

## Kacy Murillo (adpce.ad)

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**Subject:** RE: Eco-Vista Class 4 Landfill - 2022 AEIR (Permit 0290-S4-R1; AFIN: 72-00144)

**AFIN:** 72-00144

**PMT#:** 0290-S4-R2

**Received**

*By Kacy Murillo at 8:45 am, Apr 5, 2023*

**DOC ID#:** 83780

**TO:** AC>FILE <KM

**From:** Jonathan King [<mailto:jking@promusengineering.com>]

**Sent:** Friday, March 31, 2023 7:29 PM

**To:** Annette Cusher (adpce.ad) <[Annette.Cusher@adeq.state.ar.us](mailto:Annette.Cusher@adeq.state.ar.us)>; Bobby Gentry (adpce.ad) <[Bobby.Gentry@adeq.state.ar.us](mailto:Bobby.Gentry@adeq.state.ar.us)>

**Cc:** Conrad, David <[DConrad@wm.com](mailto:DConrad@wm.com)>; Small, Blake <[bsmall@wm.com](mailto:bsmall@wm.com)>; Reynolds, Jodi <[jreyno10@wm.com](mailto:jreyno10@wm.com)>; Simmons, Carl <[csimmons@wm.com](mailto:csimmons@wm.com)>; Brad Fureigh <[bfureigh@promusengineering.com](mailto:bfureigh@promusengineering.com)>

**Subject:** Eco-Vista Class 4 Landfill - 2022 AEIR (Permit 0290-S4-R1; AFIN: 72-00144)

Ms. Cusher,

Please see attached the 2022 Annual Engineering Inspection Report for the Eco-Vista Class 4 Landfill. Please let me know if you have any questions or comments.

Thanks!

**Jonathan B. King, P.E.**

**Project Engineer | Promus Engineering, LLC**

M: (501) 398-7785

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[www.promusengineering.com](http://www.promusengineering.com)

# 2022 ANNUAL ENGINEERING INSPECTION REPORT

## WM Eco-Vista Class 4 Landfill Springdale, Arkansas

Permit No. 0290-S4-R2  
AFIN: 72-00144

March 31, 2023  
Promus Project No. 220044

Prepared for:  
**Eco-Vista, LLC.**



Prepared by:



**ANNUAL ENGINEERING INSPECTION REPORT (AEIR) FORM      Reporting Year: 2022**  
**Note: Check applicable landfill class.    Class 1 (Reg 22.423(b))   ,    Class 3 (22.522(a))   ,    Class 4 (22.619(b))    X**

Facility Name: Waste Management Eco-Vista Class 4 Landfill    AFIN: 72-00144    Permit #: 0290-S4-R1    Landfill Class: 4

Report Submittal Date: March 31, 2022    Date of Landfill Site Inspection by Certifying Engineer: March 22, 2023

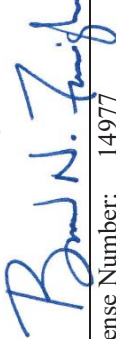
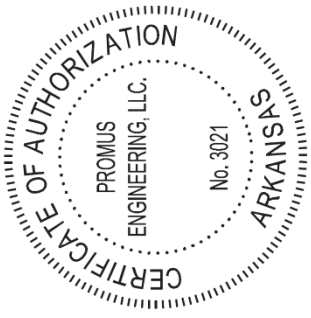

<b>Complete the form as indicated Instructions are bolded and italicized.</b>		<b>COLUMN TO BE COMPLETED BY REPORTER</b>	
<b>Item</b>	<b>Regulation Reference</b>	<b>Item Description</b>	<b>Report Information/Comments/Remarks</b>
1	22.423(b)(1) 22.522(a)(1) 22.619(b)(1)	Remaining volume in current cell.  Projected date of opening new cell.	a) <u>69,270</u> cubic yards  b) Date: <u>N/A</u>
2	22.423(b)(2) 22.522(a)(2) 22.619(b)(2)	Remaining volume of all permitted units.  Total air space used during the reporting period.	a) <u>69,270</u> cubic yards  b) <u>237,030</u> cubic yards
3	22.423(b)(3) 22.522(a)(3) 22.619(b)(3)	Estimated remaining site life (years) based on utilization rate during the reporting period. <b>Note: <i>Itemize current permitted unit/cell information - use attachment if necessary.</i></b>  Documentation of fill progression in compliance with permit plans, specs and operating plan and narrative. <b>Note: <i>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></b>	c) Landfill Unit/Cell remaining life: Landfill unit/cell <u>Phase 1-7</u> , <u>0.12</u> years. Landfill unit/cell _____, _____ years. Landfill unit/cell _____, _____ years. d) Entire permitted landfill: <u>0.12</u> years remaining life.  a) Progression narrative: Currently, a 28.5-acre footprint area is prepared for the disposal of waste, which includes Phase 1 through Phase 7. Based on the review of the December 15, 2022 topographic survey, the fill progression is in accordance with the approved Permit plans.

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. <b>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.</b>	<p>a) Weekly/monthly operational logs exist (Y/N)? <u>Y</u></p> <p>b) Photos of AEIR inspection attached (Y/N)? <u>Y</u></p> <p>c) Waste volume in and out records exist (Y/N)? <u>Y</u></p> <p>d) Unauthorized waste forms exist (Y/N)? <u>Y</u></p> <p>e) Daily/weekly cover adequate at time of inspection (Y/N)? <u>Y</u></p> <p>f) Alternative Daily Cover (ADC) Plan located onsite (Y/N)? <u>N/A</u></p> <p>Operations in compliance with ADC Plan (Y/N)? <u>N/A</u></p> <p>g) Liquid Waste Management (LWM) Plan located onsite (Y/N)? <u>N/A</u></p> <p>Operations in compliance with LWM Plan (Y/N)? <u>N/A</u></p> <p>h) Liquids received to be bulked during reporting period: <u>N/A</u> gallons _____ tons</p> <p>i) Waste cover of inactive areas maintained adequately (Y/N)? <u>Y</u></p> <p>j) Net amount of waste disposed in landfill during reporting period: _____ cubic yards <u>131,693</u> tons</p> <p>k) Leachate head level less than 1' on liner at time of inspection (Y/N)? <u>Y</u></p>	<b>A</b>
5	22.423(b)(5) 22.522(a)(5) 22.619(b)(5)	<p>Updated contour map that depicts: <b>Note: Provide updated drawing(s) and final cover permit drawing as Attachment B – discuss any discrepancies. Max. contour interval = 2 feet</b></p> <p>(i) horizontal and vertical extent of active and inactive fill areas;</p> <p>(ii) status of all permitted units/cells; <b>(Note: Label all active (working face, bulking area, stockpiles), inactive, closed and interim cover areas).</b></p> <p>(iii) survey grid (required by 22.426); <b>Note: Include benchmarks and horizontal controls</b></p> <p>(iv) location of other visible surface features or improvements (e.g., roads, buildings, gas control systems, etc.); <b>Note: Include leachate risers, manholes, monitoring wells, gas wells, etc.</b></p> <p>(v) the person responsible for gathering the survey data and the date survey data was taken to prepare the map. <b>Reminder: Reporting period is calendar year. Survey data should be collected to reflect the AEIR reporting period.</b></p>	<p>a) Updated contour drawing attached (Y/N)? <u>Y</u></p> <p>b) Final cover permit drawing attached (Y/N)? <u>Y</u></p> <p>c) <b>List all discrepancies here:</b> <u>N/A</u></p> <p>d) Is there an overfill condition (Y/N)? <u>N</u></p> <p>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></p> <p>b) If not, where will deficiency shortfalls be obtained (be specific)? _____</p> <p>c) Is the current Design Narrative earthwork balance accurate (Y/N)? <u>Y</u></p> <p>a) Name: _____ Southern Resources Mapping _____</p> <p>b) Name of person using the data to produce contour map: _____ John Matthews, P.E.</p> <p>c) Date survey data was collected: _____ December 15, 2022 _____</p>	<b>B</b>



6	22.423(b)(6) 22.522(a)(6) 22.619(b)(6)	Quantity, location, and characteristics of leachate collected, recirculated, and disposed. <b>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.</b>	<p>a) Leachate Collected: <u>3,016,051</u> gallons  b) Leachate Disposed: <u>3,016,051</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: 82143, 83049)  g) Leachate narrative (collection, measurements and disposal): <u>Leachate is collected and pumped from cell sumps via a dual contained foremain and conveyed to either above ground storage tanks for temporary storage or direct transmission. Leachate is pumped from the tanks to the NACA Wastewater Treatment Plant via foremain.</u>  h) Leachate narrative (verifying &lt;1' head on liner system): <u>The two sumps 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></p>	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. <b>Note: List any upset conditions during the reporting period (i.e., washouts, etc...). Also, include narrative about vegetation maintenance and repair.</b>	<p>a) <b>Briefly list maintenance activities and upset conditions here:</b>  Prior to any offsite discharges, storm water is diverted to on-site sedimentation basins via drainage berms and perimeter ditches. During the reporting period, typical silt removal maintenance was performed in ditches and stormwater basins.</p>	
8	22.423(b)(8) 22.619(b)(8)	Status of capping and closure of completed areas. <b>Note: List areas with acreage that have received interim or final cover. Include total landfilled area acreage not yet under final certified closed cover.</b> <b>Note: "Certified closed" means the facility has received an approval letter from ADEQ accepting the engineer's closure certification report.</b>	<p>a) Lndfl unit/cell <u>Phase 1-6</u> , <u>23.3</u> acres. Intrm or Final Cover (I/F): <u>I</u>  b) Lndfl unit/cell <u>Phase 7</u> , <u>5.2</u> acres. Intrm or Final Cover (I/F): <u>I</u>  c) Acres of disposed waste not under final certified cover: <u>28.5</u> acres  f) Acres of disposed waste area that have interim cover: <u>28.5</u> acres</p>	
9	22.423(b)(9) 22.522(a)(8) 22.619(b)(9)	Status of remedial or corrective action activities. <b>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.</b> <b>Note: If trust fund financial assurance mechanism is utilized, the trust fund must fully fund all acres permitted.</b>	<p>a) <b>Briefly list corrective actions events here:</b>  During the reporting period, there were no DEQ quarterly inspection comments. No corrective actions required during the reporting period.  b) Were any of the corrective actions taken in response to an ADEQ inspection (Y/N)? <u>N/A</u>  c) Current status of corrective actions: <u>N/A</u>  d) Did corrective actions permanently solve the conditions (Y/N)? <u>N/A</u>  <b>Explain briefly:</b> _____</p>	

10	22.423(b)(10) 22.522(a)(9) 22.619(b)(10)	<p>Updated Financial Assurance documentation as required by Chapter 14. <b>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 <a href="#">ADEQ – Solid Waste – Technical Branch Home Page</a></b> <b>Specific links to the worksheets:</b> <a href="http://www.adeq.state.ar.us/solwaste/branch_technical/pdfs/closure_costs_worksheet.xlsx">http://www.adeq.state.ar.us/solwaste/branch_technical/pdfs/closure_costs_worksheet.xlsx</a> and <a href="http://www.adeq.state.ar.us/solwaste/branch_technical/pdfs/post_closure_care_costs_worksheet.xlsx">http://www.adeq.state.ar.us/solwaste/branch_technical/pdfs/post_closure_care_costs_worksheet.xlsx</a>. . <b>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.</b></p>	<p>a) Size of facility property under current permit? <u>609.2</u> acres b) Size of actual permitted disposal area? <u>28.5</u> acres c) What is the current total permitted disposal area that contains disposed waste but is not certified closed? <u>28.5</u> acres d) Updated closure cost estimate amount: \$ <u>1,155,359*</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>150,384*</u> (with 80% Reduction: \$30,077) 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> * <i>Permit 0290-S4-R2 was issued on 3/17/2023. The financial assurance cost estimates from the Permit Application were used for the basis of the cost estimate and adjusted for inflation.</i></p>	<b>D</b>
11	22.423(b)(11) 22.522(a)(10) 22.619(b)(11)	<p>Revised or updated facility Closure Plan in accordance with Chapter 13. <b>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.</b></p>	<p>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></p>	
12	22.423(b)(12) 22.522(a)(11) 22.619(b)(12)	<p>Other items that affect compliance. <b>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...</b></p>	<p>a) Are there current ADEQ enforcement actions (Y/N)? <u>N</u> b) Summary of enforcement actions: <u>N/A</u> c) Are operating and permit fees payments up-to-date (Y/N)? <u>Y</u> If not explain: _____ Additional Information: d) Does the facility monitor groundwater (Y/N)? <u>Y</u> If so, is it detection monitoring or assessment monitoring?: <u>Assessment Monitoring</u> e) What is the groundwater analytical sampling frequency? <u>3</u> months f) Does the facility collect landfill gas (Y/N)? <u>N</u> g) Does the facility have a Gas Monitoring Plan (Y/N)? <u>Y</u> h) Does the facility have gas monitoring probes (Y/N)? <u>Y</u> i) Does the facility use an alternate daily cover (ADC)(Y/N)? <u>N/A</u> If so, what type of ADC is used: <u>N/A</u> If so, list document id# approving ADC: <u>N/A</u></p>	

13		<p>j) Does the facility have a Liquid Waste Management (LWM) Plan (Y/N)? <u>N</u>          If so, list document id# approving the LWM Plan: <u>N/A</u></p> <p>k) Date and document id # of currently approved Operating Plan and Narrative: Date: <u>August 2008</u> Doc#: <u>53478</u></p> <p>l) Date and document id # for currently approved Closure/ Post Closure Plan: Date: <u>January 2007</u> Doc#: <u>42907</u></p> <p>m) Date and document id # of currently approved Permit Drawings: Date: <u>January 2007</u> Doc#: <u>42907</u></p> <p>n) Date and document id # of currently approved Design Narrative: Date: <u>January 2007</u> Doc#: <u>42907</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>N</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>2,974,000</u> cubic yards</p>	
22.423(b) 22.522(a) 22.619(b)	<p>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>	<p>a) Arkansas Licensed Engineer:            Sign: _____ Date: <u>3/31/2023</u>          b) License Number: <u>14977</u>          c) <i>Attach seal here:</i></p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	

# **Attachment A**

## **Photographic Log**







**Photo No. 1**

Looking north at active working face and headwall for leachate Riser 11.



**Photo No. 2**

Looking at the southwest side of active Class 4 landfill.



**Photo No. 3**

West slope of Class 4 landfill.





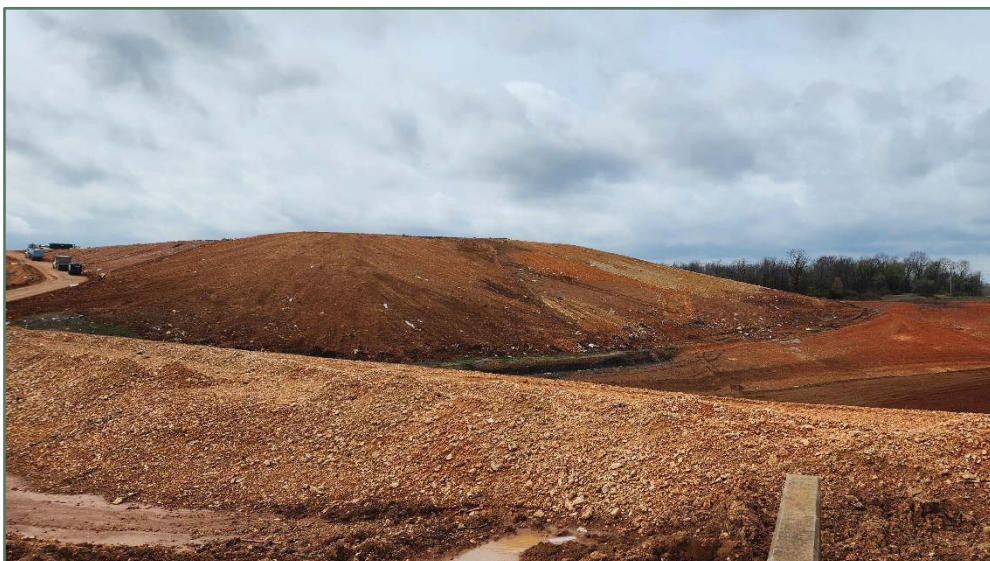
**Photo No. 4**

Looking at the northwest slope of the active Class 4 landfill.



**Photo No. 5**

Looking at the east side of the active Class 4 landfill.



**Photo No. 6**

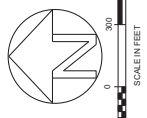
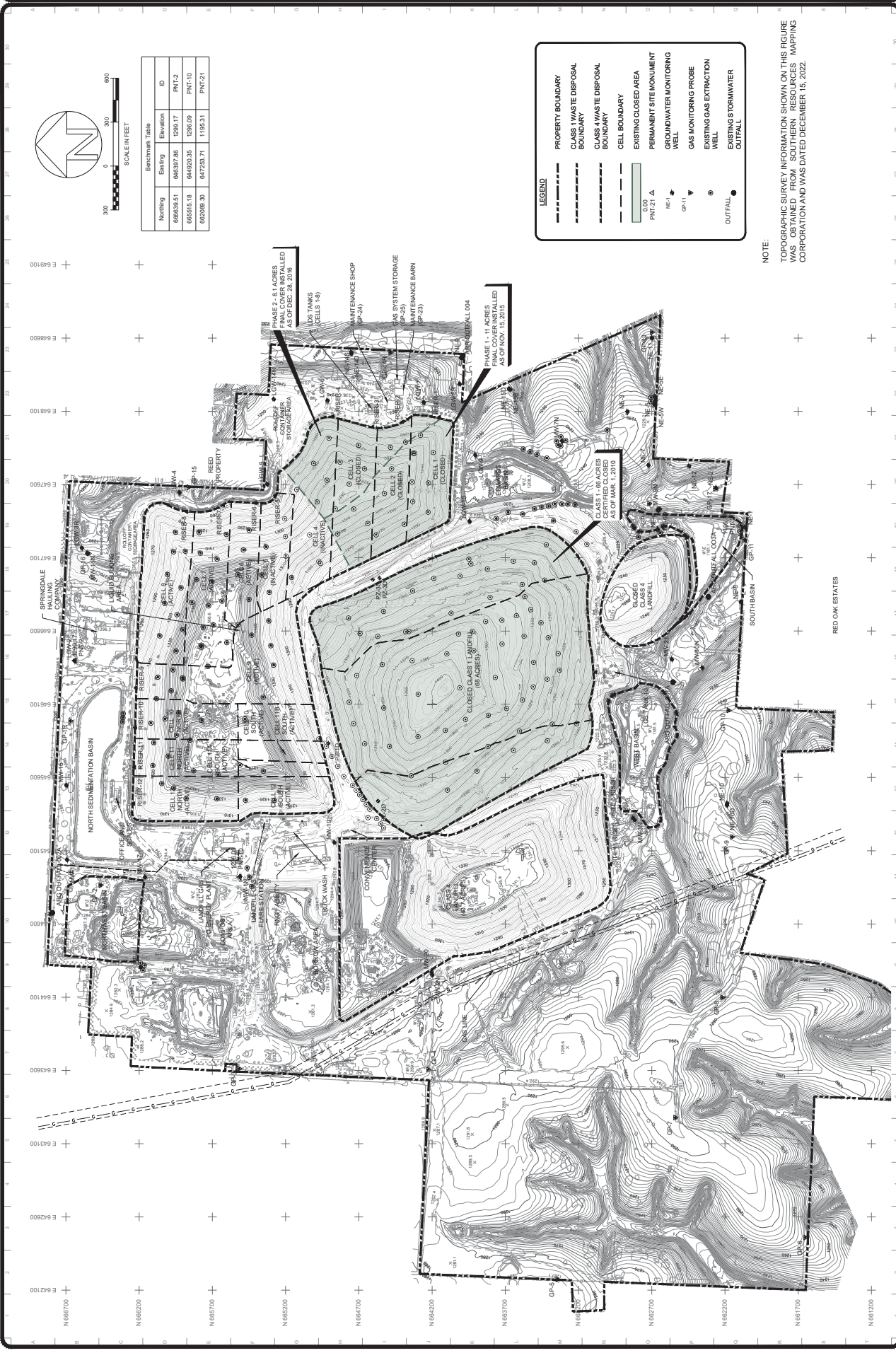
Looking at the north slope of the active Class 4 landfill.

# **Attachment B**

## **Updated Drawings**







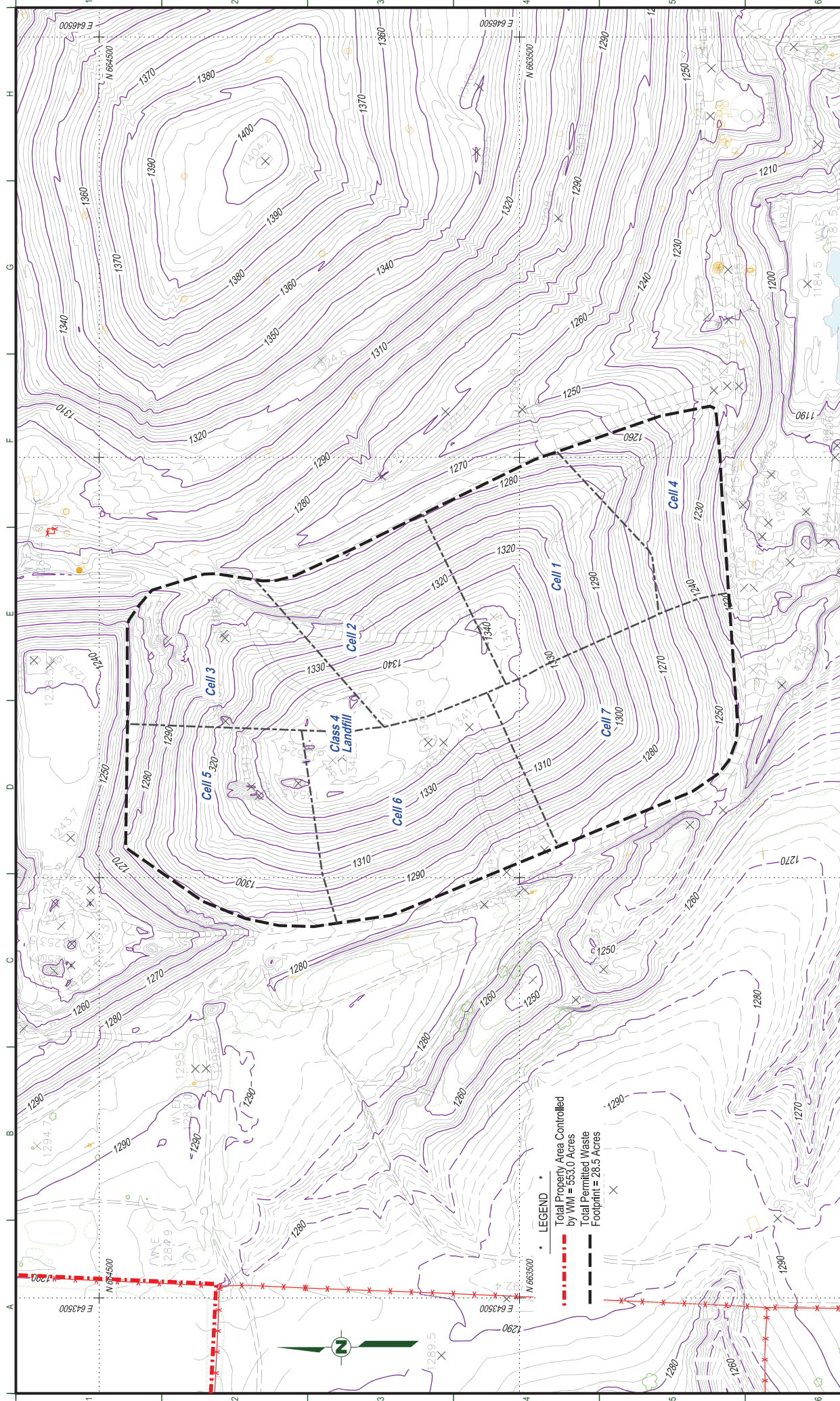
Benchmark Table	
Noting	Elevation
66639.51	1298.17
66551.18	1298.09
66209.30	1195.31
	PNT-21
	PNT-10
	PNT-2

**LEGEND**

- PROPERTY BOUNDARY
- CLASS 1 WASTE DISPOSAL BOUNDARY
- CLASS 4 WASTE DISPOSAL BOUNDARY
- CELL BOUNDARY
- EXISTING CLOSED AREA
- PERMANENT SITE MONUMENT BOUNDARY
- GWS
- △ PNT-21
- MW-1
- GM-11
- 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 15, 2022.





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Revisions		Approved By: Alex Engineering Manager		Project Location:	
No.	Description	Date	By	Eco Vista Class 4 Landfill Springdale, Arkansas	

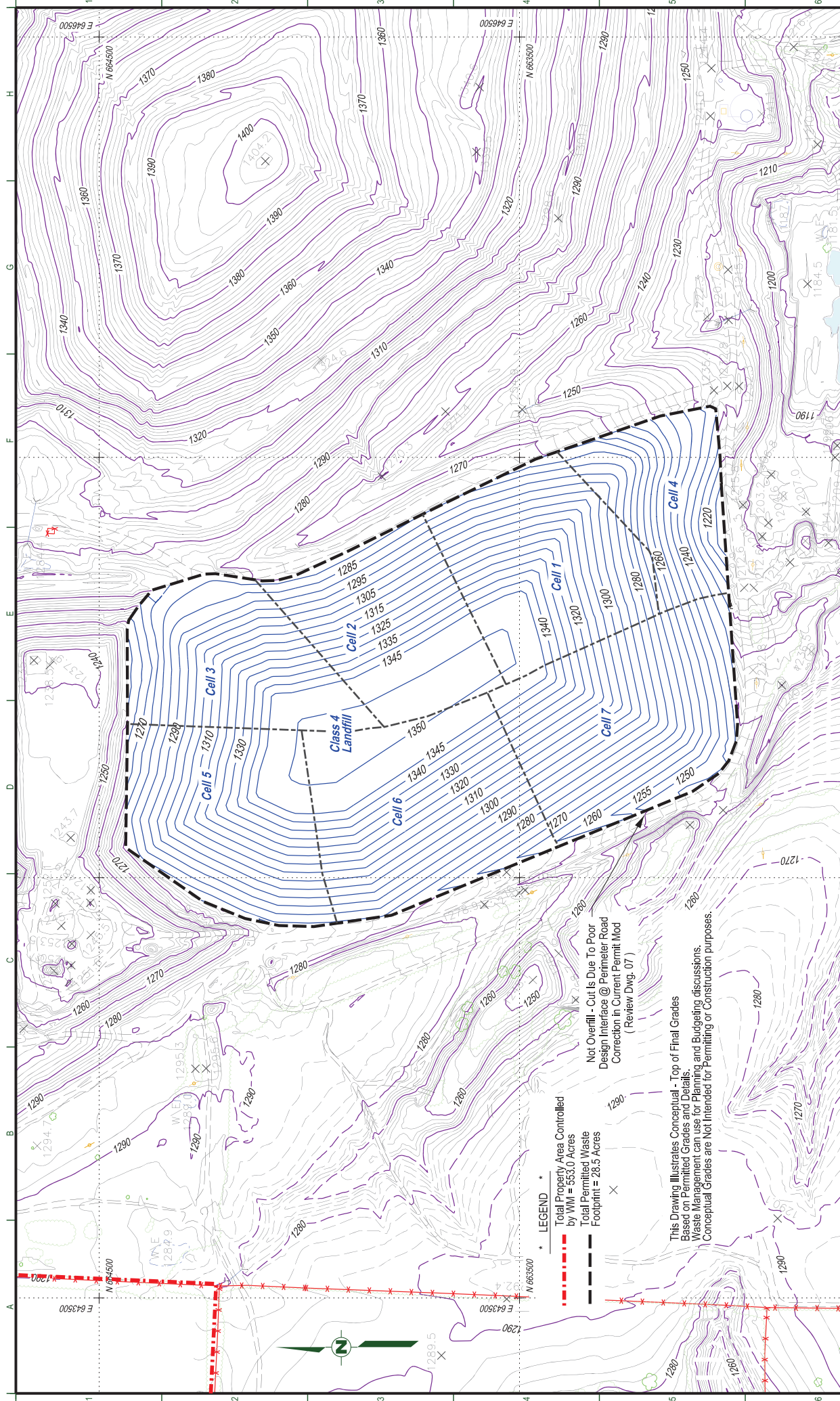
Checked By: David Conrad  
 Drawn By: Bullseye Design Services, Inc.

Facility ID: AR 0018  
 Drawing No: 2  
 Scale: 1" = 200'  
 Date: February 2023



SCALE 1" = 200'  
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 A106\_AIR23.DGN 2/7/2023 10:29:48 AM

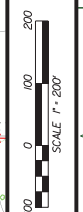




**LEGEND**

- Total Property Area Controlled by WM = 563.0 Acres
- Total Permitted Waste Footprint = 28.5 Acres
- Not Overfill - Cut Is Due To Poor Design Interface @ Perimeter Road Correction in Current Permit Mod (Review Dwg. 07)

This Drawing Illustrates Conceptual - Top of Final Grades Based on Permitted Grades and Details. Waste Management can use for Planning and Budgeting discussions. Conceptual Grades are Not Intended for Permitting or Construction purposes.



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Revisions	
No.	Description

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

Project Location:  
**Eco Vista Class 4 Landfill**  
 Springdale, Arkansas

Permitted Final Grades  
 by Genesis: June 2005

Facility ID: AR 0018  
 Drawing No: 4  
 Scale: 1" = 200'  
 Date: February 2023

# **Attachment C**

## **Leachate Head Level Inspection Results**



## Eco Vista Class 4 Landfill

### Leachate Head Level Inspection

Level Control Data	Class 4 - Site 11		Class 4 - Site 6		Elevation (feet)		Display (inches)	
	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)	Elevation (feet)	Display (inches)
Point of Compliance		36.0		36.0				
Bottom of Liner		24.0		24.0				
Bottom of Sump		0.0		0.0				
Panel Reading	--	24.3	--	24.2				
Depth Above Liner	--	<b>0.3</b>	--	<b>0.2</b>				

Inspection Date: 3/22/2023  
 Inspector Name: Brad N. Fureigh, PE



# **Attachment D**

## **Updated Financial Assurance**



# LANDFILL CLOSURE - COST ESTIMATE WORKSHEET

OWNER: Eco-Vista, LLC	PERMIT No.: 0290-S4-R2	AFIN No.: 72-00144
OPERATOR: Eco-Vista, LLC	ESTIMATOR: Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977)	DATE: March 28, 2023
TOTAL PERMITTED WASTE DISPOSAL ACRES: 40.7		
TOTAL PERMITTED ACRES CERTIFIED CLOSED: 0		
LARGEST ACREAGE EVER REQUIRING FINAL COVER OVER ACTIVE LANDFILL LIFE: 40.7 (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-S4-R2      AFIN: 72-00144

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
<b>PROFESSIONAL SERVICES</b>							
1.0.0	Engineering (Design, Bid Documents, Procurement, Construction Contract Management)	1	Lump Sum	\$27,500	\$	27,500	Engineer's estimate
1.1.0	Topographic and Boundary Survey	40.7	ACRE	\$225	\$	9,158	Engineer's estimate
1.3.0	Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	\$100,000	\$	100,000	\$60,000 Construction Observation + \$20,000 Test & Report + \$20,000 Certification
	<b>Professional Services Subtotal</b>				\$	136,658	
<b>FINAL COVER</b>							
2.0.0	<b>Low Permeability Soil Layer</b>						
2.1.0	Preparation of landfill to receive cover (final grading)	40.7	ACRE	\$1,500	\$	61,050	Engineer's estimate based on prior bids
2.1.1	Clay Liner, On-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	103,419	CU. YD.	\$4.65	\$	480,897	Engineer's estimate based on prior bids
2.1.2	Clay, Off-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	0	CU. YD.	\$0.00	\$	-	N/A
2.1.3	<b>Low Permeability Soil Layer Subtotal</b>				\$	541,947	
<b>Geomembrane and Drainage Layer</b>							
2.2.0	<b>Geomembrane and Drainage Layer</b>						
2.2.1	Drainage material-sand	0	CU. YD.	\$0.00	\$	-	N/A
2.2.2	Drainage material-geomembrane	0	SQ. FT.	\$0.00	\$	-	N/A
2.2.3	Geomembrane	0	SQ. FT.	\$0.00	\$	-	N/A
	<b>Geomembrane and Drainage Layer Subtotal</b>				\$	-	
<b>Protective Soil and Vegetative Layer</b>							
2.3.0	<b>Protective Soil and Vegetative Layer</b>						
2.3.1	Protective Soil, On-site (excavate, transport, place, compact) (Quantity must match earthwork balance and must be guaranteed for future availability)	0	CU. YD.	\$0.00	\$	-	N/A
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)	32,831	CU. YD.	\$4.05	\$	132,967	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	\$	-	N/A
2.3.5	Seeding and mulching	40.7	ACRE	\$2,100	\$	85,470	Engineer's estimate based on prior bids
2.3.6	Fertilizer	40.7	ACRE	\$400	\$	16,280	Engineer's estimate based on prior bids
	<b>Protective Soil and Vegetative Layer Subtotal</b>				\$	234,717	
<b>EROSION CONTROL</b>							
3.0.0	<b>EROSION CONTROL</b>						
3.1.0	Terraces and letdowns	1,150	Lin. FT.	\$90	\$	103,500	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	1,200	Lin. FT.	\$5.00	\$	6,000	Engineer's estimate based on prior bids
3.4.0	Riprap ditching/channels (includes rock in mid-slope benches)	1,200	Lin. FT.	\$17	\$	20,400	Engineer's estimate based on prior bids
	<b>Erosion Control Subtotal</b>				\$	133,900	
<b>GAS SYSTEM</b>							
4.0.0	<b>GAS SYSTEM</b>						
4.1.0	Gas vents, _____ 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	0	ACRE	\$0.00	\$	-	N/A
4.3.4	Ancillary gas equipment (piping, blowers, condensate collection)	0	ACRE	\$0.00	\$	-	N/A
	<b>Gas System Subtotal</b>				\$	-	

**LANDFILL CLOSURE COST ESTIMATE WORKSHEET**

Permit: 0290-S4-R2 AFIN: 72-00144

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
<b>5.0.0 GROUNDWATER MONITORING SYSTEM</b>							
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)	0	EVENT	\$0.00	\$		N/A
5.5.0	Baseline sample analysis and reporting (4 events per first year, _____ samples per event)	0	EVENT	\$0.00	\$		N/A
	<b>Groundwater Monitoring System Subtotal</b>				\$	\$	
<b>6.0.0 LEACHATE COLLECTION SYSTEM</b>							
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
	<b>Leachate Collection System Subtotal</b>				\$	\$	
<b>7.0.0 OPERATIONS AND INVENTORY REMOVAL</b>							
7.1.0	Excess solid waste	0	CU. YD.	\$0.00	\$		N/A
7.2.0	Mobile equipment/machinery (e.g., containers, tanks, etc...)	0	Lump Sum	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
7.3.0	Stored leachate	0	GAL.	\$0.00	\$		N/A
7.4.0	Contaminated soils	0	CU. YD.	\$0.00	\$		N/A
	<b>Operations and Inventory Removal Subtotal</b>				\$	\$	
<b>8.0.0 DEMOLITION/REMOVAL SITE IMPROVEMENTS</b>							
8.1.0	Office/shop/maintenance and other ancillary buildings	0	Lump Sum	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
8.2.0	Equipment to be decommissioned (e.g., weigh scales, baling/solidification pits, collection pits/sumps, piping, etc...)	0	Lump Sum	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
8.3.0	Site Utilities	0	Lump Sum	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
	<b>Demolition/Removal Site Improvements Subtotal</b>				\$	\$	
<b>9.0.0 REPLACE/REBUILD SITE ACCESS CONTROLS</b>							
9.1.0	Fencing	0	Lin. FT.	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
9.2.0	Gates	0	Lump Sum	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
9.3.0	Access barriers	1	Lump Sum	\$2,800	\$	2,800	Engineer's Estimate
9.4.0	Other security equipment	0	Lump Sum	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
	<b>Replace/Rebuild Site Access Controls Subtotal</b>				\$	2,800	
<b>10.0.0 BORROW AREA RECLAMATION</b>							
10.1.0	Regrade and site prep	0	ACRE	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
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	0	ACRE	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
10.5.0	Fertilizer	0	ACRE	\$0.00	\$		Included in EVLF Class 1 Landfill -- Closure Cost Estimates
	<b>Borrow Area Reclamation Subtotal</b>				\$	\$	
	<b>Total Closure Cost Subtotal</b>				\$	1,050,021	
<b>11.0.0 MISCELLANEOUS</b>							
11.1.0	Administration and Contingency			\$42,001	\$	42,001	Approximately 4% of Total Closure Cost
	<b>Misc. Subtotal</b>				\$	42,001	
	<b>TOTAL CLOSURE COST</b>				\$	1,092,022	
<b>12.0.0 ANNUAL INFLATION FACTOR ADJUSTMENTS</b>							
12.1.0	2022 Inflation Adjustment		Year	2022	Inflation	1,058	Adjusted Total
					\$	1,155,359	<a href="http://www.aedq.state.ar.us/sw/permits/financial.aspx">http://www.aedq.state.ar.us/sw/permits/financial.aspx</a>

# LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET

OWNER: Eco-Vista, LLC	PERMIT NO.: 0290-S4-R2	AFIN: 72-001.44
OPERATOR: Eco-Vista, LLC	ESTIMATOR: Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977)	
TOTAL PERMITTED WASTE DISPOSAL ACRES: 40.7	DATE: March 28, 2023	
TOTAL PERMITTED ACRES CERTIFIED CLOSED: 0		

## LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET      Permit: 0290-S4-R2      AFIN: 72-00144

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
<b>1.0.0 PROFESSIONAL SERVICES</b>							
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	\$2,300	\$	2,300	Engineer's Estimate
1.3.0	Corrective Action Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	\$7,700	\$	7,700	Engineer's Estimate
	<b>Professional Services Annual Subtotal</b>					\$ 12,750	
<b>2.0.0 FINAL COVER ROUTINE MAINTENANCE</b>							
2.1.0	Inspect soil cover, vents, flares, drainage letdowns and outfalls, etc...	2	EVENT	\$1,150	\$	2,300	Engineer's Estimate
2.2.0	Mowing/Trimming (40.7 acres twice per year)	81.4	ACRE	\$60	\$	4,884	Engineer's Estimate
2.3.0	Clean Drain/Vent Openings	2	EVENT	\$1,150	\$	2,300	Engineer's Estimate
	<b>Final Cover Routine Maintenance Annual Subtotal</b>					\$ 9,484	
<b>3.0.0 FINAL COVER REPAIRS</b>							
3.1.0	Remove/incorporate unacceptable materials (e.g., dead vegetation, solid waste)	1	ACRE	\$55	\$	55.00	Engineer's estimate based on prior bids
3.2.0	Scarify and prepare surface	1	ACRE	\$1,500	\$	1,500.00	Engineer's estimate based on prior bids
3.3.0	Soil, On-Site (excavate, transport, place, compact)	3,227	CU. YD.	\$4.65	\$	15,004.00	Engineer's estimate based on prior bids
3.4.0	Soil, Off-site (excavate, transport, place, compact)		CU. YD.	\$0	\$	N/A	
3.5.0	Seeding and mulching	1	ACRE	\$2,100	\$	2,100.00	Engineer's estimate based on prior bids
3.6.0	Fertilizer	1	ACRE	\$400	\$	400.00	Engineer's estimate based on prior bids
	<b>Final Cover Repairs Annual Subtotal</b>					\$ 19,059.00	
<b>4.0.0 ACCESS ROADS REPAIRS</b>							
4.1.0	Reshape/grade subgrade	0	SQ. FT.	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
4.2.0	Gravel (transport, place, compact)	0	TON	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
4.3.0	Drainage Structures (e.g., culverts,	0	LS	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
4.4.0	Riprap ditching/channels	0	LS	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
	<b>Access Roads Repair Annual Subtotal</b>					\$ -	
<b>5.0.0 SURFACE WATER MANAGEMENT OPERATION AND MAINTENANCE (O&amp;M)</b>							
5.1.0	Collection system operation and maintenance (ditches, piping conveyances, outfalls, sampling points repair/replace)	0	Lump Sum	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
5.2.0	Stormwater storage (sediment pond) operation/repairs	0	Lump Sum	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
5.3.0	Sample collection (2 events per year)	0	EVENT	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
5.4.0	Sample analysis and reporting (2 events per year)	0	EVENT	\$0.00	\$	-	Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
	<b>Surface Water Management O&amp;M Annual Subtotal</b>					\$ -	
<b>6.0.0 LEACHATE COLLECTION SYSTEM O&amp;M</b>							
Generation Rate = 1,972,000 gal/yr.							
6.1.0	Collection operation/maintenance (pump, piping, storage...operation/repair/replace)	1	YEAR	\$2,800	\$	2,800	Engineer's Estimate
6.2.0	Leachate loading, off-loading and off-site transportation		EVENT	\$0.00	\$	-	Forceman in place to transport to NW Arkansas Conservation Authority Wastewater Treatment Facility
6.3.0	Leachate Treatment/Disposal	1,972,000	GAL.	\$0.01166	\$	22,994	NACA WWTP Agreement
6.4.0	Additional/upgrades for piping, pumps and storage	0	Lump Sum	\$0.00	\$	-	N/A
6.5.0	Leachate sample collection	1	YEAR	\$500	\$	500	Engineer's Estimate
6.6.0	Leachate sample analysis and reporting	1	YEAR	\$750	\$	750	Engineer's Estimate
	<b>Leachate Collection System O&amp;M Annual Subtotal</b>					\$ 27,044	



**LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET** Permit: 0290-S4-R2 AFIN: 72-00144

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
<b>7.0.0</b>	<b>GROUNDWATER MONITORING SYSTEM O&amp;M</b>						
	Number of Wells in Approved System						
7.1.0	Well maintenance (e.g., protective casing (lock & hinges) repair/replacement, well pad repair/replace, etc...)	0	LS	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
7.2.0	Upgrade/redevelop existing wells	0	LS	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
7.3.0	Well Replacement	0	LS	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
7.4.0	Sample collection (2 events per year)	0	EVENT	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
7.5.0	Sample analysis and reporting (2 events per year)	0	EVENT	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
	<b>Groundwater Monitoring System O&amp;M Annual Subtotal</b>				\$		
<b>8.0.0</b>	<b>GAS MONITORING SYSTEM O&amp;M</b>						
8.1.0	Number of Gas Monitoring Probes/Wells						
8.2.0	Methane monitoring of probes/wells (4 per year)	0	EVENT	\$0.00	\$		N/A
8.3.0	Methane monitoring at site boundary and structures (4 per year)	0	EVENT	\$0.00	\$		N/A
8.4.0	Sample analysis and reporting	0	EVENT	\$0.00	\$		N/A
	<b>Gas Monitoring System O&amp;M Annual Subtotal</b>				\$		
<b>9.0.0</b>	<b>GAS EXTRACTION SYSTEM O&amp;M</b>						
9.1.0	Passive System						
9.1.1	Passive well head flare maintenance	0	EACH	\$0.00	\$		N/A
9.2.0	Active System						
9.2.1	Flare, _____ BTU/hour	0	EACH	\$0.00	\$		N/A
9.2.2	Additional Well Installation/Upgrades	0	EACH	\$0.00	\$		N/A
9.2.3	Ancillary gas equipment repair/replacement (piping, blowers, condensate collection)	0	Lump Sum	\$0.00	\$		N/A
	<b>Gas Extraction System O&amp;M Annual Subtotal</b>				\$		
<b>10.0.0</b>	<b>CORRECTIVE ACTION EVALUATION AND IMPLEMENTATION</b>						
10.1.0	Resurvey monitoring well reference points and site benchmarks (prorate for annual expenses)	0	EACH	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
10.2.0	Remove sediments from stormwater basin(s) (prorate for annual expenses)	0	EACH	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
10.3.0	Groundwater exceedances statistical evaluation	0	EACH	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
10.4.0	Groundwater alternate source determination (prorate for annual expenses)	0	EACH	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
10.5.0	Groundwater compliance monitoring (prorate for annual expense)	0	EACH	\$0.00	\$		Included in EVLF Class 1 Landfill -- Post Closure Cost Estimates
10.6.0	Other: _____				\$		
	<b>Corrective Action Evaluation and Implementation Annual Subtotal</b>				\$		
	<b>Total Post-Closure Care Annual Cost Subtotal</b>				\$	68,337	
<b>11.0.0</b>	<b>MISCELLANEOUS</b>						
11.1.0	Administration and Contingency				\$	2,733	Approximately 4% of Total Post Closure Cost
	<b>Misc. Subtotal</b>				\$		
	<b>TOTAL ESTIMATED ANNUAL POST-CLOSURE CARE COST</b>				\$	71,070	
	ESTIMATED 2 YEAR POST-CLOSURE CARE PERIOD				\$	142,140	2 x "Total Estimated Annual Post-Closure Care Cost".
	<b>CERTIFICATE OF INSURANCE</b>				\$	28,428	20% of Total Post-Closure Care Cost
<b>12.0.0</b>	<b>ANNUAL INFLATION FACTOR ADJUSTMENTS</b>						
12.1.0	2022 Inflation Adjustment	Year 2022	Inflation	2 Year Post-Closure Cost	\$	30,077	<a href="http://www.aqseq.state.ar.us/sw/permits/financial.aspx">http://www.aqseq.state.ar.us/sw/permits/financial.aspx</a>