Haley Griffith (adpce.ad)

Subject:

RE: Green Bay Packaging Minor Permit Modification Application (AFIN: 15-00001; Permit 0284-S3N)

From: Jonathan King <<u>jking@promusengineering.com</u>>
Sent: Thursday, June 5, 2025 12:20 PM
To: Brad Fureigh <<u>bfureigh@promusengineering.com</u>>; Richard Bennett (adpce.ad)
<<u>Richard.Bennett@adeq.state.ar.us</u>>; Greg Banic (adpce.ad) <<u>Greg.Banic@adeq.state.ar.us</u>>
Cc: Wesson, Jacob <<u>jwesson@gbp.com</u>>; Hence Hooper <<u>hhooper@promusengineering.com</u>>; Gray, Evan
<<u>egray@gbp.com</u>>

Subject: RE: Green Bay Packaging Minor Permit Modification Application (AFIN: 15-00001; Permit 0284-S3N)

Mr. Bennett,

Per our phone conversation, see the attached updated Closure & Post-Closure Plan for the GBP Arkansas Kraft Division Class 3N Landfill. The revisions to the Closure Plan are based on an operational need to retain an existing haul road that runs east to west between the existing closed landfill and the active landfill area. This updated plan is intended to replace the one that was included in the minor permit modification submitted on August 16, 2024 (see email below).

Also, following up on the email that Mr. Fureigh sent on May 21 (see attached), regarding the design narrative of the bottom liner system. The email was intended to describe the existing (as-built) and future bottom liner systems of the landfill. We are NOT proposing to change the bottom liner system at this time. Please let me know if you have any additional questions regarding this.

Lastly, the site will begin working on the updated financial assurance mechanism to reflect the updated costs in the attached Closure & Post-Closure Plan. We will coordinate with Ms. Susan Speake and Ms. Barbara Matthews throughout this process.

Thanks!

Jonathan B. King, P.E. Project Engineer | Promus Engineering, LLC M: (501) 398-7785 jking@promusengineering.com www.promusengineering.com

From: Brad Fureigh < bfureigh@promusengineering.com >
Sent: Friday, August 16, 2024 4:40 PM
To: Richard Bennett (adpce.ad) < Richard.Bennett@adeq.state.ar.us >; Greg Banic (adpce.ad)
<Greg.Banic@adeq.state.ar.us >
Cc: Wesson, Jacob < jwesson@gbp.com >; Jonathan King < jking@promusengineering.com >; Hence Hooper
<hooper@promusengineering.com >
Subject: Green Bay Packaging Minor Permit Modification Application (AFIN: 15-00001; Permit 0284-S3N)

Good afternoon Mr. Bennett,

On behalf of our client, Green Bay Packaging, Inc. (GBP), please see attached a minor permit modification pertaining to the GBP Arkansas Kraft Division Class 3N Landfill, located near Morrilton, AR. The proposed minor modification includes a revision to the Closure Plan that will eliminate the need to install final cover over interim slopes, illustrates removal of existing final cover over interim slopes for additional waste placement to final grades, and shows updated final cover sequencing. Updated Closure and Post-Closure cost estimates are also included.

We appreciate your consideration and review of the attached submittal. Please let us know if you have any questions or need additional information.

Thanks, and have a great weekend!

Brad N. Fureigh, PE Principal Engineer | Promus Engineering, LLC M: (501) 554-4547 bfureigh@promusengineering.com www.promusengineering.com

Haley Griffith (adpce.ad)

Subject:

RE: Green Bay Packaging - Draft Permit

From: Brad Fureigh <bfureigh@promusengineering.com>
Sent: Wednesday, May 21, 2025 3:18 PM
To: Richard Bennett (adpce.ad) <Richard.Bennett@arkansas.gov>
Cc: Jonathan King <jking@promusengineering.com>
Subject: RE: Green Bay Packaging - Draft Permit

Richard,

I'm so sorry, I sent the information to Jonathan to look at and forgot to send it to you. However, we may have a change to the minor mod. We have a call in the morning with GBP to discuss potential changes they may want. We'll follow up with you after the call to let you know what they are potentially wanting to do. Below is the bottom liner narrative I came up with.

The bottom liner system for any newly constructed waste cell must consist of twenty four (24) inches of compacted clay exhibiting a maximum hydraulic conductivity of 1x10-7 centimeters per second (cm/s). In areas of cut, the bottom eight (8) inches may be scarified and recompacted. 60 mil HDPE geomembrane liner shall be placed in the flowline of the leachate collection corridor (also referred to as "Underdrain" on the approved Permit Drawings) with a minimum 12-inch overlap outside of the trench. The compacted clay liner will be overlain by a six (6) inch thick protective cover layer consisting of either sand or shale.



Brad N. Fureigh, PE

Principal Engineer | Promus Engineering, LLC 19 Ryeland Dr, Suite B | Cabot, Arkansas 72023 M: (501) 554-4547 bfureigh@promusengineering.com www.promusengineering.com

From: Richard Bennett (adpce.ad) <<u>Richard.Bennett@arkansas.gov</u>>
Sent: Wednesday, May 21, 2025 2:56 PM
To: Brad Fureigh <<u>bfureigh@promusengineering.com</u>>
Subject: FW: Green Bay Packaging - Draft Permit

I never got a response to this email, can you tell me the status?

From: Richard Bennett (adpce.ad)
Sent: Tuesday, May 6, 2025 9:38 AM
To: Brad Fureigh <<u>bfureigh@promusengineering.com</u>>
Subject: Green Bay Packaging - Draft Permit

Brad, can I get a bottom liner narrative to match what is presented in bottom liner drawing 7 of 13 in Doc ID 28317? I need it to draft the permit for your modification request.

Richard Bennett | Engineer, PE Regulated Waste Operations Division of Environmental Quality | Office of Land Resources 5301 Northshore Drive | North Little Rock, AR 72118 t: 501.682.0861 | e:richard.bennett@arkansas.gov







CLOSURE & POST-CLOSURE CARE PLAN

Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill Morrilton, Arkansas

> Permit No.: 0284-S3N AFIN: 15-00001

June 2025 Promus Project No. 240207

Prepared for: Green Bay Packaging, Inc. – Arkansas Kraft Division 338 Highway 113 South Morrilton, Arkansas 72110



Arkansas Professional Engineer License No. 14977

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ATTACHMENTS

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CLOSURE & POST-CLOSURE CARE PLAN

Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill Morrilton, Arkansas

1.0 INTRODUCTION

1.1. Purpose, Scope, and Applicability

This Closure and Post-Closure Care Plan addresses Chapters 13 and 14 of Rule 22, approved by the Pollution Control and Ecology Commission (PCEC) on March 28, 2008 (Solid Waste Management Rules), for the Green Bay Packaging – Arkansas Kraft Division Class 3N Landfill (GBP-AKD or Facility). This plan includes a description of the steps that will be taken to close each landfill unit (i.e., Area), a general schedule for closure, a description of the final cover system and the methods used to install the cover, and a description of post-closure care activities. The Permit Drawings (DEQ Doc. ID 28317) created by Garver + Garver, P.A., which is now known as Garver, LLC (Garver), in 1995 were utilized in developing this Closure Plan. A copy of the Closure and Post-Closure Plan will be placed in the Facility permanent operating record (POR) and notification will be provided to the Arkansas Energy and Environment, Department of Environmental Quality (DEQ) as required by *Rule 22.1301(d)*.

1.2. Facility Description and Design

Arkansas Kraft Division owns and operates the GBP-AKD in accordance with the DEQ Solid Waste Permit 0284-S3N. The GBP-AKD is located approximately one mile southeast of Oppelo in Conway County, Arkansas. The site is generally located in portions of Sections 7, 8, 17 and 18, Township 5 North, Range 16 West in Conway County, Arkansas. The GBP-AKD, situated on the southern side of the roughly 700-acre mill site, is currently designed with a total waste disposal footprint of 100 \pm acres and a total waste disposal capacity of 4,172,662 cubic yards.

2.0 CLOSURE PLAN

The following sections describe the general layout, design, and operations of the GBP-AKD. This Closure Plan has been developed as a site plan that addresses the waste management and disposal areas at the Facility.

2.1. General Site Layout

The GBP-AKD site consists of approximately 185 acres and includes an active Class 3N Landfill and various support facilities including the vehicle/equipment maintenance facilities, borrow area(s) and surface water drainage systems. The landfill is utilized only for disposal of waste generated on the mill site in conjunction with the pulp and paper manufacturing process.

2.2. Solid Waste Disposal Area

The bottom liner system, leachate collection system, stormwater control system, and final cover system design are described in the permit modification application (PMA) prepared by Garver in 1995 (DEQ Doc. ID 28002). As illustrated on the proposed closure sequencing presented in **Attachment A**, the final cover system for the GBP-AKD will require three additional closure sequences, not including the areas that have already received final cover. A copy of the closure sequencing drawing is included in **Attachment A**.



2.3. Closure Requirements

This Closure Plan includes the steps that are necessary to close the landfill units at any point during its active life in accordance with the requirements of *Rule 22.1301* and the permitted final cover design.

2.3.1. Description of Final Cover System - (Rule 22.1301(c)(1))

The Landfill will be closed in phases throughout the life of the Facility. The acreage to be closed during each phase will generally be in accordance with the acreages presented in **Table 1**. A generalized sequence of filling and capping is presented in **Attachment A**. An estimated closure schedule is presented in **Table 2**. The scheduling of interim closure will take into account seasonal weather conditions. As illustrated in the Permit Drawings for Areas 1-7 (DEQ Doc. ID 28317), one final cover design is proposed for the facility. In general, according to Permit Condition 15, the final cover system will consist of from top to bottom:

Final Cover System

- 6-inch thick vegetative cover; and
- 24-inch thick compacted clay liner ($k \le 1.0 \times 10^{-7}$ cm/sec).

Construction drawings and specifications will be prepared for each phase of closure in accordance with the approved final cover design and this Closure Plan. The closure cost estimates for the Facility will be adjusted annually to account for inflation and any partial closures or modified permit conditions. Closure construction will be monitored and documented in accordance with Permit Condition 15 of the Solid Waste Permit 0284-S3N, and Rule 22.428((b)-(i)). Documents related to final cover system construction activities will be placed in the POR and the DEQ will be notified of such activity.

2.3.2. Estimate of Largest Area - (Rule 22.1301(c)(2))

The estimated largest area of a landfill unit ever requiring closure at any time during the active life of the Landfill will vary based on the closure sequencing referenced in **Table 1** and as illustrated by the proposed closure sequencing present in **Attachment A**.

2.3.3. Maximum Inventory - (Rule 22.1301(c)(3))

The estimated maximum inventory of waste on-site over the active life in the GBP-AKD is the design capacity of approximately 4,172,662 cubic yards.

2.3.4. Schedule for Closure - (Rule 22.1301(c)(4))

Closure of the Facility will begin following the final receipt of waste in a given unit (i.e., area or phase); or if the Facility has remaining capacity and there is a reasonable likelihood that it will receive additional waste, no later than one year after the most recent receipt of waste. An estimated schedule, based on the largest area of the Facility unit requiring a final cover at any time during the active life, for completing all activities necessary for closure is presented in **Table 2**.

2.3.5. Closure Plan Approval - (Rule 22.1301(d))

If there are any proposed changes to the Closure Plan, the Facility will submit the revised Closure Plan and receive approval from the DEQ, prior to beginning any closure activities.



2.3.6. Notification Requirements - (Rule 22.1301(e))

The DEQ will be notified when a unit of the Facility stops receiving waste for disposal. The Director of the DEQ will be notified, prior to the beginning of closure of each unit, that the intent to close the unit has been placed in the POR.

2.3.7. Estimated Closure Costs - (Rule 22.1402)

In accordance with *Rule 22.1402*, estimated costs for closing the Facility will be developed, based on hiring a third-party contractor to close the largest area requiring final cover at any given time during the operation of the Class 3N Facility. The Estimated Closure Cost for the Facility is included in **Attachment B** and updated annually in the Annual Engineering Inspection Report (AEIR).

2.3.8. Facility Recordkeeping and Report Requirements - (Rule 22.520(a)(6))

A copy of the approved Closure and Post-Closure Plan will be kept in the POR (*Rule 22.520(a)(6)*). The Director of the DEQ will be notified that the Closure and Post-Closure Plan has been prepared and placed in the POR (*Rule 22.1302(e)*). The records will be permanently maintained in the Facility operating record unless destruction of the records is authorized by the Director of the DEQ following the completion of the post-closure monitoring period (*Rule 22.1301(d)*). The Director of the DEQ will be provided with the initial and updated Closure and Post-Closure Cost Estimates for the Class 3N Facility. These estimates will also be placed within the POR (*Rule 22.1301(d)*).

2.3.9. Financial Assurance

Evidence of a financial assurance mechanism for closure and post-closure care will be placed in the POR and provided to the DEQ annually.

2.3.10.Site Survey (Rule 22.1301(i))

Upon completion of installing the final cover system over the entire Facility, the site will be surveyed by a registered professional engineer or surveyor to document the final elevations of the Class 3N Facility, the location of surface improvements, site boundaries, and areas that received waste. Final closure of the site will be achieved when all permitted cells have been filled and have the final cover system installed. Closure will be considered complete after the final cover has been inspected and approved by the DEQ. The final cover plan and typical final cover details for the GBP-AKD are included in the Permit Drawings (DEQ Doc. ID 28317).



Phases Requiring Total Area Closure Constructed (Acres)		Total Area Closed (Acres)	Total Area Requiring Closure (Acres) ^b
Existing	92.3	69.2	23.1
Sequence No. 1	96.4	77.6	18.8
Sequence No. 2	100.6	67.6	33.0
Sequence No. 3	100.6	100.6	0.0

Table 1. Proposed Closure Sequencing^a

a. Acreages include the existing closed permitted landfill area south of areas 1-7 as shown on the permit drawings. DEQ Doc ID# 28317.

b. Estimate of largest area ever requiring final cover at any time during the active life of the Landfill based on the sequencing illustrated in Attachment A.

Closure Activity/Task	Number of Days to Complete
Notify the DEQ of intent to perform closure for each cell	1
Begin closure activities	19
Perform grading of waste	10
Install final cover system	120
Seed and mulch	10
Installation of erosion and sediment control structures	10
Complete certification report	10
Estimated Total Time to Complete Closure	180

Table 2. Estimated Closure Schedule

It is estimated that closure of each unit (i.e., area or phase) at the Facility will be completed no later than 180 days following the beginning of closure activities. If necessary, due to inclement weather or other circumstances (*Rule 22.1301(g)*), a request to extend this schedule may be made to the Director of the DEQ.

2.4. Closure Documentation

2.4.1. Land Use Restrictions (Rule 22.1301(j) and (k))

Following placement of final cover over the entire Facility, a notation will be recorded on the deed to the property. The Director of the DEQ will be notified that the notation has been recorded and a copy has been placed in the POR. The notation on the deed must inform any potential purchaser of the property of the following:

• The past use of the land was as a solid waste disposal facility;



- Future use shall comply with the PCEC regulations and shall not disturb the integrity of the final cover system or any other components of the containment or monitoring system; and
- It shall be unlawful for any person, partnership, company, corporation or other entity to build, erect, or construct any house, home, or building to be used for residential purposes. The restriction of residential construction applies only to the areas actually used for solid waste disposal. The owner may request permission from the Director of the DEQ to remove the notation from the deed if all wastes are removed from the Facility.

2.4.2. Closure Certification (Rule 22.1301(l))

Following closure of the Facility, the Director of the DEQ will be provided a certification, signed by a registered professional engineer, verifying that closure has been completed in accordance with the closure plan, and that the certification has been placed in the POR. A final closure report shall accompany the certification that includes:

- The final survey, in accordance with Rule 22.1301(i);
- Quality control and quality assurance data documenting proper construction and installation of the cover system;
- A copy of the deed notation required under *Rule 22.1301(j)*, and
- Other information that the DEQ may deem necessary to making the certification described in *Rule 22.1302(m)*.

3.0 POST-CLOSURE PLAN

The post-closure period shall be two years following the date of written confirmation by the DEQ that the Facility has been closed in accordance with the approved closure plan, unless the period is decreased or increased by the Director of the DEQ (*Rule 22.1302(c)(4)*). The period may be decreased if the Facility demonstrates that the reduced period is sufficient to protect human health and the environment and this demonstration is approved by the Director of the DEQ (*Rule 22.1302(c)(4)(i)*). Conversely, the period may be increased if the Director determines that the lengthened period is necessary to protect human health and the environment (*Rule 22.1302(c)(4)(ii)*). During the post-closure care period, the closure cover shall be maintained and monitoring activities shall be performed as described in the following subsections.

3.1. Post-Closure Monitoring and Maintenance (Rule 22.1302)(b))

Access to the site after closure will be controlled through maintenance of existing fencing and signs, and access gates will be locked to discourage unauthorized entry. The integrity of the final cover shall be maintained, including repair of the cover, as necessary to correct the effects of settlement, subsidence, and erosion, and prevent runoff and run-on from damaging the cover. Vegetation shall be mowed at least annually to control the growth of unwanted vegetation that may interfere with integrity of the final cover. Surface areas that are cracked, eroded and uneven must be filled and reseeded and ditches maintained (*Rule 22.1302(b)(1)*).

The leachate collection system will be maintained and properly operated during the post-closure period in accordance with the requirements of *Rule 22.529* (reference *Rule 22.1302(b)(2)*). However,



the Facility may demonstrate to the Director of the DEQ that leachate no longer poses a threat to human health and the environment in order to stop managing leachate.

The Facility will continue to monitor the groundwater in accordance with the requirements of Chapter 12 and maintain the groundwater monitoring system (*Rule 22.1302(b)(3)*).

The surface water control systems will be operated and maintained in accordance with *Rule 22.517* and *Rule 22.518* or until at such time that permanent erosion control measures have been established at the site.

3.2. Contact Persons (Rule 22.1302)(d)(2))

The name, address, and telephone number of the person to contact about the Facility during the postclosure period will be provided upon notice of closure.

3.3. Post-Closure Cost Estimate (Rule 22.1403))

An estimate of the cost to perform post-closure activities is based on the estimated cost of hiring a third party to conduct the activities. The cost estimate is based on the most expensive costs of post-closure care during the post-closure care period. The Estimated Post-Closure cost for the Facility is updated annually during the life of the Facility to account for inflation or other changes in unit rates and is included in the AEIR.

3.4. Certification of Completion (Rule 22.1302(f))

Following completion of the post-closure care period for the Facility, the Director of the DEQ will be notified that a certification has been placed in the POR. The certification, signed by an independent registered engineer and approved by the Director of the DEQ, will verify that post-closure care has been completed in accordance with the Post-Closure Plan.

3.5. Site Management and Use (Rule 22.1302(h))

It is anticipated that upon completion of post-closure care, the Facility will become open grassland. The actual long-term use of the land will be determined upon notice of closure. The Facility final cover will not be disturbed without prior approval from the Director of the DEQ.

4.0 **REFERENCES**

Garver + Garver, P.A., "Permit Application and Operations Methods, Green Bay Packaging, Inc. – Arkansas Kraft Class 3N Landfill, Morrilton, AR", November 1995. DEQ Doc. ID 28002.

Garver + Garver, P.A., "Permit Plans, Green Bay Packaging, Inc. – Arkansas Kraft Class 3N Landfill, Morrilton, AR", November 1995. DEQ Doc. ID 28317.

DEQ Solid Waste Permit 0284-S3N, Effective November 8, 1996, Reissued May 23, 2008



Attachment A

Closure Sequencing





Table 1. Proposed Closure Sequencing^a

Phases Requiring Total Area Closure Constructed (Acres)		Total Area Closed (Acres)	Total Area Requiring Closure (Acres) ^b
Existing	92.3	69.2	23.1
Sequence No. 1	96.4	77.6	18.8
Sequence No. 2	100.6	67.6	33.0
Sequence No. 3	100.6	100.6	0.0

Acreages include the existing closed permitted landfill area south of areas 1-7 as shown on the permit drawings. DEQ Doc ID# 28317.
 Estimate of largest area ever requiring final cover at any time during the active life of the Landfill based on the sequencing illustrated in Attachment A.

LEGEND



PERMITTED LANDFILL BOUNDARY

CELL BOUNDARY

INDEX CONTOURS

APPROXIMATE AREA OF EXISTING FINAL COVER

APPROXIMATE AREA OF EXISTING FINAL COVER REMOVAL APPROXIMATE AREA OF PROPOSED FINAL COVER

NOTES:

- 1. CONTOURS OUTSIDE THE LANDFILL FOOTPRINT WERE TAKEN FROM DRAWINGS DEVELOPED BY GARVER & GARVER AND PROVIDED BY MASON SURVEYING.
- 2. CONTOURS INSIDE THE LANDFILL FOOTPRINT ILLUSTRATE INTERIM GRADES MERGED WITH FINAL GRADES FROM THE 1995 PERIMT DRAWINGS DEVELOPED BY GARVER & GARVER, DEQ DOC ID# 28317.
- EXISTING FINAL COVER ON INTERIM SLOPES WILL BE REMOVED TO CONTINUE WASTE PLACEMENT TO FINAL PERMITTED GRADES.
- 4. COORDINATES ARE BASED ON THE SITE SPECIFIC GRID SYSTEM AND TIED TO THE FOLLOWING PERMANENT SITE BENCHMARKS:

NUMBER	NORTHING	EASTING	ELEVATION
B-11	976.0600	4088.0700	304.2000
BM-2	965.3200	3100.5400	310.6800
BM-3	950.0000	3300.0000	313.0200







28

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LEGEND



PROPERTY BOUNDARY PERMITTED LANDFILL BOUNDARY CELL BOUNDARY INDEX CONTOURS TOP OF PROTECTIVE COVER CONTOURS APPROXIMATE AREA OF EXISTING FINAL COVER APPROXIMATE AREA OF EXISTING FINAL COVER REMOVAL APPROXIMATE AREA OF PROPOSED FINAL COVER

NOTES:

25

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LEGEND

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PROPERTY BOUNDARY PERMITTED LANDFILL BOUNDARY CELL BOUNDARY INDEX CONTOURS

TOP OF PROTECTIVE COVER CONTOURS

APPROXIMATE AREA OF EXISTING FINAL COVER

APPROXIMATE AREA OF EXISTING FINAL COVER REMOVAL

APPROXIMATE AREA OF PROPOSED FINAL COVER

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b. Estimate of largest area ever requiring final cover at any time during the active life of the Landfill based on the sequencing illustrated in Attachment A.

LEGEND



CELL BOUNDARY

PERMITTED LANDFILL BOUNDARY

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- 2. CONTOURS INSIDE THE LANDFILL FOOTPRINT ILLUSTRATE INTERIM GRADES MERGED WITH FINAL GRADES FROM THE 1995 PERIMT DRAWINGS DEVELOPED BY GARVER & GARVER, DEQ DOC ID# 28317.
- EXISTING FINAL COVER ON INTERIM SLOPES WILL BE REMOVED TO CONTINUE WASTE PLACEMENT TO FINAL PERMITTED GRADES.
- COORDINATES ARE BASED ON THE SITE SPECIFIC GRID SYSTEM AND TIED TO THE FOLLOWING PERMANENT SITE BENCHMARKS:

NUMBER	NORTHING	EASTING	ELEVATION	
B-11	976.0600	4088.0700	304.2000	
BM-2	965.3200	3100.5400	310.6800	
BM-3	950.0000	3300.0000	313.0200	



Attachment B

Closure & Post-Closure Cost Estimates

LAN	IDFILL CLOSURE - COST ESTIMA	TE W		SHEET					
	OWNER: Arkansas Kraft Division		PERMIT No/0284-S3N AFIN No: 15-00001 ESTIMATOR: Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977) DATE: June 4, 2025						
	OPERATOR: Green Bay Packaging Inc TOTAL PERMITTED WASTE DISPOSAL ACRES: ±100		ESTIMATOR	K: Brad N. Fureign, I	P.E. (Ark. License	d P.E. #: 14977)	DATE: June 4, 2025		
	TOTAL PERMITTED ACRES CERTIFIED CLOSED: ±69.2		ACRES CUR	RENTLY OPEN: 23.1					
	LARGEST ACREAGE EVER REQURING FINAL COVER OVER ACTIVE LANDFILL LIF	E: ±33.0							
AND	FILL CLOSURE COST ESTIMATE WORKSHEET				Permi	t: 0284-S3N	AFIN: 15-00001		
ITEM	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO		
No. 1.0.0	PROFESSIONAL SERVICES								
1.1.0	Engineering (Design, Bid Documents, Procurement, Construction Contract								
1.2.0	Mangement) Topographic and Boundary Survey	1 33	Lump Sum ACRE	\$50,000 \$ \$915 \$	50,000 30,195		Engineer's Estimate Engineer's Estimate		
130	Engineering Services (Construction Oversight, Testing, Reporting,	1		\$156,750 \$					
	Certification) Professional Services Subtotal	1	Lump Sum	\$156,750 \$	156,750 \$	236,945	Engineer's Estimate		
2.0.0 2.1.0	FINAL COVER Low Permeability Soil Layer								
2.1.1	Contractor Mobilization/Demobilization	1	ACRE	\$75,000 \$	75,000		Engineer's Estimate		
	Preparation of landfill to receive cover (final grading) Geosynthetic Clay Liner	33 0	ACRE SQ. FT.	\$1,500 \$ \$0.00 \$	49,500		Engineer's Estimate N/A		
2.1.5	Clay, On-site (excavate, transport, place, compact) (Quantity must match earthwork								
	balance) Low Permeability Soil Layer Subtotal	106,480	CU. YD.	\$10.00 \$	1,064,800 \$	1,189,300	Engineer's Estimate		
2.2.0	Geomembrane and Drainage Layer								
	Drainage materialsand Drainage materialgeocomposite (purchase + install)	0	CU. YD. SQ. FT.	\$0.00 \$ \$0.00 \$			N/A		
2.2.3	Geomembrane (40 mil HDPE) Geomembrane and Drainage Layer Subtotal	0	SQ. FT.	\$0.00 \$			N/A		
2.3.0	Protective Soil and Vegetative Layer				Ş				
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				-				
2.3.4	earthwork balance and must be guaranteed for future availability) Vegetative Soil (Topsoil), Off-site (excavate, transport, place) (Quantity must match	0	CU. YD.	\$0.00 \$			N/A		
	earthwork balance) Seeding and mulching	26,620 33	CU. YD. ACRE	\$20.00 \$ \$4,000 \$	532,400 132,000		Engineer's Estimate Engineer's Estimate		
2.3.6	Fertilizer	33	ACRE	\$750 \$	24,750		Engineer's Estimate		
	Protective Soil and Vegetative Layer Subtotal				Ş	689,150			
	EROSION CONTROL Temporary Stormwater Control & Management During Construction	1.0	LS	\$25,000 \$	25,000		Engineer's Estimate		
3.2.0	Checkdams, filters, inlet/outlet protection	1	Lump Sum	\$20,000 \$	20,000		Engineer's Estimate		
	Grass ditching/channels Concrete ditch lining & Concrete Culverts	0	Lin. FT. Lin. FT.	\$0.00 \$ \$0.00 \$			N/A N/A		
	Erosion Control Subtotal	-			\$	45,000			
	GAS SYSTEM			40.00 4			a. / a		
	Gas vents, vents, average depth Passive System	0	Lin. FT.	\$0.00 \$			N/A		
	Passive well head flare Active System	0	EACH	\$0.00 \$			N/A		
	Flare, BTU/hour	0	EACH	\$0.00 \$	-		N/A		
	Additonal Well Installation Ancillary gas equipment (piping, blowers, condensate collection)	0	ACRE ACRE	\$0.00 \$ \$0.00 \$			N/A N/A		
	Gas System Subtotal	0	ACILE		\$	-			
	GROUNDWATER MONITORING SYSTEM						r		
	Well installation Upgrade existing wells	1	EACH LS	\$0.00 \$ \$5,000.00 \$	- 5,000		N/A Engineer's Estimate		
	Dedicated pump/sampling system installation/upgrade	1	EACH	\$3,000.00 \$	3,000		Engineer's Estimate		
5.4.0	Baseline sample collection (4 events per first year, 2 samples per event)	4	EVENT	\$4,000.00 \$	16,000		Engineer's Estimate		
5.5.0	Baseline sample analysis and reporting (4 events per first year, 2 samples per event))	4	EVENT	\$2,500.00 \$	10,000		Engineer's Estimate		
	Groundwater Monitoring System Subtotal	4	EVENI	\$2,500.00	10,000 \$	34,000	Lighteel 3 Estimate		
	LEACHATE COLLECTION SYSTEM								
	Additional/upgrades for collection piping Additonal/upgrades to pumps	0	Lin. FT EACH	\$0.00 \$ \$3,000.00 \$	- 6,000.00		N/A Engineer's Estimate		
6.3.0	Additional/upgrades to storage containers	0	EACH	\$0.00 \$	-		N/A		
	Baseline sample collection Baseline sample analysis and reporting	1	EACH EACH	\$5,000.00 \$ \$10,000.00 \$			Engineer's Estimate Engineer's Estimate		
	Leachate Collection System Subtotal	•		,	\$	21,000			
	OPERATIONS AND INVENTORY REMOVAL	^	<i>a</i>	Ar 1 -			N/A		
	Excess solid waste Mobile equipment/machinery (e.g., containers, tanks, etc)	0	CU. YD. Lump Sum	\$0.00 \$ \$0.00 \$			N/A		
7.3.0	Stored leachate	0	GAL.	\$0.000 \$	-		N/A		
	Contaminated soils Operations and Inventory Removal Subtotal	0	CU. YD.	\$0.00 \$	- \$		N/A		
8.0.0	DEMOLITION/REMOVAL SITE IMPROVEMENTS								
	Office/shop/maintenace and other ancillary buildings Equipment to be decommisioned (e.g., weigh scales, buiking/solidification pits,	0	Lump Sum	\$0 \$	-		N/A		
8.2.0	collection pits/sumps, piping, etc)	1	Lump Sum	\$25,000 \$	25,000		Engineer's Estimate		
	Site Utilities Demolition/Removal Site Improvements Subtotal	1	Lump Sum	\$10,000 \$	10,000 \$	35,000	Engineer's Estimate		
	REPLACE/REBUILD SITE ACCESS CONTROLS				Ý	22,200			
9.1.0		0	Lin. FT.	\$0 \$	- 40,000		N/A Engineeris Estimate		
9.2.0 9.3.0	Gates Access barriers	2	Lump Sum Lump Sum	\$20,000 \$ \$5,000 \$	10,000		Engineer's Estimate Engineer's Estimate		
9.4.0	20' Wide Perimeter Access road	1,000	LF	\$150 \$	150,000	300.00-	Engineer's Estimate		
	Replace/Rebuild Site Access Controls Subtotal BORROW AREA RECLAMATION		1		Ş	200,000			
10.1.0	Regrade and site prep	5	ACRE	\$7,000 \$	35,000		Engineer's Estimate		
10.2.0	Soil, On-site (excavate, transport, place, compact)	0	CU.YD.	\$0.00 \$			N/A		
	Soil, Off-site (excavate, transport, place, compact) Seeding and mulching	0 5	CU. YD. ACRE	\$0.00 \$ \$4,000 \$	- 20,000		N/A Engineer's Estimate		
10.5.0	Fertilizer	5	ACRE	\$750 \$			Engineer's Estimate		
	Borrow Area Reclamation Subtotal			Total Closure Cost	s subtotal \$	58,750 2,509,145			
	MISCELLANEOUS								
11.1.1	Administration and Contingency Misc. Subtotal	1	LS	\$250,915 \$	250,915	250,915	Approximately 10% of Total Closure Cost		

	OWNER: Arkansas Kraft Division		PERMIT NO.	0284-53N		AFIN: 15-00001	
	OPERATOR: Green Bay Packaging Inc			Brad N. Fureigh, I			DATE: June 4, 2025
	TOTAL PERMITTED WASTE DISPOSAL ACRES: ±100						
	TOTAL PERMITTED ACRES CERTIFIED CLOSED: ±69.2						
۵NI	OFILL POST-CLOSURE CARE - ANNUAL COST	FSTIMA		RSHEFT	Per	mit: 0284-	S3N AFIN: 15-00001
TEM					1		
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	\$4,500	\$ 4,500		Engineer's Estimate
.2.0	Topographic and Boundary Survey (annual, final, and corrective action, if required)			\$3,500			Engineer's Estimate
L.3.0	Corrective Action Engineering Services (Construction Oversight, Testing,	1	Lump Sum				
	Reporting, Certification) Professional Services Annual Subtotal	1	Lump Sum	\$60,000	\$ 60,000	\$ 68,000	Engineer's Estimate
.0.0	FINAL COVER ROUTINE MAINTENANCE						
2.1.0	Inspect soil cover, vents, flares, drainage letdowns and outfalls, etc	2	EVENT	\$5,000	\$ 10,000		Engineer's Estimate
2.2.0	Mowing/Trimming (100 acres twice per year)	200	ACRE	\$60	\$ 12,000		Engineer's Estimate
.3.0	Clean Drain/Vent Openings	0	EVENT	\$0	\$ -		N/A N/A
	Final Cover Routine Maintenance Annual Subtotal					\$ 22,000	
3.0.0 3.1.0	FINAL COVER REPAIRS Remove/incorporate unacceptable materials (e.g., dead vegetation, solid						
3.1.0	waste) Scarify and prepare surface	10	ACRE ACRE	\$55 \$1,500	\$ 550 \$ 15,000		Engineer's Estimate Engineer's Estimate
8.3.0	Soil, On-Site (excavate, transport, place, compact)	32,267	CU. YD.	\$7.00	\$ 225,867		Engineer's Estimate
3.4.0 3.5.0	Soil, Off-site (excavate, transport, place, compact) Seeding and mulching	10	CU. YD. ACRE	\$0.00 \$2,500	\$ - \$ 25,000		N/A Engineer's Estimate
	Fertilizer Final Cover Repairs Annual Subtotal	10	ACRE	\$500		\$ 271,417	Engineer's Estimate
1.0.0	ACCESS ROADS REPAIRS					✓ ∠/1,41/	
4.1.0	Reshape/regrade subgrade	1,000	SQ. FT.	\$2.30			Engineer's Estimate
4.2.0 4.3.0	Gravel (transport, place, compact) Drainage Structures (e.g., culverts,	37	TON LS	\$45 \$0	\$ 1,667 \$ -		Engineer's Estimate N/A
4.4.0		0	LS	\$0	ş -	\$ 3,967	N/A
5.0.0	SURFACE WATER MANAGEMENT OPERATION AND M	AINTENAN	L CE (0&N	1)		ş 3,907	
5.1.0	Collection system operation and maintenance (ditches, piping conveyances,						
5.2.0	outfalls, sampling points repair/replace) Stormwater storage (sediment pond) operation/repairs	0	Lump Sum Lump Sum	\$0 \$0			N/A N/A
5.3.0	Sample collection Sample analysis and reporting	0	EVENT EVENT	\$0 \$0			N/A N/A
5.4.0	Surface Water Management O&M Annual Subtotal	U	EVENI		3 .	\$-	N/A
5.0.0	LEACHATE COLLECTION SYSTEM O&M						Γ
	Generation Rate = 35,000,000 gal/yr. Collection operation/maintenance (pump, piping,						
6.1.0 6.2.0	storageoperation/repair/replace) Leachate loading, off-loading and off-site transportation	1	YEAR EVENT	\$3,500 \$0.00			Engineer's Estimate N/A
6.3.0	Leachate Treatment/Disposal	0	GAL.	\$0.000			N/A
6.4.0 6.5.0	Additional/upgrades for piping, pumps and storage Leachate sample collection	0	Lump Sum YEAR	\$0 \$0			N/A N/A
6.6.0	Leachate sample analysis and reporting	1	YEAR	\$3,500			Engineer's Estimate
7.0.0	Leachate Collection System 0&M Annual Subtotal GROUNDWATER MONITORING SYSTEM 0&M					\$ 7,000	
.0.0	Number of Wells in Approved System = 11						
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 7.4.0	Well Replacement Sample collection (2 events per year)	1 2	LS EVENT	\$1,100 \$5,300			Engineer's Estimate Engineer's Estimate
7.5.0	Sample analysis and reporting (2 events per year) Groundwater Monitoring System O&M Annual Subtotal	2	EVENT	\$14,500	\$ 29,000	\$ 43,150	Engineer's Estimate
B.O.O	GAS MONITORING SYSTEM O&M					, 43,130	
8.1.0	Number of Gas Monitoring Probes/Wells		EV/21/2	40.0			N/A
B.3.0	Methane monitoring of probes/wells (4 per year) Methane monitoring at site boundary and structures (4 per year)	0	EVENT EVENT	\$2,300 \$1,700	\$ -		N/A N/A
	Sample analysis and reporting Gas Monitoring System O&M Annual Subtotal	0	EVENT	\$550		\$ -	N/A
9.0.0	GAS EXTRACTION SYSTEM O&M					, -	
9.1.0	Passive System						
	Passive well head flare maintenance Active System	0	EACH	\$0	\$ -		N/A
9.2.1		0	EACH EACH	\$0 \$0			N/A N/A
9.2.2	Ancillary gas equipment repair/replacement (piping, blowers, condensate						
	collection) Gas Extraction System O&M Annual Subtotal	0	Lump Sum	\$0	\$ -	\$ -	N/A
0.0.0	CORRECTIVE ACTION EVALUATION AND IMPLEMENT	ATION					
0.1.0	Resurvey monitoring well reference points and site benchmarks (prorate for annual expenses)	1	EACH	\$2,500	\$ 2,500		Engineer's Estimate
0.2.0							
0.3.0	Remove sediments from stormwater basin(s) (prorate for annual expenses) Groundwater exceedances statistical evaluation	1	EACH EACH	\$4,000 \$5,000			Engineer's Estimate Engineer's Estimate
0.4.0	Groundwater alternate source determination) (prorate for annual expenses)	1	EACH	\$7,500			Engineer's Estimate
0.5.0	Groundwater compliance monitoring (prorate for annual expense)	1	EACH	\$3,000			Engineer's Estimate
LO.6.0	Other:		EACH	7	s -		N/A
	Corrective Action Evaluation and Implementation Annual Subtotal					\$ 52,000	
1.0.0	Total Post-Closure Care Annual Cost Subtotal MISCELLANEOUS					\$ 467,533	
	Administration and Contingency				\$ 46,753		Approximately 10% of Total Post Closure Cost
	Misc. Subtotal TOTAL ESTIMATED ANNUAL POST-CLOSURE CARE COST					\$ 46,753 \$ 514,287	
	ESTIMATED 2 YEAR POST-CLOSURE CARE PERIOD	2 x "Total Estim	ated Annual	Post-Closure Care		\$ 1,028,573	
	CERTIFICATE OF INSURANCE (COI) - ADJUSTED TOTAL	20% of Total Post-Closure Care Cost				\$ 205,715	