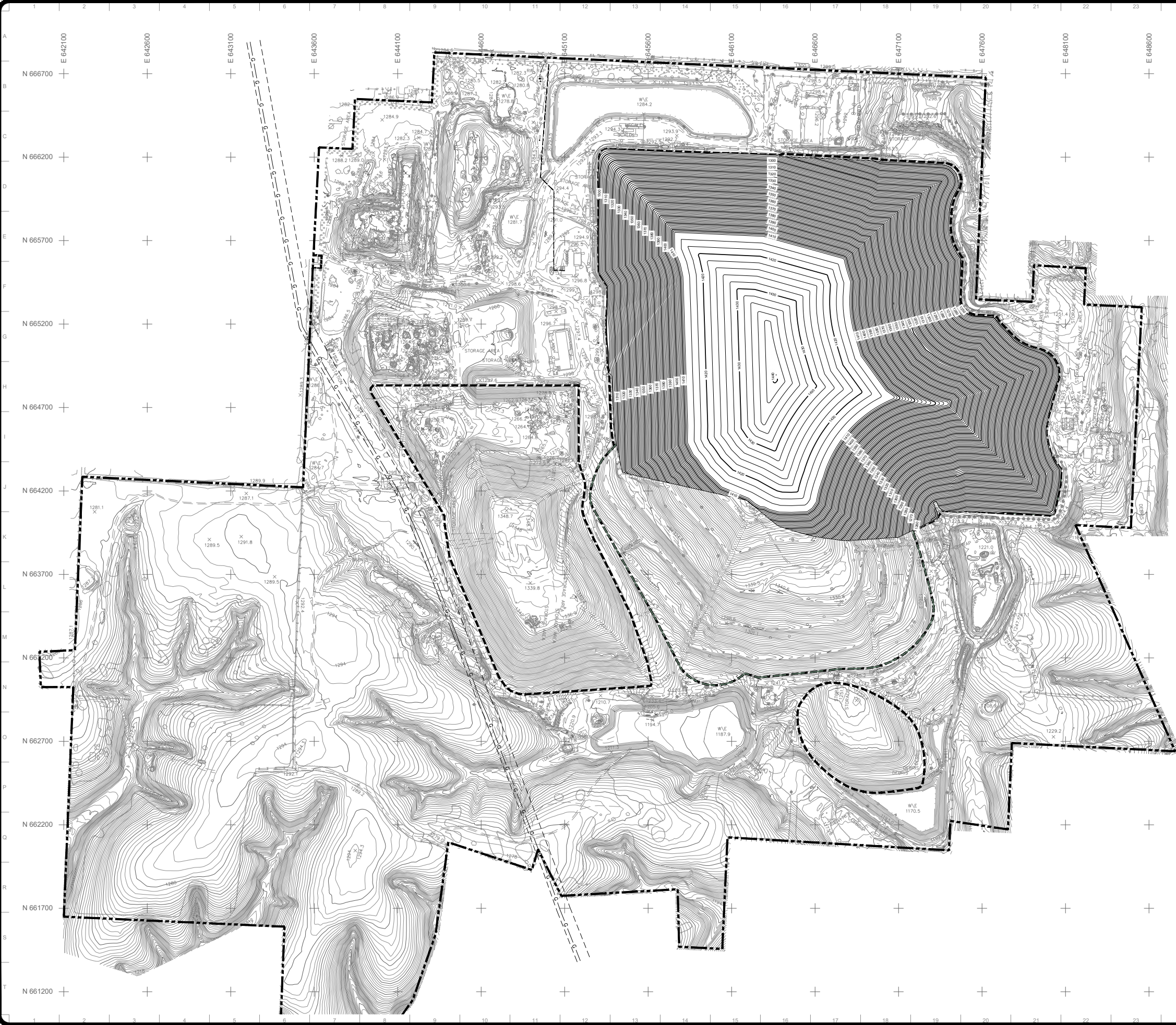
PREPARED BY:
PROMIUS ENGINEERING
 www.promusengineering.com

SITE LAYOUT MAP

2023 ANNUAL ENGINEERING
 INSPECTION REPORT
 ECO VISTA CLASS 1 LANDFILL
 TONTTOWN, ARKANSAS

PROJECT NO.: 240011
 FIGURE
1

Date: 3/28/2024 3:02 PM
 C:\MSERB\JONATHAN\PROMIUS ENGINEERING DROPBOX\PROJECTS\ACTIVE\240011-WMEV\ENGINEERING\1-AEIR\DRAWINGS\02-PERMITTED FINAL GRADES.DWG
 Last Saved By: JONATHAN



Benchmark Table			
Northing	Easting	Elevation	ID
666639.51	646397.86	1299.17	PNT-2
665515.18	644920.35	1296.09	PNT-10
662089.30	647253.71	1195.31	PNT-21

LEGEND	
	PROPERTY BOUNDARY
	CLASS 1 WASTE DISPOSAL BOUNDARY
	CLASS 4 WASTE DISPOSAL BOUNDARY

- NOTES:**
- TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS FIGURE WAS OBTAINED FROM SOUTHERN RESOURCES MAPPING CORPORATION AND WAS DATED DECEMBER 5, 2023.
 - ELEVATIONS DEPICTED ON THIS DRAWING REPRESENT TOP OF FINAL COVER GRADES, AS SHOWN ON SHEET 9 OF THE PERMIT PLANS BY FTN ASSOCIATES DATED JULY 2021.

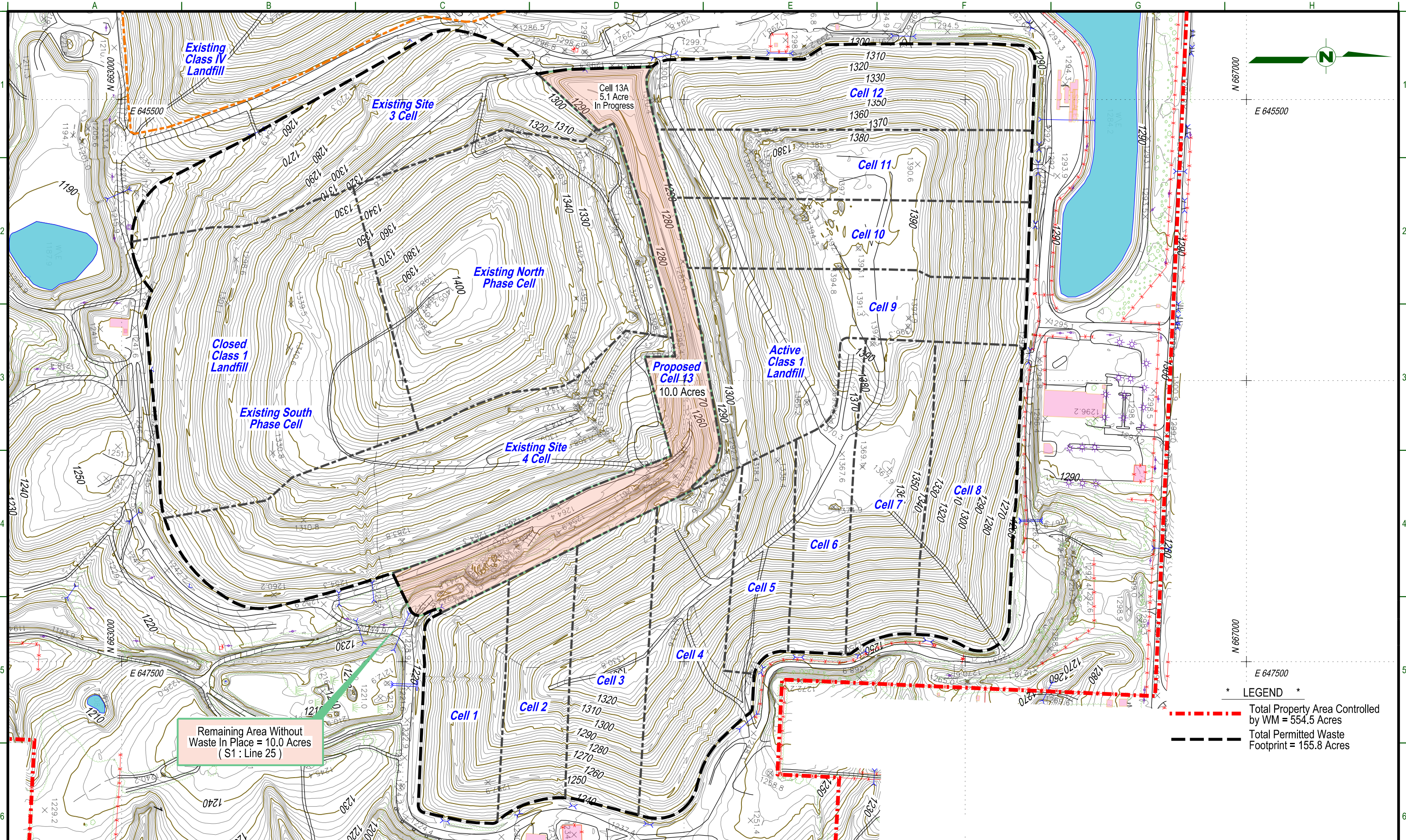
REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION

PREPARED FOR:
 WASTE MANAGEMENT OF ARKANSAS, INC.

PREPARED BY:
 PROMIUS ENGINEERING
 www.promusengineering.com

PERMITTED FINAL GRADES
 2023 ANNUAL ENGINEERING
 INSPECTION REPORT
 ECO VISTA CLASS 1 LANDFILL
 TONTTOWN, ARKANSAS

PROJECT NO.: 240011
FIGURE
2

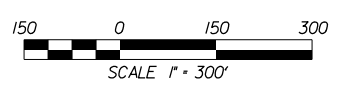


N 667000
E 645500

N 667000
E 647500

*** LEGEND ***
 - - - - - Total Property Area Controlled by WM = 554.5 Acres
 - - - - - Total Permitted Waste Footprint = 155.8 Acres

Remaining Area Without Waste In Place = 10.0 Acres (S1 : Line 25)



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Revisions			
No.	Description	Date	By

Approved By: Area Engineering Manager
 Checked By: David Conrad
 Drawn By: Bullseye Design Services, Inc.

Project Location:
Eco Vista Class 1 Landfill
Springdale, Arkansas

Current Topography
 Dated December 5, 2023

Facility ID: **AR 0018**
 Scale: 1" = 300'
 Date: January 2024
 Drawing No. **2**

Attachment C

Leachate Head Level Inspection Results



Eco Vista Landfill
Leachate Head Level Inspection

	Cell 1		Cell 2		Cell 3		Cell 4		Cell 5		Cell 6	
Level Control Data	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)
Point of Compliance	1201.8	36.0	1205.7	36.0	1211.3	48.0	1215.2	54.0	1223.3	54.0	1229.2	54.0
Bottom of Liner	1200.8	24.0	1204.7	24.0	1210.3	36.0	1214.2	42.0	1222.3	42.0	1228.2	42.0
Bottom of Sump	1198.8	0.0	1202.7	0.0	1207.3	0.0	1210.7	0.0	1218.8	0.0	1224.7	0.0
Panel Reading	--	29.6	--	1.9	--	27.8	--	3.2	--	7.4	--	3.4
Depth Above Liner	--	5.6	--	-22.1	--	-8.2	--	-38.8	--	-34.6	--	-38.6

	Cell 7		Cell 8		Cell 9		Cell 10		Cell 11		Cell 12	
Level Control Data	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)
Point of Compliance	1233.8	54.0	1237.0	54.0	1256.2	54.0	1261.0	36.0	1256.0	54.0	1255.6	54.0
Bottom of Liner	1232.8	42.0	1236.0	42.0	1255.2	42.0	1260.0	24.0	1255.0	42.0	1254.6	42.0
Bottom of Sump	1229.3	0.0	1232.5	0.0	1251.6	0.0	1258.0	0.0	1251.5	0.0	1251.1	0.0
Panel Reading **	--	2.5	--	11.9	--	-11.9	--	-11.4	--	-12.0	--	-15.3
Depth Above Liner	--	-39.5	--	-30.1	--	-53.9	--	-35.4	--	-54.0	--	-57.3

** Negative panel readings indicate vacuum from the gas collection system when leachate levels are below the transducer of the pump and sumps are in compliance.

Inspection Date: 3/21/2024
Inspector Name: Jonathan B. King, PE



Attachment D

Updated Financial Assurance



LANDFILL CLOSURE - COST ESTIMATE WORKSHEET

OWNER: Eco-Vista, LLC	PERMIT No.: 0290-S1-R4	AFIN No.: 72-00144
OPERATOR: Eco-Vista, LLC	ESTIMATOR: Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977)	DATE: March 18, 2024
TOTAL PERMITTED WASTE DISPOSAL ACRES: 145.8		
TOTAL PERMITTED ACRES CERTIFIED CLOSED: 66	ACRES CURRENTLY OPEN: 79.8 = [46 AC (LEA - 2006) + 33.8 (LEA - 2012)] (i.e., "open" means areas subject to regulation & have not been certified closed)	
LARGEST ACREAGE EVER REQUIRING FINAL COVER OVER ACTIVE LANDFILL LIFE: 79.8 (i.e., largest acreage ever open at any one time; NOTE: if approved Closure Plan does not include phased closure then largest area is the total permitted disposal acres)		

LANDFILL CLOSURE COST ESTIMATE WORKSHEET

Permit: 0290-S1-R4

AFIN: 72-00144

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
1.0.0	PROFESSIONAL SERVICES						
1.1.0	Engineering (Design, Bid Documents, Procurement, Construction Contract Management)	1	Lump Sum	\$27,500	\$ 27,500		Engineer's estimate
1.2.0	Topographic and Boundary Survey	79.8	ACRE	\$225	\$ 17,955		Engineer's estimate
1.3.0	Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	\$180,000	\$ 180,000		\$120,000 Construction Observation + \$40,000 Test & Report + \$20,000 Certification
	Professional Services Subtotal					\$ 225,455	
2.0.0	FINAL COVER						
2.1.0	Low Permeability Soil Layer						
2.1.1	Preparation of landfill to receive cover (final grading)	79.8	ACRE	\$1,500	\$ 119,700		Engineer's estimate based on prior bids
2.1.2	Geosynthetic Clay Liner	3,476,088	SQ. FT.	\$0.51	\$ 1,772,805		Engineer's estimate
2.1.3	Clay, Off-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	0	CU. YD.	\$0.00	\$ -		
	Low Permeability Soil Layer Subtotal					\$ 1,892,505	
2.2.0	Geomembrane and Drainage Layer						
2.2.1	Drainage material--sand	0	CU. YD.	\$0.00	\$ -		N/A
2.2.2	Drainage material--geocomposite	3,476,088	SQ. FT.	\$0.45	\$ 1,564,240		Engineer's estimate
2.2.3	Geomembrane (40 mil)	3,476,088	SQ. FT.	\$0.39	\$ 1,338,294		Engineer's estimate
	Geomembrane and Drainage Layer Subtotal					\$ 2,902,533	
2.3.0	Protective Soil and Vegetative Layer						
2.3.1	Protective Soil, On-site (excavate, transport, place, compact) (Quantity must match earthwork balance and must be guaranteed for future availability)	135,472	CU. YD.	\$4.05	\$ 548,662		Engineer's estimate based on prior bids
2.3.2	Protective Soil, Off-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	0	CU. YD.	\$0.00	\$ -		N/A
2.3.3	Vegetative Soil (Topsoil), On-site (excavate, transport, place) (Quantity must match earthwork balance and must be guaranteed for future availability)	67,736	CU. YD.	\$4.05	\$ 274,331		Engineer's estimate based on prior bids
2.3.4	Vegetative Soil (Topsoil), Off-site (excavate, transport, place) (Quantity must match earthwork balance)	0	CU. YD.	\$0.00	\$ -		N/A
2.3.5	Seeding and mulching	79.8	ACRE	\$2,100	\$ 167,580		Engineer's estimate based on prior bids
2.3.6	Fertilizer	79.8	ACRE	\$400	\$ 31,920		Engineer's estimate based on prior bids
	Protective Soil and Vegetative Layer Subtotal					\$ 1,022,492	
3.0.0	EROSION CONTROL						
3.1.0	Terraces and letdowns	1,925	Lin. FT.	\$90	\$ 173,250		Engineer's estimate based on prior bids (letdowns only)
3.2.0	Checkdams and filters	1	Lump Sum	\$4,000	\$ 4,000		Engineer's estimate based on prior bids
3.3.0	Grass ditching/channels	1,500	Lin. FT.	\$5.00	\$ 7,500		Engineer's estimate based on prior bids
3.4.0	Riprap ditching/channels (includes rock in mid-slope benches)	4,000	Lin. FT.	\$17	\$ 68,000		Engineer's estimate based on prior bids
	Erosion Control Subtotal					\$ 252,750	
4.0.0	GAS SYSTEM						
4.1.0	Gas vents, 35 vents, _____ average depth	0	Lin. FT.	\$0.00	\$ -		N/A
4.2.0	Passive System						
4.2.1	Passive well head flare	0	EACH	\$0.00	\$ -		N/A
4.3.0	Active System						
4.3.1	Flare, _____ BTU/hour	0	EACH	\$0.00	\$ -		N/A
4.3.2	Additional Well Installation	15	ACRE	\$5,700	\$ 85,500		Assumes 1 well/acre @ \$5,700/well (Acreage was based on Engineer's estimate)
4.3.4	Ancillary gas equipment (piping, blowers, condensate collection)	15	ACRE	\$8,000	\$ 120,000		Assumes @ \$8,000/acre (Acreage was based on Engineer's estimate)
	Gas System Subtotal					\$ 205,500	

LANDFILL CLOSURE COST ESTIMATE WORKSHEET							Permit: 0290-S1-R4	AFIN: 72-00144
ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO	
5.0.0	GROUNDWATER MONITORING SYSTEM							
5.1.0	Well installation	0	EACH	\$0.00	\$ -		N/A	
5.2.0	Upgrade existing wells	0	LS	\$0.00	\$ -		N/A	
5.3.0	Dedicated pump/sampling system installation/upgrade	0	EACH	\$0.00	\$ -		N/A	
5.4.0	Baseline sample collection (4 events per first year, _____ samples per event)	4	EVENT	\$0.00	\$ -		N/A	
5.5.0	Baseline sample analysis and reporting (4 events per first year, _____ samples per event)	4	EVENT	\$0.00	\$ -		N/A	
	Groundwater Monitoring System Subtotal					\$ -		
6.0.0	LEACHATE COLLECTION SYSTEM							
6.1.0	Additional/upgrades for collection piping	0	Lin. FT	\$0.00	\$ -		N/A	
6.2.0	Additional/upgrades to pumps	0	EACH	\$0.00	\$ -		N/A	
6.3.0	Additional/upgrades to storage containers	0	EACH	\$0.00	\$ -		N/A	
6.4.0	Baseline sample collection	0	EACH	\$0.00	\$ -		N/A	
6.5.0	Baseline sample analysis and reporting	0	EACH	\$0.00	\$ -		N/A	
	Leachate Collection System Subtotal					\$ -		
7.0.0	OPERATIONS AND INVENTORY REMOVAL							
7.1.0	Excess solid waste	0	CU. YD.	\$0.00	\$ -		N/A	
7.2.0	Mobile equipment/machinery (e.g., containers, tanks, etc...)	1	Lump Sum	\$11,500	\$ 11,500		Engineer's Estimate	
7.3.0	Stored leachate	54,500	GAL.	\$0.01166	\$ 635.47		NW Arkansas Conservation Authority Wastewater Treatment Facility: Current Disposal Contract Rate	
7.4.0	Contaminated soils	0	CU. YD.	\$0.00	\$ -		N/A	
	Operations and Inventory Removal Subtotal					\$ 12,135		
8.0.0	DEMOLITION/REMOVAL SITE IMPROVEMENTS							
8.1.0	Office/shop/maintenance and other ancillary buildings	1	Lump Sum	\$8,500	\$ 8,500		Engineer's Estimate	
8.2.0	Equipment to be decommissioned (e.g., weigh scales, bulking/solidification pits, collection pits/sumps, piping, etc...)	1	Lump Sum	\$5,700	\$ 5,700		Engineer's Estimate	
8.3.0	Site Utilities	1	Lump Sum	\$17,000	\$ 17,000		Engineer's Estimate (Cost for disconnecting not demolishing)	
	Demolition/Removal Site Improvements Subtotal					\$ 31,200		
9.0.0	REPLACE/REBUILD SITE ACCESS CONTROLS							
9.1.0	Fencing	100	Lin. FT.	\$20.00	\$ 2,000		Engineer's Estimate	
9.2.0	Gates	1	Lump Sum	\$9,000	\$ 9,000		Engineer's Estimate	
9.3.0	Access barriers	1	Lump Sum	\$2,800	\$ 2,800		Engineer's Estimate	
9.4.0	Other security equipment	1	Lump Sum	\$2,800	\$ 2,800		Engineer's Estimate	
	Replace/Rebuild Site Access Controls Subtotal					\$ 16,600		
10.0.0	BORROW AREA RECLAMATION							
10.1.0	Regrade and site prep	42	ACRE	\$1,850	\$ 77,700		Engineer's estimate based on prior bids	
10.2.0	Soil, On-site (excavate, transport, place, compact)	0	CU.YD.	\$0.00	\$ -		N/A	
10.3.0	Soil, Off-site (excavate, transport, place, compact)	0	CU. YD.	\$0.00	\$ -		N/A	
10.4.0	Seeding and mulching	42	ACRE	\$1,150	\$ 48,300		Engineer's estimate based on prior bids	
10.5.0	Fertilizer	42	ACRE	\$360	\$ 15,120		Engineer's estimate based on prior bids	
	Borrow Area Reclamation Subtotal					\$ 141,120		
	Total Closure Cost Subtotal					\$ 6,702,291		
11.0.0	MISCELLANEOUS							
11.1.0	Administration and Contingency			\$268,091.65	\$268,091.65		Approximately 4% of Total Closure Cost	
11.1.1	Compost Closure Cost			\$58,658	\$ 58,658		See Attached Worksheet	
	Misc. Subtotal					\$ 326,750		
	TOTAL CLOSURE COST					\$ 7,029,041		
12.0.0	ANNUAL INFLATION FACTOR ADJUSTMENTS							
12.1.0	July 2023 Permit Issued - FA Cost			Year	Inflation	Adjusted Total		
				--	--	\$ 7,842,363	See pg. 1 of 20, Permit 0290-S1-R4 issued 7/31/23	
12.1.1	2023 Inflation Adjustment			2023	1.065	\$ 8,352,117	http://www.adeq.state.ar.us/sw/permits/financial.aspx	

LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET

OWNER: Eco-Vista, LLC	PERMIT NO.: 0290-S1-R4	AFIN: 72-00144
OPERATOR: Eco-Vista, LLC	ESTIMATOR: Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977)	DATE: March 18, 2024
TOTAL PERMITTED WASTE DISPOSAL ACRES: 145.8		
TOTAL PERMITTED ACRES CERTIFIED CLOSED: 66		

LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET Permit: 0290-S1-R4 AFIN: 72-00144

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
1.0.0	PROFESSIONAL SERVICES						
1.1.0	Engineering (Annual inspection and reporting, corrective action design and bid, contract management)	1	Lump Sum	\$2,750	\$ 2,750		Engineer's Estimate
1.2.0	Topographic and Boundary Survey (annual, final, and corrective action, if required)	1	Lump Sum	\$2,750	\$ 2,750		Engineer's Estimate
1.3.0	Corrective Action Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	\$32,000	\$ 32,000		Engineer's Estimate
	Professional Services Annual Subtotal					\$ 37,500	
2.0.0	FINAL COVER ROUTINE MAINTENANCE						
2.1.0	Inspect soil cover, vents, flares, drainage letdowns and outfalls, etc...	2	EVENT	\$2,800	\$ 5,600		Engineer's Estimate
2.2.0	Mowing/Trimming (145.8 acres twice per year)	311.6	ACRE	\$60.00	\$ 18,696		Engineer's Estimate
2.3.0	Clean Drain/Vent Openings	2	EVENT	\$2,350	\$ 4,700		Engineer's Estimate
	Final Cover Routine Maintenance Annual Subtotal					\$ 28,996	
3.0.0	FINAL COVER REPAIRS						
3.1.0	Remove/incorporate unacceptable materials (e.g., dead vegetation, solid waste)	10	ACRE	\$55	\$ 550		Engineer's estimate based on prior bids
3.2.0	Scarify and prepare surface	10	ACRE	\$1,500	\$ 15,000		Engineer's estimate based on prior bids
3.3.0	Soil, On-Site (excavate, transport, place, compact)	3,500	CU. YD.	\$4.65	\$ 16,275		Engineer's estimate based on prior bids
3.4.0	Soil, Off-site (excavate, transport, place, compact)		CU. YD.	\$0.00	\$ -		N/A
3.5.0	Seeding and mulching	10	ACRE	\$2,100	\$ 21,000		Engineer's estimate based on prior bids
3.6.0	Fertilizer	10	ACRE	\$400	\$ 4,000		Engineer's estimate based on prior bids
	Final Cover Repairs Annual Subtotal					\$ 56,825	
4.0.0	ACCESS ROADS REPAIRS						
4.1.0	Reshape/regrade subgrade	3,000	SQ. FT.	\$2.30	\$ 6,900		Engineer's estimate based on prior bids
4.2.0	Gravel (transport, place, compact)	200	TON	\$34.00	\$ 6,800		Engineer's estimate based on prior bids
4.3.0	Drainage Structures (e.g., culverts,	1	LS	\$6,800	\$ 6,800		Engineer's estimate based on prior bids
4.4.0	Riprap ditching/channels	1	LS	\$4,000	\$ 4,000		Engineer's estimate based on prior bids
	Access Roads Repair Annual Subtotal					\$ 24,500	
5.0.0	SURFACE WATER MANAGEMENT OPERATION AND MAINTENANCE (O&M)						
5.1.0	Collection system operation and maintenance (ditches, piping conveyances, outfalls, sampling points repair/replace)	1	Lump Sum	\$2,300	\$ 2,300		Engineer's Estimate
5.2.0	Stormwater storage (sediment pond) operation/repairs	1	Lump Sum	\$1,400	\$ 1,400		Engineer's Estimate
5.3.0	Sample collection (2 events per year)	2	EVENT	\$1,000	\$ 2,000		Engineer's Estimate
5.4.0	Sample analysis and reporting (2 events per year)	2	EVENT	\$2,000	\$ 4,000		Engineer's Estimate
	Surface Water Management O&M Annual Subtotal					\$ 9,700	
6.0.0	LEACHATE COLLECTION SYSTEM O&M						
	Generation Rate = 405,000 gal/yr.						
6.1.0	Collection operation/maintenance (pump, piping, storage...operation/repair/replace)	1	YEAR	\$2,300	\$ 2,300		Engineer's Estimate
6.2.0	Leachate loading, off-loading and off-site transportation		EVENT	\$0.00	\$ -		Forcemain in place to transport to NW Arkansas Conservation Authority (NACA) Wastewater Treatment Facility
6.3.0	Leachate Treatment/Disposal	405,000	Gal.	\$0.01166	\$ 4,722.30		NACA WWTP Agreement
6.4.0	Additional/upgrades for piping, pumps and storage	1	Lump Sum	\$11,500	\$ 11,500		Engineer's Estimate
6.5.0	Leachate sample collection	1	YEAR	\$1,000	\$ 1,000		Engineer's Estimate
6.6.0	Leachate sample analysis and reporting	1	YEAR	\$2,000	\$ 2,000		Engineer's Estimate
	Leachate Collection System O&M Annual Subtotal					\$ 21,522	

LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET							Permit: 0290-S1-R4 AFIN: 72-00144		
ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO		
7.0.0	GROUNDWATER MONITORING SYSTEM O&M								
	Number of Wells in Approved System = 34								
7.1.0	Well maintenance (e.g., protective casing (lock & hinges) repair/replacement, well pad repair/replace, etc...)	1	LS	\$1,350	\$ 1,350		Engineer's Estimate		
7.2.0	Upgrade/redevelop existing wells	1	LS	\$1,100	\$ 1,100		Engineer's Estimate		
7.3.0	Well Replacement	1	LS	\$1,100	\$ 1,100		Engineer's Estimate		
7.4.0	Sample collection (2 events per year)	2	EVENT	\$7,500	\$ 15,000		Engineer's Estimate		
7.5.0	Sample analysis and reporting (2 events per year)	2	EVENT	\$18,000	\$ 36,000		Engineer's Estimate		
	Groundwater Monitoring System O&M Annual Subtotal					\$ 54,550			
8.0.0	GAS MONITORING SYSTEM O&M								
8.1.0	Number of Gas Monitoring Probes/Wells = 16								
8.2.0	Methane monitoring of probes/wells (4 per year)	4	EVENT	\$2,300	\$ 9,200		Engineer's Estimate		
8.3.0	Methane monitoring at site boundary and structures (4 per year)	4	EVENT	\$1,700	\$ 6,800		Engineer's Estimate		
8.4.0	Sample analysis and reporting	4	EVENT	\$1,000	\$ 4,000		Engineer's Estimate		
	Gas Monitoring System O&M Annual Subtotal					\$ 20,000			
9.0.0	GAS EXTRACTION SYSTEM O&M								
9.1.0	Passive System								
9.1.1	Passive well head flare maintenance	1	EACH	\$2,800	\$ 2,800		Engineer's Estimate		
9.2.0	Active System								
9.2.1	Flare, BTU/hour	1	EACH	\$15,300	\$ 15,300		Engineer's Estimate		
9.2.2	Additional Well Installation/Upgrades	1	EACH	\$1,000	\$ 1,000		Engineer's Estimate		
9.2.3	Ancillary gas equipment repair/replacement (piping, blowers, condensate collection)	1	Lump Sum	\$1,400	\$ 1,400		Engineer's Estimate		
	Gas Extraction System O&M Annual Subtotal					\$ 20,500			
10.0.0	CORRECTIVE ACTION EVALUATION AND IMPLEMENTATION								
10.1.0	Resurvey monitoring well reference points and site benchmarks (prorate for annual expenses)	1	EACH	\$2,500	\$ 2,500		Engineer's Estimate		
10.2.0	Remove sediments from stormwater basin(s) (prorate for annual expenses)	1	EACH	\$4,000	\$ 4,000		Engineer's Estimate		
10.3.0	Groundwater exceedances statistical evaluation	1	EACH	\$2,300	\$ 2,300		Engineer's Estimate		
10.4.0	Groundwater alternate source determination (prorate for annual expenses)	1	EACH	\$5,700	\$ 5,700		Engineer's Estimate		
10.5.0	Groundwater compliance monitoring (prorate for annual expense)	34	EACH	\$2,750	\$ 93,500		Engineer's Estimate		
10.6.0	Other: _____		EACH		\$ -				
	Corrective Action Evaluation and Implementation Annual Subtotal					\$ 108,000			
	Total Post-Closure Care Annual Cost Subtotal					\$ 382,093			
11.0.0	MISCELLANEOUS								
11.1.0	Administration and Contingency				\$ 15,284				
	Misc. Subtotal					\$ 15,284			
	TOTAL ESTIMATED ANNUAL POST-CLOSURE CARE COST						\$ 397,377		
	ESTIMATED 30 YEAR POST-CLOSURE CARE PERIOD	30 x "Total Estimated Annual Post-Closure Care Cost".				\$ 11,921,311			
	CERTIFICATE OF INSURANCE (COI) - ADJUSTED TOTAL	20% of Total Post-Closure Care Cost				\$ 2,384,262			
12.0.0	ANNUAL INFLATION FACTOR ADJUSTMENTS								
12.1.0	2023 Inflation Adjustment	2023	1.065		\$12,696,196	\$ 2,539,239	http://www.adeq.state.ar.us/sw/permits/financial.aspx		

Eco-Vista Compost Facility - Closure Cost

Estimated Closure Cost maximum material on site	\$39,105
Total Financial Assurance Cost Required	\$58,658

150% of maximum material stored on site
[22.810[(c)(2)]

Item	Quantity	Unit	Unit Price	Amount
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Closure Cost Estimate

1 Remove and haul existing finished compost	2,600	CY	2.85	\$7,410
2 Remove and haul non-compostable residuals	100	CY	2.85	\$285
3 Process operations (i.e mixing, watering etc.)	12	DAY	1,150	\$13,800
4 Remove and haul processed finished compost	2,600	CY	2.85	\$7,410
5 Mobilization costs	1	LS	3,400	\$3,400
6 Clean up Cost	2	DAY	3,400	\$6,800

Total Estimated Closure Costs:	\$39,105
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Notes:

1. Cost in 2020 dollars
2. Assumes 3rd Party Contractor performing work.
3. Maximum Existing finished compost based one year storage (650 CY/MONTH of yard waste at 12 months = 7,800 CY reduced by 2/3 for finished compost = 2,600 CY)
3. Total maximum for un-composted material and material being composted is based on one year at 7,800 CY/YEAR which is reduced by 2/3 after completed compost process.