



# Texas Commission on Environmental Quality Waste Permits Division Correspondence Cover Sheet

Date: 12/03/2024

Facility Name: City of Stephenville Landfill

Permit or Registration No.: 664

Nature of Correspondence:

Initial/New

Response/Revision to TCEQ Tracking No.:  
28474610 (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

**Table 1 - Municipal Solid Waste Correspondence**

Applications	Reports and Notifications
<input type="checkbox"/> New Notice of Intent	<input type="checkbox"/> Alternative Daily Cover Report
<input type="checkbox"/> Notice of Intent Revision	<input type="checkbox"/> Closure Report
<input type="checkbox"/> New Permit (including Subchapter T)	<input type="checkbox"/> Compost Report
<input type="checkbox"/> New Registration (including Subchapter T)	<input type="checkbox"/> Groundwater Alternate Source Demonstration
<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Groundwater Corrective Action
<input type="checkbox"/> Minor Amendment	<input type="checkbox"/> Groundwater Monitoring Report
<input checked="" type="checkbox"/> Limited Scope Major Amendment	<input type="checkbox"/> Groundwater Background Evaluation
<input type="checkbox"/> Notice Modification	<input type="checkbox"/> Landfill Gas Corrective Action
<input type="checkbox"/> Non-Notice Modification	<input type="checkbox"/> Landfill Gas Monitoring
<input type="checkbox"/> Transfer/Name Change Modification	<input type="checkbox"/> Liner Evaluation Report
<input type="checkbox"/> Temporary Authorization	<input type="checkbox"/> Soil Boring Plan
<input type="checkbox"/> Voluntary Revocation	<input type="checkbox"/> Special Waste Request
<input type="checkbox"/> Subchapter T Disturbance Non-Enclosed Structure	<input type="checkbox"/> Other:
<input type="checkbox"/> Other:	

**Table 2 - Industrial & Hazardous Waste Correspondence**

Applications	Reports and Responses
<input type="checkbox"/> New	<input type="checkbox"/> Annual/Biennial Site Activity Report
<input type="checkbox"/> Renewal	<input type="checkbox"/> CPT Plan/Result
<input type="checkbox"/> Post-Closure Order	<input type="checkbox"/> Closure Certification/Report
<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Construction Certification/Report
<input type="checkbox"/> Minor Amendment	<input type="checkbox"/> CPT Plan/Result
<input type="checkbox"/> CCR Registration	<input type="checkbox"/> Extension Request
<input type="checkbox"/> CCR Registration Major Amendment	<input type="checkbox"/> Groundwater Monitoring Report
<input type="checkbox"/> CCR Registration Minor Amendment	<input type="checkbox"/> Interim Status Change
<input type="checkbox"/> Class 3 Modification	<input type="checkbox"/> Interim Status Closure Plan
<input type="checkbox"/> Class 2 Modification	<input type="checkbox"/> Soil Core Monitoring Report
<input type="checkbox"/> Class 1 ED Modification	<input type="checkbox"/> Treatability Study
<input type="checkbox"/> Class 1 Modification	<input type="checkbox"/> Trial Burn Plan/Result
<input type="checkbox"/> Endorsement	<input type="checkbox"/> Unsaturated Zone Monitoring Report
<input type="checkbox"/> Temporary Authorization	<input type="checkbox"/> Waste Minimization Report
<input type="checkbox"/> Voluntary Revocation	<input type="checkbox"/> Other:
<input type="checkbox"/> 335.6 Notification	
<input type="checkbox"/> Other:	



**BIGGS & MATHEWS ENVIRONMENTAL, INC**  
TBPE No. F-256 TBPG No. 50222

December 03, 2024

Ms. Charly Fritz, Deputy Director  
Ms. Megan Henson, Manager  
Office of Waste, Waste Permits Division  
Texas Commission on Environmental Quality  
P. O. Box 13087  
Austin, Texas 78711-3087

Re: City of Stephenville – Erath County  
Municipal Solid Waste (MSW) – MSW Permit No. 664  
Type IV Permit Application – Addendum 1 to NOD 2 Response  
Communication Tracking No. 28474610, RN102214566/CN600627814

Dear Ms. Fritz and Henson:

This Addendum 1 to the NOD 2 response dated May 8, 2024, is submitted on behalf of City of Stephenville for the Type IV Limited Scope Permit Amendment Application submitted March 31, 2023. Below is a list of changes included with this addendum.

- Page III-5A, Site Development Plan – The last paragraph was revised to state the following:
  - “During the development of cells over the Pre-Subtitle D area, a geotechnical engineer shall inspect and test the cell area for suitable clay thickness and permeability. Soils shall meet the requirements for constructed liners in accordance with Attachment 10, Section II (C) – Constructed Soil Liners, of the approved SLQCP.”
- Page I-2, Supplemental Technical Report – The fifth paragraph was revised to state the correct units, tons.
- Page III-15-A-2, Appendix III-15-A – Containment/Diversion Berm Design – Berm calculations were revised to provide for one-foot of freeboard.
- Drawing 8.1, Attachment 8 – Cost Estimate for Closure and Post Closure Care – Notes 4 and 5 were added to describe the development of gas monitoring probes.
- Page 12-4-5, Appendix 12-4 – Final Cover Quality Control Plan – Sections 3.1 through 3.3 were revised to correct section references to Section 3.8.1, 3.8.3 and 5.

Ms. Fritz and Henson  
December 03, 2024  
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Sincerely,

BIGGS & MATHEWS ENVIRONMENTAL  
TBPE No. F-256 ♦ TBPG No. 50222



Felipe A. Wescoup, P.E.  
Senior Engineer

Attachments: City of Stephenville Limited Scope Permit Amendment – Addendum 1 to NOD 2

cc: Mr. Nick Williams, P.E., Director of Public Works, City of Stephenville  
Mr. Doug Svien, Mayor, City of Stephenville



**Texas Commission on Environmental Quality**  
**Part I Application Form for New Permit, Permit**  
**Amendment, or Registration for a**  
**Municipal Solid Waste Facility**

**Application Tracking Information**

Facility Name: City of Stephenville Landfill  
 Permittee or Registrant Name: City of Stephenville  
 MSW Authorization Number: 664  
 Initial Submission Date: 03/31/2023  
 Revision Date: 12/03/2024

Instructions for completing this Part I Application Form are provided in [TCEQ 00650-instr](#)<sup>1</sup>. Include a [Core Data Form \(TCEQ 10400\)](#)<sup>2</sup> with the application for the facility owner, and another Core Data Form for the operator if different from the owner. If you have questions, contact the Municipal Solid Waste Permits Section by email to [mswper@tceq.texas.gov](mailto:mswper@tceq.texas.gov), or by phone at 512-239-2335.

**Application Data**

<b>1. Submission Type</b>	
<input type="checkbox"/> Initial Submission	<input checked="" type="checkbox"/> Notice of Deficiency (NOD) Response

<b>2. Authorization Type</b>	
<input checked="" type="checkbox"/> Permit	<input type="checkbox"/> Registration

<b>3. Application Type</b>	
<input type="checkbox"/> New Permit	
<input type="checkbox"/> Permit Major Amendment	<input checked="" type="checkbox"/> Permit Limited Scope Major Amendment
<input type="checkbox"/> New Registration	

<sup>1</sup> [www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/00650-instr.pdf](http://www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/00650-instr.pdf)  
<sup>2</sup> [www.tceq.texas.gov/goto/coredata](http://www.tceq.texas.gov/goto/coredata)

**Signature Page**

**Site Operator or Authorized Signatory**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Nick Williams, PE, CFM Title: Director of Public Works

Email Address: nwilliams@stephenvilletx.gov

Signature: [Handwritten Signature] Date: 12/03/2024

**Operator or Principal Executive Officer Designation of Authorized Signatory**

To be completed by the operator if the application is signed by an authorized representative for the operator.

I hereby designate \_\_\_\_\_ as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Operator or Principal Executive Officer Name: \_\_\_\_\_

Email Address: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Notary**

SUBSCRIBED AND SWORN to before me by the said Nick Williams

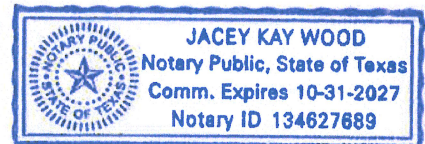
On this 3rd day of December, 2024

My commission expires on the 31 day of October, 2027

[Handwritten Signature]

Notary Public in and for

Erath County, Texas



Note: Application Must Bear Signature & Seal of Notary Public

**CITY OF STEPHENVILLE LANDFILL  
ERATH COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 664**

**LIMITED SCOPE PERMIT AMENDMENT APPLICATION**

**PART I  
SITE AND APPLICANT INFORMATION**

**SUPPLEMENTARY TECHNICAL REPORT**

Prepared for

**CITY OF STEPHENVILLE**

March 2023  
Revised August 2023  
Revised May 2024  
Revised December 2024



**Biggs & Mathews Environmental, Inc.**  
Firm Registration No. F-256

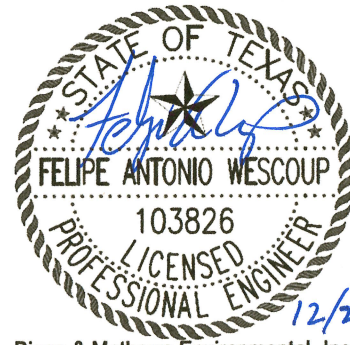
Prepared by

**BIGGS & MATHEWS ENVIRONMENTAL**

1700 Robert Road, Suite 100 ♦ Mansfield, Texas 76063 ♦ 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS  
FIRM REGISTRATION NO. 50222



Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256

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**APPENDIX IG – APPOINTMENTS**

Consistent with §305.45(a)(7), the permits and approvals received for the facility are listed as follows:

Approved	Texas Commission on Environmental Quality Municipal Solid Waste Disposal Permit No. MSW 664
Approved	Texas Commission on Environmental Quality Texas Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit, Permit No. TXR05FG05

## 1.2 Facility Information

This permit amendment application provides an unchanged permit boundary of 100 acres, a decreased maximum final contour elevation of 1516.0 feet msl, an unchanged elevation of deepest excavation of 1437.0 feet msl, and a landfill footprint of 65.5 acres.

Located between waste disposal areas and the permit boundary are entrance facilities, access roads, and surface water drainage facilities. There are no drainage, pipeline, or utility easements that will affect solid waste unloading, storage, disposal, or processing operations.

In accordance with §330.141(a) and §330.543, solid waste unloading, storage, disposal, and processing operations will not occur within any easement, buffer zone, or right-of-way that crosses the site. The distance from the permit boundary to all solid waste unloading, storage, disposal, and processing operations meet the minimum buffer zone distance of 50 feet.

The landfill airspace reclamation will result in a total waste disposal capacity of approximately 2,600,000 cubic yards of waste and daily cover. Based on the October 2022 aerial topography, there is approximately 800,000 cy of Type IV waste and daily cover in place.

The City of Stephenville Landfill receives approximately 22,000 tons annually (approximately 85 tons per day). The waste acceptance rate will vary over the life of the facility depending on the market conditions. The City of Stephenville anticipates the maximum rate of waste disposal to be approximately 70,500 tons per year (approximately 272 tons per day). Based on the anticipated waste acceptance rate, the facility will have an approximate site life of 34 years, as presented in Part III, Site Development Plan Appendix IIIA – Site Life Calculations.

The following table provides a summary of the current and the proposed conditions for Permit No. MSW 664:



**CITY OF STEPHENVILLE  
CITY OF STEPHENVILLE LANDFILL  
ERATH COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 664**

**PART III  
SITE DEVELOPMENT PLAN**

Prepared for

**City of Stephenville**

March 2023  
Revised August 2023  
Revised May 2024  
Revised December 2024



**Biggs & Mathews Environmental, Inc.**  
Firm Registration No. F-256

Prepared by

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FIRM REGISTRATION No. F-256

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FIRM REGISTRATION No. 50222

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- Attachment 8 Cost Estimates for Closure and Postclosure Care**
- Attachment 9 *Not Used***
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- Attachment 11 *Not Used***
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- Attachment 14 Landfill Gas Management Plan**
- Attachment 15 Leachate and Contaminated Water Plan**



Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256

**CITY OF STEPHENVILLE  
CITY OF STEPHENVILLE LANDFILL  
ERATH COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 664**

**LIMITED SCOPE PERMIT AMENDMENT**

**PART III  
SITE DEVELOPMENT PLAN  
NARRATIVE**

Prepared for

**City of Stephenville**

March 2023  
Revised August 2023  
Revised May 2024  
Revised December 2024



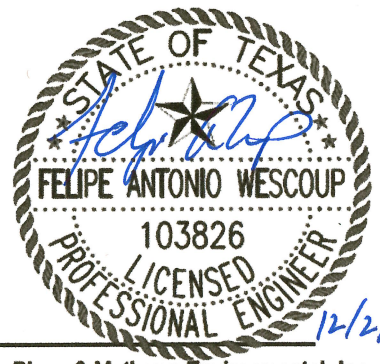
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Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256

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**APPENDIX IIIA – Site Life Calculations**  
**APPENDIX IIIB – Historical Information**

detailed on the Plan of Final Cover Evaluation Locations. Refer to Appendix IIIB – Historical Information for the existing liner and final cover descriptions and locations.

During the development of cells over the Pre-Subtitle D area, a geotechnical engineer shall inspect and test the cell area for suitable clay thickness and permeability. Soils shall meet the requirements for constructed liners in accordance with Attachment 10, Section II, C, 2 – Constructed Soil Liners, of the approved SLQCP.

**CITY OF STEPHENVILLE LANDFILL  
ERATH COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 664**

**LIMITED SCOPE PERMIT AMENDMENT APPLICATION**

**PART III – SITE DEVELOPMENT PLAN  
ATTACHMENT 8  
COST ESTIMATE FOR CLOSURE AND POST CLOSURE CARE**

Prepared for

**CITY OF STEPHENVILLE**

March 2023  
Revised August 2023  
Revised December 2024



Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256

Prepared by

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TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS  
FIRM REGISTRATION NO. 50222

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## APPENDIX 8-1

Closure Cost Estimate Calculations

## APPENDIX 8-2

Post Closure Care Cost Estimate Calculations

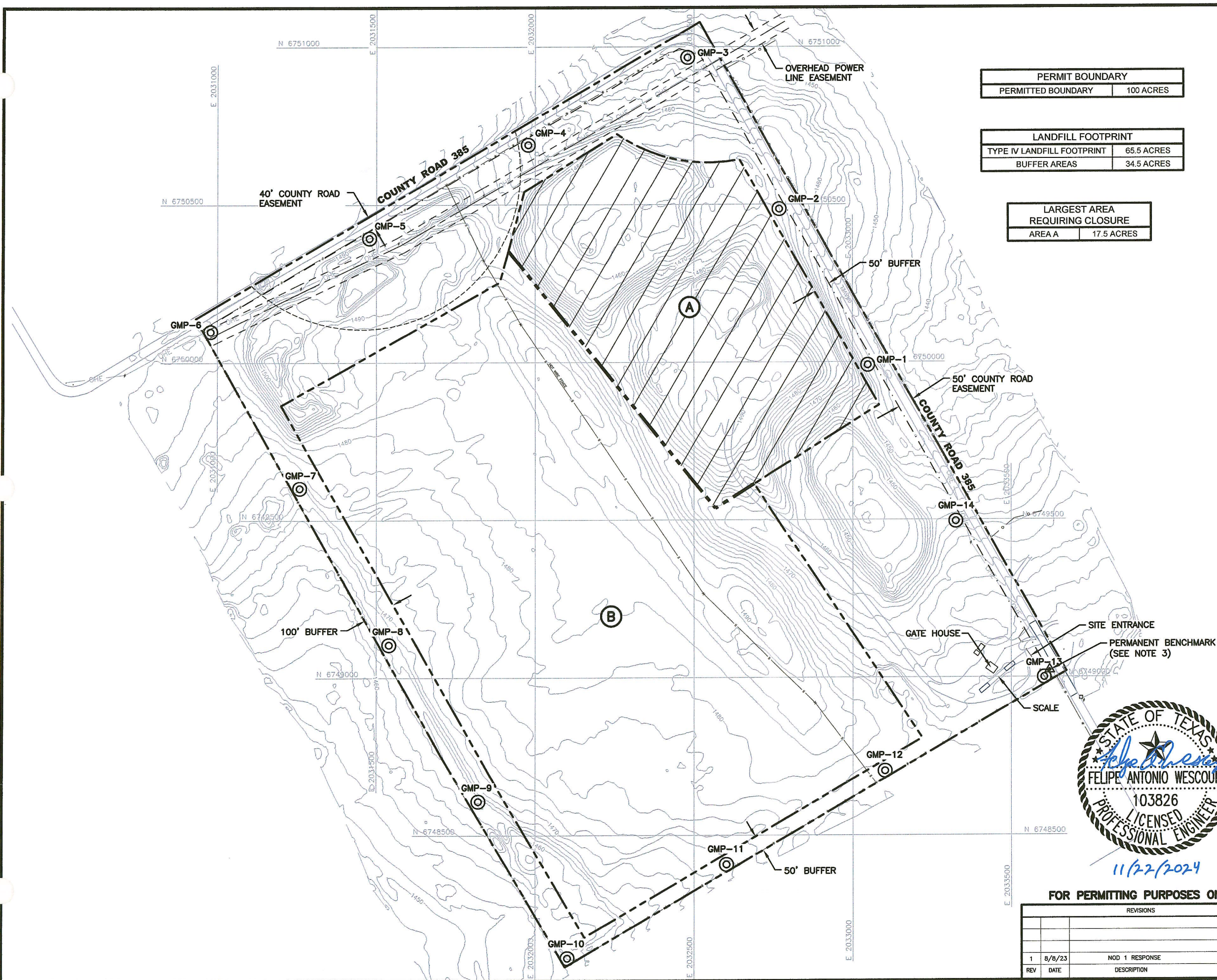
## APPENDIX 8-3

Evidence of Financial Assurance



Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256

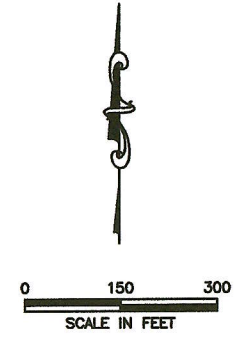
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PERMIT BOUNDARY	
PERMITTED BOUNDARY	100 ACRES

LANDFILL FOOTPRINT	
TYPE IV LANDFILL FOOTPRINT	65.5 ACRES
BUFFER AREAS	34.5 ACRES

LARGEST AREA REQUIRING CLOSURE	
AREA A	17.5 ACRES



- LEGEND**
- PERMIT BOUNDARY
  - TYPE IV LANDFILL FOOTPRINT
  - N 675000 STATE PLANE GRID
  - 1480 EXISTING CONTOUR
  - OHE OVERHEAD ELECTRICAL EASEMENT
  - ROADWAY EASEMENT
  - ▲ PERMANENT BENCHMARK
  - Ⓐ AREA
  - ⊙ PROPOSED LANDFILL GAS PROBE

- NOTES:**
- PROPERTY LINE AND PERMIT BOUNDARY INFORMATION PROVIDED BY BRITAIN & CRAWFORD, OCTOBER 6, 2022.
  - EXISTING GRADES COMPILED FROM DRONE TOPOGRAPHIC DATA COLLECTED BY BIGGS AND MATHEWS ENVIRONMENTAL ON OCTOBER 25, 2022..
  - PERMANENT BENCHMARK:  
N: 6749021.981  
E: 2033620.055  
ELEV: 1477.54 FT-MSL
  - GMP-1 THROUGH GMP-4 WILL BE INSTALLED DURING ONGOING FILL OPERATIONS PROGRESS IN AREA A.
  - GMP-5 THROUGH GMP-14 WILL BE INSTALLED AS FILL OPERATIONS PROGRESS IN AREA B.



11/22/2024

FOR PERMITTING PURPOSES ONLY

REVISIONS			
REV	DATE	DESCRIPTION	DWN BY
1	8/8/23	NOD 1 RESPONSE	BBB

<b>LARGEST AREA REQUIRING CLOSURE</b>	
CITY OF STEPHENVILLE CITY OF STEPHENVILLE LANDFILL LIMITED SCOPE AMENDMENT	
<b>BME</b>	<b>BIGGS &amp; MATHEWS ENVIRONMENTAL</b> 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
	DRAWING <b>8.1</b>

TBPE FIRM NO. F-256
TBPG FIRM NO. 50222



**CITY OF STEPHENVILLE LANDFILL  
ERATH COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 664**

**LIMITED SCOPE PERMIT AMENDMENT APPLICATION**

**PART III – SITE DEVELOPMENT PLAN  
ATTACHMENT 12 – FINAL CLOSURE PLAN**

**APPENDIX 12-4  
FINAL COVER QUALITY CONTROL PLAN**

Prepared for

**CITY OF STEPHENVILLE**

March 2023  
Revised August 2023  
Revised December 2024



Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256

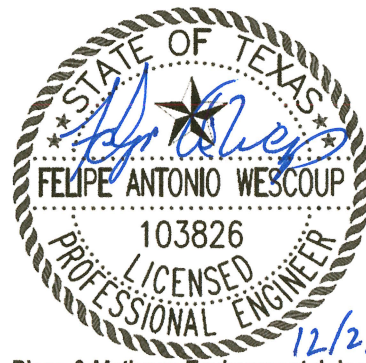
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FIRM REGISTRATION No. 50222



Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256  
30 TAC §330.453

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### 3 INFILTRATION LAYER

30 TAC §330.453

#### 3.1 General

The infiltration layer consists of an 18-inch-thick layer of compacted, relatively homogeneous, cohesive material. The CQA monitor shall provide continuous on-site observation during infiltration layer placement, processing, compaction, and testing. The GP shall make sufficient site visits during infiltration layer construction to document the construction activities, testing, and thickness verification in the Final Cover System Report, in accordance with Section 5.

#### 3.2 Materials

Infiltration layer material shall consist of soil that is free from debris, rubbish, frozen materials, foreign objects, and organic material. The required infiltration layer material properties are summarized in the table below.

**Table 12-4-2  
City of Stephenville Landfill  
Infiltration Layer Material Properties**

Test	Standard	Required Property
Plasticity Index	ASTM D 4318	15 or greater
Liquid Limit	ASTM D 4318	30 or greater
Percent Passing No. 200 Mesh Sieve	ASTM D 1140	30 or greater
Coefficient of Permeability	ASTM D 5084 or COE EM 1110-2-1906 Appendix VII	Less than or equal to $1 \times 10^{-7}$ cm/sec

Preconstruction testing procedures and frequencies for infiltration layer materials are listed in Section 3.8.1.

#### 3.3 Subgrade Preparation

Prior to placing infiltration layer material, the subgrade should be proof rolled with heavy, rubber-tired construction equipment to detect soft areas. The GP or CQA monitor must observe the proof-rolling operation. Soft areas should be compacted and then be proof rolled again.

The subgrade elevations shall be verified in accordance with the requirements of Section 3.8.3 prior to the placement of the infiltration layer.

**CITY OF STEPHENVILLE LANDFILL  
ERATH COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 644**

**LIMITED SCOPE PERMIT AMENDMENT APPLICATION**

**PART III – FACILITY INVESTIGATION AND DESIGN  
ATTACHMENT 15  
CONTAMINATED WATER MANAGEMENT PLAN**

Prepared for

**CITY OF STEPHENVILLE**

March 2023  
Revised August 2023  
Revised December 2024



**Biggs & Mathews Environmental, Inc.**  
Firm Registration No. F-256

Prepared by

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30 TAC §§330.65(c), 330.177, 330.207, 330.227, 330.331(d), 330.337

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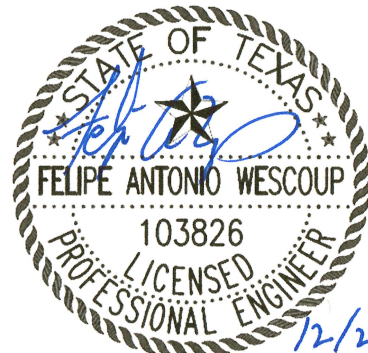
## APPENDIX III-15-A

Containment/Diversion Berm Design



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**CITY OF STEPHENVILLE LANDFILL**  
**APPENDIX III-15-A**  
**CONTAINMENT/DIVERSION BERM DESIGN**



Biggs & Mathews Environmental, Inc.  
Firm Registration No. F-256

Includes pages III-15-A-1 through III-15-A-2

# Stephenville Landfill Containment Berm Design

**Required:** Size containment berms to contain contaminated water around the working face.

**References:** 1) Texas Department of Transportation, Hydraulic Design Manual, Revised May 2014.

Note: The *Hydraulic Design Manual*, Revised September 2019, uses a different equation to calculate rainfall intensity which is not consistent with Reference 2.

2) NOAA Atlas 14, Precipitation-Frequency Atlas of the United States, Volume 11 Version 2.0: Texas, 2018.

**Solution:** Determine the storage volume required for the 25-year, 24-hour rainfall event using the NRCS Curve Number Loss Model.

$$P_e = \frac{(P - I_a)^2}{(P - I_a) + S} \quad (\text{Ref. 1})$$

where:  $P = 7.2$  in total depth of rainfall, Ref. 2  
 $S = z(100/\text{CN} - 1)$  potential maximum depth of water retained in the watershed (in)  
 $z = 10$  unitless  $z = 10$  for English units  
 $\text{CN} = 87$  unitless See page C1-C-7, Attachment C

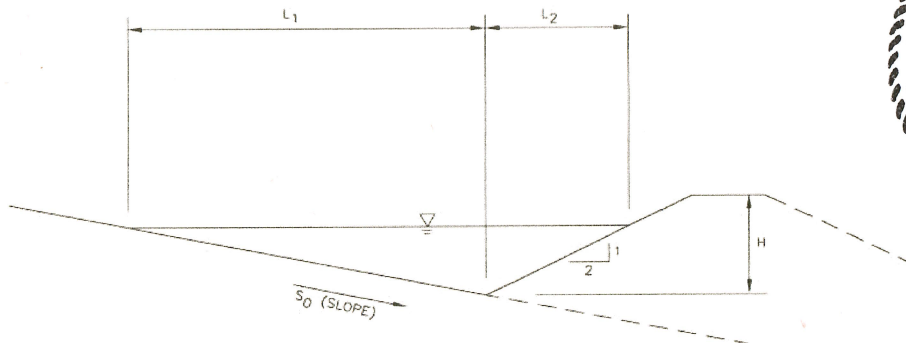
$$S = 1.494 \text{ in}$$

$$I_a = 0.2 S = \text{initial abstraction before ponding (in)}$$

$$I_a = 0.299 \text{ in}$$

$$P_e = 5.673 \text{ in} \quad \text{accumulated excess rainfall (in)}$$

Size the storage area from the following figure:



$$A_s = (L_1 + L_2)H/2 \quad \text{Storage Area} = W(L_1 + L_2)$$

where:  $A_s =$  cross section area (sf)  $W =$  storage width (ft)

$$L_1 = H/S_o$$

$$L_2 = 2H$$

Drainage area ac	Required Volume cf	$H_{req}$ ft	$H$ ft	$S_o$ ft/ft	$L_1$ ft	$L_2$ ft	$W$ ft	$A_s$ sf	$V_s$ Provided cf
0.5	10,296	1.99	2.99	0.02	149	3.98	100	229.5	22,945
1	20,592	2.81	3.81	0.02	191	5.63	100	374.5	37,445
1.5	30,889	3.45	4.45	0.02	222	6.89	100	509.7	50,967

