



## **BIGGS & MATHEWS ENVIRONMENTAL**

*Consulting Engineers ♦ Hydrogeologists*

Mansfield ♦ Wichita Falls

September 4, 2013

Bobbie H. Rogans, PAR Team  
Business & Program Services Section  
Waste Permits Division  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Re: New Boston Landfill, Bowie County, Texas  
MSW Permit No. 576C  
Response to Administrative Review  
CN603572132; RN102594892

Dear Ms. Rogans:

This response to your comment letter, addressed to Mr. Donald J. Smith, Texoma Market Area President, Waste Management of Texas, Inc., dated August 7, 2013, is submitted on behalf of Waste Management of Texas, Inc. The permit application for the New Boston Landfill has been revised as appropriate and one original and three copies are enclosed with this letter. Our responses to the Texas Commission on Environmental Quality (TCEQ) staff comments are presented below in the order received.

1. Please complete and resubmit the required TCEQ Core Data Form, consistent with the Customer name and number provided. Only one Customer Name should be associated with your permit application and one Customer Number, please correct this error to reflect the Customer Number that should be provided per applicant, also list all TCEQ Programs and ID Numbers.

***RESPONSE: The TCEQ Core Data Form has been resubmitted with Customer Number 603572132 which is consistent with the regulated entity name (New Boston Landfill) associated with the permit application and affiliated with Waste Management of Texas, Inc., the applicant and operator. As requested, TCEQ Programs and ID numbers have been identified in Section 39 of the TCEQ Core Data Form.***

2. Please revise and resubmit the adjacent landowner's list to identify the Name of the Adjacent Landowner listed as One Ninety-eight (198) on the Adjacent Landowner's Map, or revise the map.

***RESPONSE: As requested, the Adjacent Landowner's Map has been revised to replace the reference to One Ninety-eight (198) with One Sixty-three (163).***

3. Please revise and resubmit corrected Title Pages, removing the previous owner's name (City of New Boston), throughout the application.

**RESPONSE:** *The Title Pages include the names of the landfill (New Boston Landfill) and the applicant and operator (Waste Management of Texas, Inc.). There are no references to the City of New Boston on any Title Pages in the application. The City of New Boston does not have any affiliation with the facility.*

4. The Part I Form shows that Mr. Donald J. Smith signed the property ownership affidavit for Western Waste of Texas, LLC, and the certification sheet for Waste Management of Texas, Inc. It is not clear whether Mr. Smith meets the requirements of 30 TAC §305.44 (relating to Signatories to Applications). In accordance with 30 TAC §330.59(g), please provide documentation that the person signing the application meets the requirements of 30 TAC §305.44. If the authority has been delegated, provide a copy of the document issued by the governing body of the owner or operator authorizing the person that signed the application to act as agent for the owner or operator.

**RESPONSE:** *Mr. Donald J. Smith is President of Western Waste of Texas, LLC and President of Waste Management of Texas, Inc. Refer to the attached affidavit which states that Mr. Smith, as the President of both Western Waste of Texas, LLC and Waste Management of Texas, Inc., is authorized to sign contracts, landfill expansion applications, regulatory filings, and other documents required for these entities to conduct business. Mr. Smith meets the requirements of 30 TAC §305.44 for the application to be signed by a responsible corporate officer. The property owner affidavit has been revised to reflect Mr. Smith's title of President of Western Waste of Texas, LLC. The certification signature page has been revised to reflect Mr. Smith's title of President of Waste Management of Texas, Inc.*

5. In accordance with 30 TAC §330.59(e), please provide a list of all persons having over a 20% ownership in the proposed facility.

**RESPONSE:** *Please refer to Part I, Section 5, Page I-8 of the application. No other person owns more than 20 percent of the facility. A clarification has been added to state that no person has over 20% ownership in Western Waste of Texas, LLC (property owner) or Waste Management of Texas, Inc. (applicant and operator).*

6. Please revise and resubmit the Table of Content page in Volume 4, Attachment E, section E5 to include a current Professional Engineer's Seal.

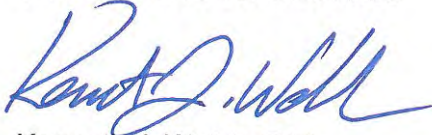
**RESPONSE:** *The Table of Contents page in Volume 4, Attachment E has been resubmitted with a current Professional Engineer's Seal for sections 5.1, 5.2 and 5.3. The content page in Appendix E5 does not require a Professional Engineer's Seal.*

Ms. Bobbie H. Rogans, PAR Team  
September 4, 2013  
Page 3

We trust these responses are satisfactory to you and meet the rules and regulations of the TCEQ.  
If you need additional information, please let us know.

Sincerely,

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



Kenneth J. Welch, P.E.  
Principal Engineer

Attachments: Affidavit  
Part I Form, Pages 1, 2, 9 and 10  
Core Data Form  
Revised Permit Amendment Application (original and 3 copies)

cc: Mr. Donald J. Smith, Waste Management of Texas, Inc.  
Mr. Chuck Rivette, P.E., Waste Management of Texas, Inc.  
Mr. Guy Campbell, Waste Management of Texas, Inc.

THE STATE OF TEXAS

COUNTY OF TRAVIS

AFFIDAVIT

BEFORE ME, the undersigned authority, personally appeared Donald J. Smith, who, being by me duly sworn, deposed as follows:

My name is Donald J. Smith, and I am of sound mind, capable of making this affidavit, and personally acquainted with the facts herein stated. I am responsible for the overall management of Waste Management's landfill and waste hauling operations in Texas and Oklahoma. The New Boston Landfill located in Ferris, Texas is included in my area of responsibility.

I hold the office of President of Western Waste of Texas, LLC, which is the legal entity that owns the real property on which the New Boston Landfill is located. I also hold the office of President of Waste Management of Texas, Inc., which is the legal entity engaged in the landfill and hauling business, among other things, throughout the State of Texas. Waste Management of Texas, Inc. is the operator of the New Boston Landfill. I do not personally own any of the shares of Waste Management of Texas, Inc. or Western Waste of Texas, LLC. The shares of both of these companies are one-hundred percent owned by other Waste Management, Inc. affiliates or subsidiaries.

I have the authority, as the President of both Western Waste of Texas, LLC and Waste Management of Texas, Inc., to sign contracts, landfill expansion applications, regulatory filings, and other documents required for these entities to conduct business.

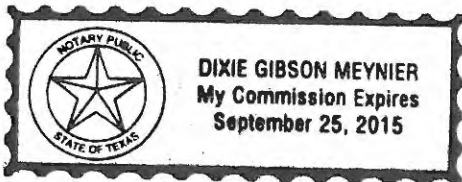
Further affiant sayeth not.

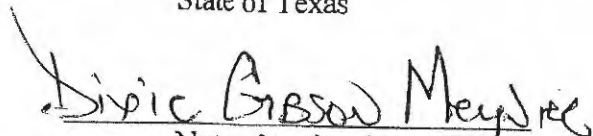
  
AFFIANT

SWORN TO AND SUBSCRIBED before me on this the 4TH day of SEPTEMBER, 2013.



NOTARY PUBLIC  
State of Texas



  
Notary's printed name

**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

Prepared for

**Waste Management of Texas, Inc.**

July 2013

Revised September 2013



9/03/2013

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

**V  
o  
l  
u  
m  
e  
  
1**



**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**VOLUME 1 OF 5**

Prepared for

**Waste Management of Texas, Inc.**

July 2013

Revised September 2013



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

**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**VOLUME 1 OF 5**

**CONTENTS**

---

APPLICATION TABLE OF CONTENTS

TCEQ PART I FORM

TCEQ CORE DATA FORM

PART I        SITE AND APPLICANT INFORMATION

PART II        EXISTING CONDITIONS AND CHARACTER OF THE FACILITY AND  
SURROUNDING AREA





**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C  
APPLICATION TABLE OF CONTENTS**

**CONTENTS**

---

**VOLUME 1**

**TCEQ PART I FORM**

**TCEQ CORE DATA FORM**

**PART I – SITE AND APPLICANT INFORMATION**

1	GENERAL.....	I-1
2	FACILITY LOCATION.....	I-5
3	MAPS.....	I-6
4	PROPERTY OWNER INFORMATION.....	I-7
5	LEGAL AUTHORITY.....	I-8
6	EVIDENCE OF COMPETENCY.....	I-9
7	APPOINTMENTS.....	I-15
8	APPLICATION FEES.....	I-16

APPENDIX IA – GENERAL LOCATION MAPS

APPENDIX IB – LAND OWNERSHIP MAP AND LAND OWNERS LIST

APPENDIX IC – LEGAL DESCRIPTION, PERMIT BOUNDARY

APPENDIX ID – LEGAL AUTHORITY

APPENDIX IE – APPOINTMENTS/AFFIDAVITS

APPENDIX IF – DOCUMENTATION OF APPLICATION FEE PAYMENT

**PART II – EXISTING CONDITIONS AND CHARACTER OF THE FACILITY  
AND SURROUNDING AREA**

1	EXISTING CONDITIONS SUMMARY.....	II-1
2	WASTE ACCEPTANCE PLAN.....	II-4
3	GENERAL LOCATION MAPS.....	II-6
4	FACILITY LAYOUT MAPS.....	II-7
5	GENERAL TOPOGRAPHIC MAP.....	II-8
6	AERIAL PHOTOGRAPH.....	II-9
7	LAND USE MAP.....	II-10



## CONTENTS (CONTINUED)

---

8	IMPACT ON SURROUNDING AREA.....	II-11
9	TRANSPORTATION.....	II-13
10	GENERAL GEOLOGY AND SOILS STATEMENT .....	II-14
11	GROUNDWATER AND SURFACE WATER.....	II-19
12	ABANDONED OIL AND WATER WELLS .....	II-23
13	FLOODPLAINS AND WETLANDS .....	II-24
14	ENDANGERED OR THREATENED SPECIES .....	II-31
15	TEXAS HISTORICAL COMMISSION REVIEW.....	II-32
16	COUNCIL OF GOVERNMENTS AND LOCAL GOVERNMENT REVIEW REQUEST.....	II-33
	APPENDIX IIA – MAPS AND DRAWINGS	
	APPENDIX IIB – LAND USE ANALYSIS	
	APPENDIX IIC – TRANSPORTATION STUDY	
	APPENDIX IID – WETLANDS DOCUMENTATION	
	APPENDIX IIE – ENDANGERED OR THREATENED SPECIES DOCUMENTATION	
	APPENDIX IIF – ARCHAEOLOGICAL SURVEY	
	APPENDIX IIG – TPDES PERMIT	
	APPENDIX IIH – FEDERAL AVIATION ADMINISTRATION DOCUMENTATION	
	APPENDIX III – ARK-TEX COUNCIL OF GOVERNMENTS DOCUMENTATION	
	APPENDIX IIJ – FLOODPLAIN DOCUMENTATION	
	APPENDIX IIK – LOCATION RESTRICTION CERTIFICATIONS	





9/03/2013

## **CONTENTS (CONTINUED)**

---

### **VOLUME 2**

#### **PART III – FACILITY INVESTIGATION AND DESIGN**

##### **ATTACHMENT A – SITE DEVELOPMENT PLAN NARRATIVE**

1 NARRATIVE .....	A-1
-------------------	-----

##### **ATTACHMENT B – GENERAL FACILITY DESIGN**

1 FACILITY ACCESS .....	B-1
2 WASTE MOVEMENT .....	B-2
3 SANITATION .....	B-7
4 WATER POLLUTION CONTROL .....	B-8
5 ENDANGERED SPECIES PROTECTION .....	B-9

##### **APPENDIX B1 – DRAWINGS**

##### **ATTACHMENT C – FACILITY SURFACE WATER DRAINAGE REPORT**

1 NARRATIVE .....	C-1
-------------------	-----

##### **ATTACHMENT C1 – DRAINAGE ANALYSIS AND DESIGN**

1 INTRODUCTION .....	C1-1
2 METHODOLOGY .....	C1-3
3 CURRENT PERMITTED CONDITIONS .....	C1-5
4 POSTDEVELOPMENT CONDITIONS .....	C1-7
5 PROPOSED DRAINAGE SYSTEM DESIGN .....	C1-9
6 EROSION AND SEDIMENTATION CONTROL .....	C1-11
7 CURRENT PERMITTED/POST DEVELOPMENT COMPARISON .....	C1-14
8 CONCLUSIONS .....	C1-16

##### **APPENDIX C1-A – DRAINAGE MAPS AND CURRENT PERMITTED/POSTDEVELOPMENT COMPARISON**

##### **APPENDIX C1-B – CURRENT PERMITTED HYDROLOGIC CALCULATIONS**

##### **APPENDIX C1-C – POSTDEVELOPMENT HYDROLOGIC CALCULATIONS**

##### **APPENDIX C1-D – PERIMETER DRAINAGE SYSTEM DESIGN**

##### **APPENDIX C1-E – FINAL COVER DRAINAGE STRUCTURE DESIGN**

##### **APPENDIX C1-F – INTERMEDIATE COVER EROSION AND SEDIMENTATION CONTROL PLAN**

##### **APPENDIX C1-G – INTERMEDIATE COVER EROSION CONTROL STRUCTURE DESIGN**

## CONTENTS (CONTINUED)

---

### ATTACHMENT C2 – FLOOD CONTROL ANALYSIS

1	NARRATIVE .....	C2-1
2	100-YEAR FLOODPLAIN .....	C2-3
3	CONCLUSIONS.....	C2-7

APPENDIX C2-A – 100-YEAR FLOODPLAIN MAPS

APPENDIX C2-B – CURRENT PERMITTED HEC-HMS & HEC-RAS EVALUATION

APPENDIX C2-C – LETTER OF MAP REVISION

### ATTACHMENT C3 – DRAINAGE SYSTEM PLANS AND DETAILS







9/03/2013

## CONTENTS (CONTINUED)

---

### VOLUME 3

#### ATTACHMENT D – WASTE MANAGEMENT UNIT DESIGN

1 WASTE MANAGEMENT UNIT DESIGN .....	D-1
2 PROCESSING AND/OR STORAGE UNITS .....	D-2
3 LANDFILL UNITS .....	D-4

#### ATTACHMENT D1 – SITE LAYOUT PLANS

#### ATTACHMENT D2 – CROSS SECTIONS

#### ATTACHMENT D3 – CONSTRUCTION DESIGN DETAILS

#### ATTACHMENT D4 – SITE LIFE

#### ATTACHMENT D5 – GEOTECHNICAL DESIGN

1 GEOTECHNICAL TESTING .....	D5-1
2 SUBSURFACE MATERIALS .....	D5-2
3 EARTHWORK.....	D5-5
4 CONSTRUCTION BELOW THE GROUNDWATER TABLE .....	D5-6
5 SETTLEMENT AND HEAVE ANALYSIS.....	D5-8
6 SLOPE STABILITY ANALYSES .....	D5-9
7 LINER CONSTRUCTION .....	D5-13
8 COVER CONSTRUCTION .....	D5-15

#### APPENDIX D5-A – SETTLEMENT/HEAVE ANALYSIS

#### APPENDIX D5-B – SLOPE STABILITY ANALYSES

#### APPENDIX D5-C – DIRECT SHEAR TEST RESULTS

#### ATTACHMENT D6 – LEACHATE AND CONTAMINATED WATER MANAGEMENT PLAN

1 INTRODUCTION .....	D6-1
2 LEACHATE MANAGEMENT .....	D6-2
3 CONTAMINATED WATER MANAGEMENT .....	D6-7
4 GAS CONDENSATE MANAGEMENT .....	D6-8

#### APPENDIX D6-A – LEACHATE COLLECTION SYSTEM DESIGN CALCULATIONS

#### APPENDIX D6-B – LEACHATE GENERATION MODEL

#### APPENDIX D6-C – CONTAINMENT/DIVERSION BERM DESIGN

#### APPENDIX D6-D – SECONDARY CONTAINMENT VOLUME CALCULATIONS



## CONTENTS (CONTINUED)

---

### ATTACHMENT D7 – LINER QUALITY CONTROL PLANS

#### ATTACHMENT D7A – NORTH DISPOSAL AREA LINER QUALITY CONTROL PLAN

1	INTRODUCTION .....	D7A-1
2	LINER SYSTEM.....	D7A-3
3	EARTHWORK.....	D7A-5
4	COMPACTED SOIL LINER .....	D7A-8
5	GEOMEMBRANE LINER.....	D7A-12
6	LEACHATE COLLECTION SYSTEM .....	D7A-20
7	PROTECTIVE COVER .....	D7A-27
8	BALLAST .....	D7A-29
9	DOCUMENTATION .....	D7A-31

APPENDIX D7A-A – HIGHEST MEASURED WATER LEVELS NORTH DISPOSAL AREA

APPENDIX D7A-B – TEMPORARY DEWATERING SYSTEM

APPENDIX D7A-C – BALLAST CALCULATIONS

APPENDIX D7A-D – WASTE-FOR-BALLAST PLACEMENT RECORD

APPENDIX D7A-E – GRI-GM13

#### ATTACHMENT D7B – SOUTH DISPOSAL AREA LINER QUALITY CONTROL PLAN

1	INTRODUCTION .....	D7B-1
2	LINER SYSTEM.....	D7B-3
3	EARTHWORK.....	D7B-4
4	COMPACTED SOIL LINER .....	D7B-7
5	PROTECTIVE COVER .....	D7B-11
6	BALLAST .....	D7B-13
7	DOCUMENTATION .....	D7B-15

APPENDIX D7B-A – HIGHEST MEASURED WATER LEVELS SOUTH DISPOSAL AREA

APPENDIX D7B-B – TEMPORARY DEWATERING SYSTEM

APPENDIX D7B-C – BALLAST CALCULATIONS

APPENDIX D7B-D – WASTE-FOR-BALLAST PLACEMENT RECORD

### ATTACHMENT D8 – FINAL COVER QUALITY CONTROL PLANS

#### ATTACHMENT D8-A – WEST AND NORTH DISPOSAL AREAS FINAL COVER QUALITY CONTROL PLAN

1	INTRODUCTION .....	D8A-1
---	--------------------	-------



## CONTENTS (CONTINUED)

---

2	FINAL COVER SYSTEM .....	D8A-3
3	INTERMEDIATE COVER AND GRADING .....	D8A-6
4	INFILTRATION LAYER.....	D8A-7
5	FLEXIBLE MEMBRANE COVER .....	D8A-11
6	DRAINAGE LAYER .....	D8A-19
7	EROSION LAYER.....	D8A-22
8	DOCUMENTATION .....	D8A-24

APPENDIX D8A-A – GRI GM17

APPENDIX D8A-B – GEOCOMPOSITE TRANSMISSIVITY CALCULATION

### ATTACHMENT D8-B – SOUTH DISPOSAL AREA FINAL COVER QUALITY CONTROL PLAN

1	INTRODUCTION .....	D8B-1
2	FINAL COVER SYSTEM .....	D8B-3
3	INTERMEDIATE COVER AND GRADING.....	D8B-4
4	INFILTRATION LAYER.....	D8B-5
5	EROSION LAYER.....	D8B-9
6	DOCUMENTATION .....	D8B-11



## CONTENTS (CONTINUED)

---

### VOLUME 4

#### ATTACHMENT E – GEOLOGY REPORT

LIST OF TABLES .....	E-v
1 REGIONAL GEOLOGIC/HYDROGEOLOGIC INFORMATION .....	E-1
2 GEOLOGIC PROCESSES .....	E-4
3 REGIONAL AQUIFERS .....	E-7
4 SUBSURFACE INVESTIGATION REPORT .....	E-11
5 GEOTECHNICAL DATA .....	E-19
6 ARID EXEMPTION .....	E-34
7 REFERENCES .....	E-35

APPENDIX E1 – REGIONAL GEOLOGIC/HYDROGEOLOGIC DATA

APPENDIX E2 – SITE EXPLORATION DATA

APPENDIX E3 – SITE GEOLOGIC DATA

APPENDIX E4 – FAULT AND SEISMIC DATA

APPENDIX E5 – LABORATORY TESTS

APPENDIX E6 – SITE HYDROGEOLOGIC DATA

APPENDIX E7 – HISTORICAL GROUNDWATER ANALYTICAL DATA

#### ATTACHMENT F – GROUNDWATER CHARACTERIZATION REPORT

GROUNDWATER MONITORING SYSTEM DESIGN CERTIFICATION .....	F-iii
1 SITE HYDROGEOLOGY .....	F-1
2 GROUNDWATER MONITORING SYSTEM .....	F-16

APPENDIX F1

APPENDIX F2 – GROUNDWATER SAMPLING AND ANALYSIS PLAN – TYPE I

APPENDIX F3 – GROUNDWATER SAMPLING AND ANALYSIS PLAN – TYPE IV





## CONTENTS (CONTINUED)

---

### VOLUME 5

#### ATTACHMENT G – LANDFILL GAS MANAGEMENT PLAN

1	INTRODUCTION .....	G-1
2	SITE CHARACTERISTICS .....	G-3
3	MONITORING .....	G-5
4	ACTION PLAN .....	G-10
5	REMEDIATION PLAN.....	G-12
6	LFG SYSTEM .....	G-13

APPENDIX G1 – LANDFILL GAS MONITORING PROBE LOCATIONS AND DETAILS

APPENDIX G2 – REPORTING AND RECORDING FORMS

APPENDIX G3 – INSTALLATION INFORMATION AND TCEQ PERMIT MODIFICATION APPROVALS – EXISTING LANDFILL GAS MONITORING PROBES

APPENDIX G4 – LANDFILL GAS AND COLLECTION SYSTEM PLAN

APPENDIX G5 – LANDFILL GAS GENERATION MODEL

#### ATTACHMENT H – CLOSURE PLAN

1	INTRODUCTION .....	H-1
2	FINAL COVER SYSTEM .....	H-2
3	CLOSURE PROCEDURES .....	H-5
4	CLOSURE SCHEDULE .....	H-7
5	CLOSURE COST ESTIMATE.....	H-10

APPENDIX H1 – FIGURES

APPENDIX H2 – FINAL COVER SYSTEM PLANS AND DETAILS

#### ATTACHMENT I – POSTCLOSURE PLAN

1	INTRODUCTION .....	I-1
2	POSTCLOSURE CARE ACTIVITIES .....	I-2
3	PERSON RESPONSIBLE FOR CONDUCTING POSTCLOSURE CARE ACTIVITIES ..	I-4
4	POSTCLOSURE LAND USE.....	I-5
5	POSTCLOSURE CARE COST ESTIMATE.....	I-6

#### ATTACHMENT J – COST ESTIMATES FOR CLOSURE AND POSTCLOSURE CARE

	LIST OF TABLES AND FIGURES .....	J-iii
1	INTRODUCTION .....	J-1

## CONTENTS (CONTINUED)

---

2	CLOSURE COST ESTIMATE.....	J-2
3	POSTCLOSURE CARE COST ESTIMATE.....	J-3
4	COST ESTIMATE ADJUSTMENTS .....	J-4
5	FINANCIAL ASSURANCE.....	J-5

APPENDIX J1 – CLOSURE COST ESTIMATE CALCULATIONS  
APPENDIX J2 – POSTCLOSURE CARE COST ESTIMATE CALCULATIONS  
APPENDIX J3 – EVIDENCE OF FINANCIAL ASSURANCE



## CONTENTS (CONTINUED)

---

### PART IV – SITE OPERATING PLAN

LIST OF ACRONYMS .....	IV-v
TABLES AND FIGURES .....	IV-vi
1 INTRODUCTION .....	IV-1
2 RECORDKEEPING REQUIREMENTS .....	IV-3
3 PERSONNEL AND TRAINING .....	IV-7
4 EQUIPMENT .....	IV-16
5 DETECTION AND PREVENTION OF DISPOSAL OF PROHIBITED WASTES .....	IV-20
6 GENERAL INSTRUCTIONS .....	IV-23
7 FIRE PROTECTION PLAN .....	IV-26
8 OPERATIONAL PROCEDURES .....	IV-31
APPENDIX IVA – EXAMPLE LOAD INSPECTION REPORT	
APPENDIX IVB – SPECIAL WASTE ACCEPTANCE PLAN	
APPENDIX IVC – REGULATED ASBESTOS-CONTAINING MATERIAL PLAN	
APPENDIX IVD – ALTERNATIVE DAILY COVER OPERATING PLAN	



9/03/2013





# Texas Commission on Environmental Quality

## Permit or Registration Application for Municipal Solid Waste Facility

### Part I

#### A. General Information

Facility Name:	New Boston Landfill			
Physical or Street Address (if available):	1030 W U.S. Highway 82			
(City) (County)( State)( Zip Code):	New Boston	Bowie	TX	75570-2416
(Area Code) Telephone Number:	903-628-6595			
Charter Number:	22300000			

If the application is submitted on behalf of a corporation, provide the Charter Number as recorded with the Office of the Secretary of State for Texas.

Operator Name <sup>1</sup> :	Waste Management of Texas, Inc.			
Mailing Address:	800 Gessner Road, Suite 1100			
(City) (County)( State)( Zip Code):	Houston	Harris	TX	77024-4257
(Area Code) Telephone Number:	713-647-5542			
(Area Code) FAX Number:	713-647-5549			
Charter Number:	22300000			

If the permittee is the same as the operator, type "Same as Operator".

Permittee Name:	Same as Operator			
Physical or Street Address (if available):				
(City) (County)( State)( Zip Code):				
(Area Code) Telephone Number:				
Charter Number:				

If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent Name:	CT Corporation System			
Mailing Address:	350 North St. Paul St., Ste 2900			
(City) (County)( State)( Zip Code):	Dallas	Dallas	TX	75201-4234
(Area Code) Telephone Number:	214-979-1172			
(Area Code) FAX Number:	214-754-0921			

#### Application Type:

<input checked="" type="checkbox"/>	Permit	<input checked="" type="checkbox"/>	Major Amendment	<input type="checkbox"/>	Minor Amendment
<input type="checkbox"/>	Registration	<input type="checkbox"/>	Modification	<input type="checkbox"/>	Temporary Authorization
		<input checked="" type="checkbox"/>	w/Public Notice		
		<input type="checkbox"/>	w/out Public Notice	<input checked="" type="checkbox"/>	Notice of Deficiency Response

<sup>1</sup> The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].



Facility Classification:

<input checked="" type="checkbox"/>	Type I	<input type="checkbox"/>	Type IV	<input type="checkbox"/>	Type V	<input type="checkbox"/>	Type IX
<input type="checkbox"/>	Type I AE	<input type="checkbox"/>	Type IV AE	<input type="checkbox"/>	Type VI		

Activities covered by this application (check all that apply):

<input checked="" type="checkbox"/>	Storage	<input checked="" type="checkbox"/>	Processing	<input checked="" type="checkbox"/>	Disposal
-------------------------------------	---------	-------------------------------------	------------	-------------------------------------	----------

Waste management units covered by this application (check all that apply):

<input type="checkbox"/>	Containers	<input type="checkbox"/>	Tanks	<input type="checkbox"/>	Surface Impoundments	<input checked="" type="checkbox"/>	Landfills
<input type="checkbox"/>	Incinerators	<input type="checkbox"/>	Composting	<input type="checkbox"/>	Type IV Demonstration Unit	<input type="checkbox"/>	Type IX Energy/Material Recovery
<input checked="" type="checkbox"/>	Other (Specify)	Convenience Center		<input type="checkbox"/>	Other (Specify)		
<input checked="" type="checkbox"/>	Other (Specify)	Truck Wheel Wash		<input type="checkbox"/>	Other (Specify)		
<input checked="" type="checkbox"/>	Other (Specify)	Recyclable Material Staging Area		<input type="checkbox"/>	Other (Specify)		

Is this submittal part of a Consolidated Permit Processing request, in accordance with 30 TAC Chapter 33?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>If yes, state the other TCEQ program authorizations requested.</b>

Provide a brief description of the portion of the facility covered by this application. For amendments, modifications, and temporary authorizations, provide a brief description of the exact changes to the permit or registration conditions and supporting documents referenced by the permit or registration. Also, provide an explanation of why the amendment, modification, or temporary authorization is requested.
A permit amendment application for the New Boston Landfill to expand the facility permit boundary and add two new waste disposal units within the expansion area. The new waste disposal units will add long-term waste disposal capacity for individuals, businesses, and communities in Bowie, Cass, Marion, Morris, Red River, and Titus Counties in Texas, and Miller County in Arkansas.

Does the application contain confidential Material? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---

If yes, cross-reference the confidential material *throughout the application* and submit as a separate document or binder conspicuously marked "CONFIDENTIAL."

Alternative Language Notice Instructions

For certain permit applications, public notice in an alternate language is required. If an elementary school or middle school nearest to the facility offers a bilingual program, notice may be required to be published in an alternative language. The Texas Education Code, upon which the TCEQ alternative language notice requirements are based, trigger a bilingual education program to apply to an entire school district should the requisite alternative language speaking student population exist. However, there may not exist any bilingual students at a particular school within a district which is required to offer the bilingual education program. For this reason, the requirement to publish notice in an alternative language is triggered if the nearest elementary or middle school, as a part of a larger school district, is required to make a bilingual education program available to qualifying students and either the school has students enrolled at such a program on-site, or has students who attend such a program at another location in satisfaction of the school's obligation to provide such a program as a member of a triggered district.

Local Government Official - City:

Name:	Johnny L. Branson			
Title:	Mayor, City of New Boston			
Address:	P.O. Box 5			
(City) (County)( State)( Zip Code):	New Boston	Bowie	TX	75570
(Area Code) Telephone Number:	903-628-5596			

Local Government Official – City Health:

Name:	The City of New Boston does not have a Health Authority.			
Title:				
Address:				
(City) (County)( State)( Zip Code):				
(Area Code) Telephone Number:				

Local Government Official – County:

Name:	Sterling Lacy			
Title:	Bowie County Judge			
Address:	710 James Bowie Drive			
(City) (County)( State)( Zip Code):	New Boston	Bowie	TX	75570
(Area Code) Telephone Number:	903-628-6718			

Local Government Official – County Health:

Name:	Dr. Robert B. Fry Texarkana-Bowie County Family Health Center			
Title:	Health Authority			
Address:	902 W. 12 <sup>th</sup> Street			
(City) (County)( State)( Zip Code):	Texarkana	Bowie	TX	75501
(Area Code) Telephone Number:	903-798-3250			

The Person Responsible for publishing the notice is:

Name:	Mr. Kenneth J. Welch, P.E.			
Title:	Principal Biggs And Mathews Environmental, Inc.			
Address:	1700 Robert Road, Suite 100			
(City) (County)( State)( Zip Code):	Mansfield	Tarrant	TX	76063
(Area Code) Telephone Number:	817-563-1144			
Email:	kwelch@biggsandmathews.com			

**PROPERTY OWNER AFFIDAVIT**

I, Donald J. Smith, President of Western Waste of Texas, LLC  
(property owner)

acknowledge that the State of Texas may hold **Western Waste of Texas, LLC** responsible for the operation, maintenance, and closure and post-closure care of the facility. For a facility where waste will remain after closure, I acknowledge that I have a responsibility to file with the county deed records an affidavit to the public advising that the land will be used for a solid waste facility prior to the time that the facility actually begins operating as a municipal solid waste landfill facility, and to file a final recording upon completion of disposal operations and closure of the landfill units in accordance with Title 30 Texas Administrative Code §330.19, Deed Recordation. I further acknowledge that **Western Waste of Texas, LLC**, and the State of Texas shall have access to the property during the active life and post-closure care period, if required, after closure for the purpose of inspection and maintenance."

  
(Owner Signature)

9-4-13  
(Date)

Signature Page

I, Donald J. Smith, President of Waste Management of Texas, Inc.
(Operator) (Title)

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.

Signature: [Handwritten Signature] Date: 9-4-13

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, [Blank], hereby designate [Blank]
(Print or Type Operator Name) (Print or Type Representative Name)

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.

Not applicable
Printed or Typed Name of Operator or Principal Executive Officer

Signature

SUBSCRIBED AND SWORN to before me by the said DONALD J. SMITH
On this 4TH day of SEPTEMBER, 2013
My commission expires on the 25TH day of 2015

Notary Public in and for HARRIS
HARRIS County, Texas

(Note: Application Must Bear Signature & Seal of Notary Public)



# TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

## SECTION I: General Information

<b>1. Reason for Submission</b> (If other is checked please describe in space provided)			
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application)			
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input checked="" type="checkbox"/> Other Permit Amendment Application	
<b>2. Attachments</b> Describe Any Attachments: (ex. Title V Application, Waste Transporter Application, etc.)			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Municipal Solid Waste Permit Amendment Application	
<b>3. Customer Reference Number (if issued)</b>		<b>4. Regulated Entity Reference Number (if issued)</b>	
CN603572132		RN102594892	
<small>Follow this link to search for CN or RN numbers in Central Registry**</small>			

## SECTION II: Customer Information

<b>5. Effective Date for Customer Information Updates (mm/dd/yyyy)</b>			
<b>6. Customer Role</b> (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check only <u>one</u> of the following:			
<input type="checkbox"/> Owner	<input checked="" type="checkbox"/> Operator	<input type="checkbox"/> Owner & Operator	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Occupational Licensee	<input type="checkbox"/> Responsible Party	<input type="checkbox"/> Voluntary Cleanup Applicant	
<b>7. General Customer Information</b>			
<input type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State)		<input checked="" type="checkbox"/> No Change**	
<b>**If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.</b>			
<b>8. Type of Customer:</b>			
<input type="checkbox"/> City Government	<input type="checkbox"/> County Government	<input type="checkbox"/> Federal Government	<input type="checkbox"/> State Government
<input type="checkbox"/> Other Government	<input type="checkbox"/> General Partnership	<input type="checkbox"/> Limited Partnership	<input type="checkbox"/> Other: _____
<b>9. Customer Legal Name</b> (If an individual, print last name first: ex: Doe, John) <span style="float: right;"><i>If new Customer, enter previous Customer below</i> <b>End Date:</b> _____</span>			
<b>10. Mailing Address:</b>			
City	State	ZIP	ZIP + 4
<b>11. Country Mailing Information</b> (if outside USA)		<b>12. E-Mail Address</b> (if applicable)	
<b>13. Telephone Number</b>		<b>15. Fax Number</b> (if applicable)	
<b>14. Extension or Code</b>		<b>19. TX SOS Filing Number</b> (if applicable)	
<b>16. Federal Tax ID</b> (9 digits)	<b>17. TX State Franchise Tax ID</b> (11 digits)	<b>18. DUNS Number</b> (if applicable)	
<b>20. Number of Employees</b>			<b>21. Independently Owned and Operated?</b>
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher			<input type="checkbox"/> Yes <input type="checkbox"/> No

## SECTION III: Regulated Entity Information

<b>22. General Regulated Entity Information</b> (If "New Regulated Entity" is selected below this form should be accompanied by a permit application)			
<input type="checkbox"/> New Regulated Entity		<input checked="" type="checkbox"/> No Change** (See below)	
<small>**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.</small>			
<b>23. Regulated Entity Name</b> (name of the site where the regulated action is taking place)			
<b>24. Street Address</b>			

of the Regulated Entity: (No P.O. Boxes)	City	State	ZIP	ZIP + 4
25. Mailing Address:	City	State	ZIP	ZIP + 4
26. E-Mail Address:				
27. Telephone Number	28. Extension or Code	29. Fax Number (if applicable)		
30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)	33. Secondary NAICS Code (5 or 6 digits)	
34. What is the Primary Business of this entity? (Please do not repeat the SIC or NAICS description.)				

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:				
36. Nearest City	County	State	Nearest ZIP Code	
37. Latitude (N) In Decimal:	38. Longitude (W) In Decimal:			
Degrees	Minutes	Seconds	Degrees	Minutes

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Industrial Hazardous Waste	<input checked="" type="checkbox"/> Municipal Solid Waste
				MSW 576C
<input checked="" type="checkbox"/> New Source Review – Air	<input type="checkbox"/> OSSF	<input checked="" type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS	<input type="checkbox"/> Sludge
87588		Registration No. 65580		
<input checked="" type="checkbox"/> Stormwater	<input type="checkbox"/> Title V – Air	<input type="checkbox"/> Tires	<input checked="" type="checkbox"/> Used Oil	<input type="checkbox"/> Utilities
TPDES TXR05U153			Registration No. TYU00009	
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

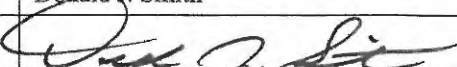
#### SECTION IV: Preparer Information

40. Name:	Kenneth J. Welch , P.E.	41. Title:	Principal
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
817-563-1144		817-563-1224	kwelch@BiggsAndMathews.com

#### SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Waste Management of Texas, Inc.	Job Title:	President
Name (In Print):	Donald J. Smith	Phone:	713-647-5542
Signature:		Date:	9-4-13



**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**PART I  
SITE AND APPLICANT INFORMATION**

Prepared for  
**Waste Management of Texas, Inc.**

July 2013

Revised September 2013



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



## CONTENTS

<b>1</b>	<b>GENERAL</b> .....	<b>I-1</b>
1.1	Permit History .....	I-1
1.2	Supplementary Technical Report.....	I-2
<b>2</b>	<b>FACILITY LOCATION</b> .....	<b>I-5</b>
2.1	Location Description .....	I-5
2.2	Access Routes .....	I-5
2.3	Geographic Coordinates .....	I-5
<b>3</b>	<b>MAPS</b> .....	<b>I-6</b>
3.1	General Location Maps .....	I-6
3.2	Land Ownership Map and Land Owners List.....	I-6
<b>4</b>	<b>PROPERTY OWNER INFORMATION</b> .....	<b>I-7</b>
4.1	Legal Description .....	I-7
4.2	Drainage, Pipeline, and Utility Easements.....	I-7
4.3	Property Owner Affidavit .....	I-7
<b>5</b>	<b>LEGAL AUTHORITY</b> .....	<b>I-8</b>
<b>6</b>	<b>EVIDENCE OF COMPETENCY</b> .....	<b>I-9</b>
6.1	Solid Waste Sites.....	I-9
6.1.1	Texas Facilities.....	I-9
6.1.2	Other Facilities.....	I-11
6.2	Management and Personnel .....	I-11
6.3	Equipment Dedicated to the New Boston Landfill.....	I-12
<b>7</b>	<b>APPOINTMENTS</b> .....	<b>I-15</b>
<b>8</b>	<b>APPLICATION FEES</b> .....	<b>I-16</b>

**APPENDIX IA – GENERAL LOCATION MAPS**

**APPENDIX IB – LAND OWNERSHIP MAP AND LAND OWNERS LIST**

**APPENDIX IC – LEGAL DESCRIPTION, PERMIT BOUNDARY**

**APPENDIX ID – LEGAL AUTHORITY**

**APPENDIX IE – APPOINTMENTS/AFFIDAVITS**

**APPENDIX IF – DOCUMENTATION OF APPLICATION FEE PAYMENT**

## 5 LEGAL AUTHORITY

---

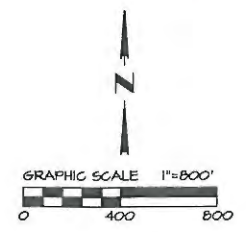
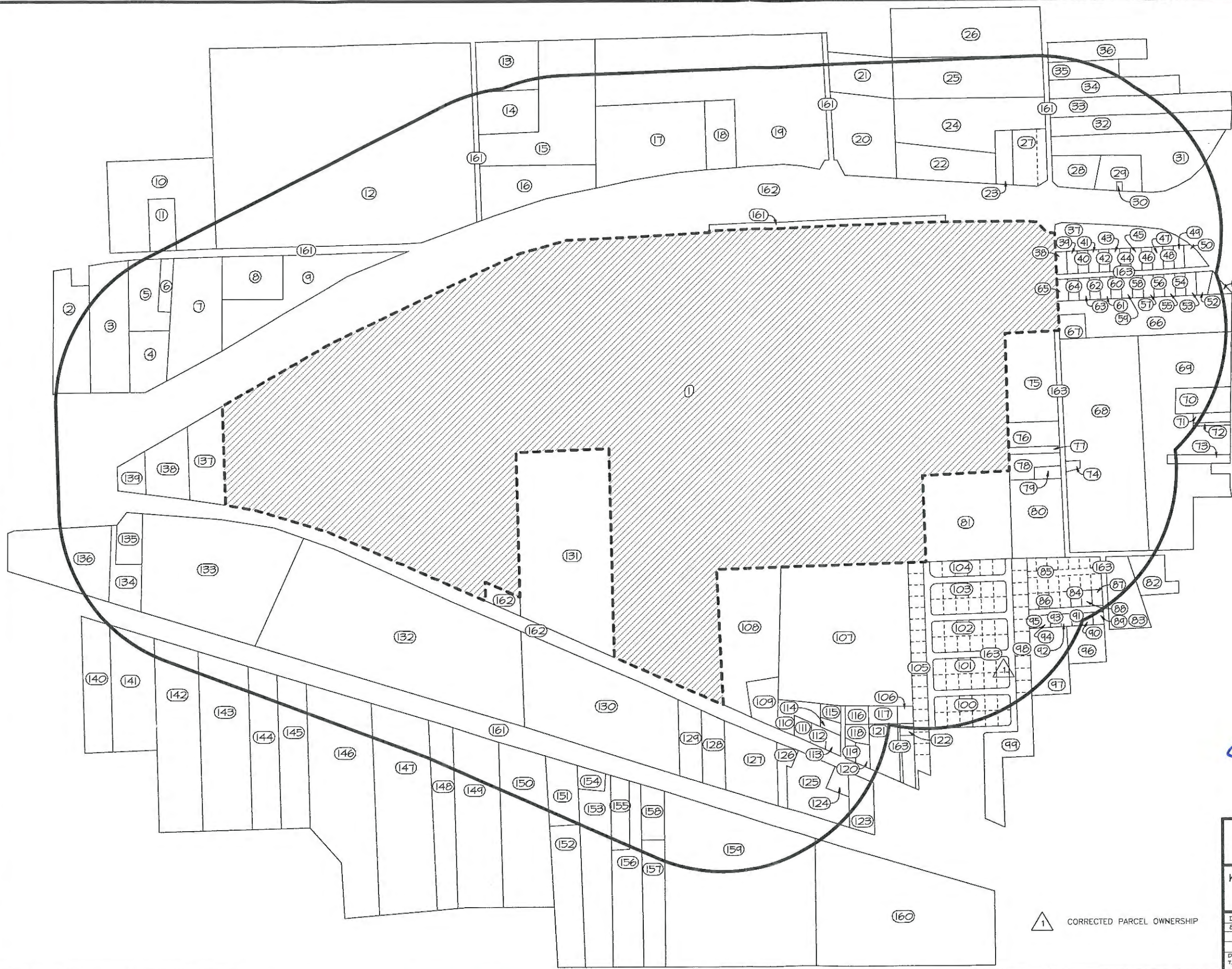
30 TAC §330.59(e)

The legal authority and status of the applicant has been verified as required by §330.59(e) and §281.5 and is included in Appendix ID – Legal Authority. The New Boston Landfill is owned by Western Waste of Texas, LLC and operated by WMTX. No other person or entity owns more than 20 percent of the facility. No person has over 20% ownership in Western Waste of Texas, LLC or Waste Management of Texas, Inc.

**NEW BOSTON LANDFILL**  
**APPENDIX IB**  
**LAND OWNERSHIP MAP AND LAND OWNERS LIST**



X:\2010 Projects\107004 New Boston Landfill\Ownership Map\_NELF\_Rev 0.dwg



- LEGEND**
- 1/4 MILE RADIUS
  - PROPOSED PERMIT BOUNDARY
  - TRACT NUMBER
  - PROPERTY OWNED BY WESTERN WASTE OF TEXAS, LLC

**NOTES:**  
 PROPERTY OWNERSHIP DATA AND INDICATED PROPERTY LINES ARE BASED ON BOWIE COUNTY APPRAISAL DISTRICT RECORDS.  
 THE REAL PROPERTY APPRAISAL RECORDS OF BOWIE COUNTY DO NOT PROVIDE MINERAL INTEREST OWNERSHIP DATA.



*David A. Williams*  
 8/12/2013

ISSUED FOR PERMITTING PURPOSES ONLY.

<b>LAND OWNERSHIP MAP</b>		<b>MTG</b> <i>engineers &amp; surveyors</i>
WASTE MANAGEMENT OF TEXAS, INC. NEW BOSTON LANDFILL PERMIT AMENDMENT APPLICATION		
Date 8/13	Revision/Description ADMIN NOD #1 RESPONSE	5930 SUMMERHILL RD.   P.O. BOX 3706 TEXARKANA, TEXAS 75501 P 909.836.8583   F 909.892.4700 www.mtgengineers.com
Drawn By T.B.H.	Checked By D.A.H.	Project No. 107004
		Dwg. Date 6/2013
		© MTG 2013 TBPE NO. 354
		File No. <b>IB.1</b>

**NEW BOSTON LANDFILL  
APPENDIX IE  
APPOINTMENTS/AFFIDAVITS**



**WESTERN WASTE OF TEXAS, LLC**

800 Gessner Road, Suite 1100  
Houston, TX 77024-4257  
(713) 647-5542  
(713) 647-5549 Fax

Mr. Zak Covar  
Executive Director  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

RE: New Boston Landfill  
Bowie County, TCEQ Permit No. MSW 576C  
Authorization to File

Dear Mr. Covar:

I am the President of Western Waste of Texas, LLC, a Texas corporation. I hereby confirm that Waste Management of Texas, Inc., a corporate affiliate of Western Waste, is authorized to apply to the Texas Commission on Environmental Quality (TCEQ) for authorization to expand the New Boston Landfill and to submit this application to amend TCEQ Permit No. MSW 576B and to conduct other business in connection with such application, submitted as TCEQ Permit No. MSW 576C.

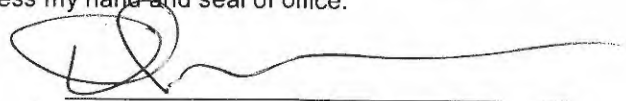
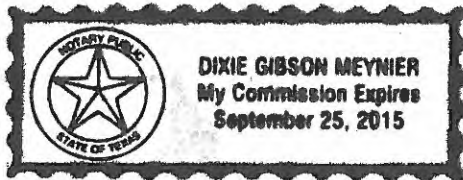
ATTEST:  
Western Waste of Texas, LLC



Donald J. Smith  
President

STATE OF TEXAS           §  
  §  
COUNTY OF Harris       §

SWORN TO AND SUBSCRIBED BEFORE ME by Donald J. Smith on this 4<sup>TH</sup> day of SEPTEMBER, 2013, which witness my hand and seal of office.



Notary Public in and for the State of Texas

DIXIE GIBSON MEYNIER

Printed Name

My Commission Expires 9/25/15



**WASTE MANAGEMENT**

800 Gessner Road, Suite 1100  
Houston, TX 77024-4257  
(713) 647-5542  
(713) 647-5549 Fax

Mr. Zak Covar  
Executive Director  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

RE: New Boston Landfill  
Bowie County, TCEQ Permit No. MSW 576C  
Notice of Appointment – Engineer

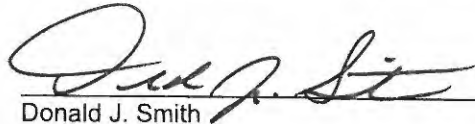
Dear Mr. Covar:

This is to advise you that officials at Waste Management of Texas, Inc. have duly appointed Biggs and Mathews Environmental, Inc., as consulting and designing engineers for the purpose of submitting engineering reports and planning material for a permit amendment application for the New Boston Landfill, Permit No. MSW 576C.

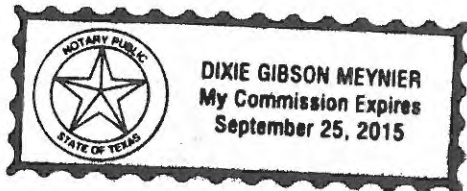
Biggs and Mathews Environmental, Inc., is an engineering firm employing professional engineers in good standing in accordance with State statutes, and the firm has experience in the design and construction of similar facilities. Kenneth J. Welch, P.E., Principal, with Biggs and Mathews Environmental, Inc., is Engineer of Record for this permit amendment application. He is registered in the State of Texas and has more than 32 years' experience in engineering.

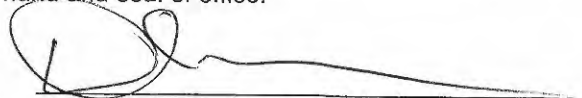
We herewith authorize you to review and comment on such reports, planning material, and data on this proposed project as Biggs and Mathews Environmental, Inc., may submit to you.

ATTEST:  
Waste Management of Texas, Inc.

  
Donald J. Smith  
President

SWORN TO AND SUBSCRIBED BEFORE ME by Donald J. Smith on this 14<sup>TH</sup> day of SEPTEMBER, 2013, which witness my hand and seal of office.



  
Notary Public in and for the State of Texas  
DIXIE GIBSON MEYNIER  
Printed Name  
My Commission Expires: 9/25/15

**V  
o  
l  
u  
m  
e  
  
4**

**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**VOLUME 4 OF 5**

Prepared for  
**Waste Management of Texas, Inc.**

July 2013

Revised September 2013



9/03/2013

**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

**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**VOLUME 4 OF 5**

**CONTENTS**

---

**PART III FACILITY INVESTIGATION AND DESIGN**

- Attachment E – Geology Report
- Attachment F – Groundwater Monitoring Plan



9/03/2013



**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

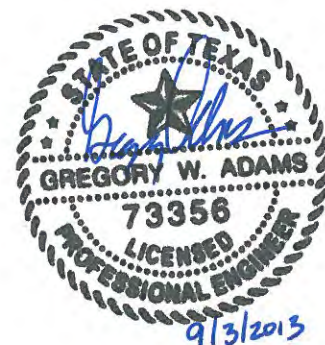
**PART III – SITE DEVELOPMENT PLAN  
ATTACHMENT E  
GEOLOGY REPORT**

Prepared for

**Waste Management of Texas, Inc.**

July 2013

Revised September 2013



FOR SECTIONS 2.3, 5.1-5-3

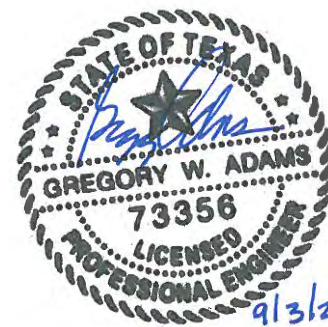
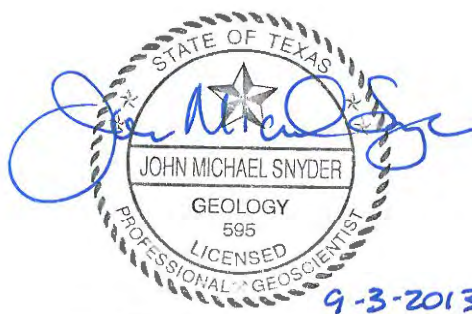
Prepared by

**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



**CONTENTS**

9-3-2013  
9/3/2013  
FOR SECTIONS 2.3, 5.1-5.3

**LIST OF TABLES** ..... E-v

**1 REGIONAL GEOLOGIC/HYDROGEOLOGIC INFORMATION** ..... E-1

1.1 Regional Physiography and Topography ..... E-1

1.2 Regional Geology ..... E-1

1.2.1 Geologic History ..... E-1

1.2.2 Regional Stratigraphy ..... E-2

1.2.3 Regional Structure ..... E-3

**2 GEOLOGIC PROCESSES** ..... E-4

2.1 Fault Areas ..... E-4

2.1.1 Previous Investigation ..... E-4

2.1.2 Recent Investigation ..... E-5

2.2 Seismic Impact Zones ..... E-5

2.3 Unstable Areas ..... E-6

**3 REGIONAL AQUIFERS** ..... E-7

3.1 Regional Hydrogeology ..... E-7

3.2 Water Well Locations ..... E-9

3.3 Oil and Gas Well Locations ..... E-10

**4 SUBSURFACE INVESTIGATION REPORT** ..... E-11

4.1 Soil Boring Plan ..... E-11

4.1.1 Biggs and Mathews Environmental – 2009 to 2011 ..... E-14

4.2 Previous Drilling Activities ..... E-15

4.2.1 Biggs and Mathews Environmental – Site Exploration  
2000 and 2001 ..... E-15

4.2.2 Field Drilling and Sampling – 1990 to 1999 ..... E-16

4.3 Site Stratigraphy ..... E-16

4.3.1 Layer I ..... E-17

4.3.2 Layer IA ..... E-17

4.3.3 Layer II ..... E-18

4.3.4 Layer IIA ..... E-18

4.3.5 Layer III ..... E-18

**5 GEOTECHNICAL DATA** ..... E-19

5.1 Laboratory Reports ..... E-19

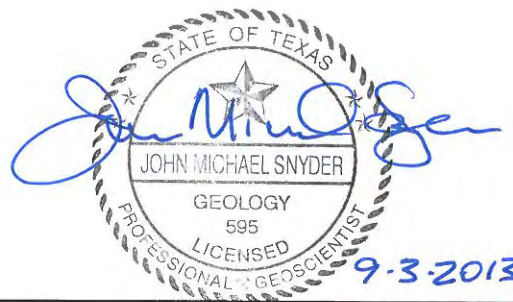
5.2 Material Characteristics ..... E-20

5.3 Material Requirements ..... E-20

5.4 Groundwater Occurrence ..... E-21

5.4.1 Groundwater Observation Points – Piezometers and  
Monitoring Wells ..... E-21

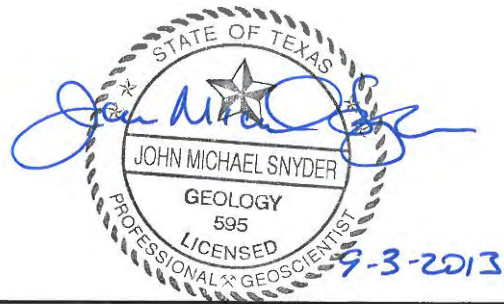
5.4.2 Water Level Measurements ..... E-23



**CONTENTS (CONTINUED)**

5.4.3	Water Level Measurements During Drilling.....	E-28
5.5	Groundwater Monitoring Analytical Data .....	E-30
5.6	Hydrogeologic Units.....	E-30
5.6.1	Layer I.....	E-30
5.6.2	Layer IA.....	E-30
5.6.3	Layer II – Uppermost Aquifer.....	E-31
5.6.4	Layer IIA.....	E-31
5.6.5	Layer III – Lower Confining Unit.....	E-32
5.6.6	Field Permeability (Slug) Tests.....	E-32
5.6.7	Groundwater Flow Rate.....	E-33
<b>6</b>	<b>ARID EXEMPTION.....</b>	<b>E-34</b>
<b>7</b>	<b>REFERENCES.....</b>	<b>E-35</b>
<b>APPENDIX E1 – REGIONAL GEOLOGIC/HYDROGEOLOGIC DATA</b>		
	Geologic Vicinity Map.....	E1-1
	Geologic Vicinity Legend.....	E1-2
	Generalized Regional Geologic Cross Section.....	E1-3
	Regional Potentiometric Map of the Nacatoch Aquifer .....	E1-4
	Water Well Location Map .....	E1-5
<b>APPENDIX E2 – SITE EXPLORATION DATA</b>		
	Boring Plan Approval Letter .....	E2-1
	Borings, Piezometers and Monitoring Well Location Map.....	E2-2
	Logs of Borings, Piezometers and Monitoring Wells.....	E2-3 through E2-226
<b>APPENDIX E3 – SITE GEOLOGIC DATA</b>		
	Geologic Cross Section Location Map.....	E3-1
	Geologic Cross Section A-A' .....	E3-2
	Geologic Cross Section B-B' .....	E3-3
	Geologic Cross Section C-C' .....	E3-4
	Geologic Cross Section C-C' Split.....	E3-4a
	Geologic Cross Section C-C' Split.....	E3-4b
	Geologic Cross Section C-C' Split.....	E3-4c
	Geologic Cross Section D-D'.....	E3-5
	Geologic Cross Section E-E' .....	E3-6
	Geologic Cross Section F-F'.....	E3-7
	Geologic Cross Section G-G' .....	E3-8
	Geologic Cross Section H-H'.....	E3-9
	Geologic Cross Section I-I'.....	E3-10





**CONTENTS (CONTINUED)**

Geologic Cross Section J-J' .....E3-11  
 Isopach Map of Thickness of Upper Sand (Layer IA) .....E3-12  
 Isopach Map of Thickness of Lower Sand (Layer II).....E3-13  
 Structure Map of Base Lower Sand (Layer II).....E3-14

**APPENDIX E4 – FAULT AND SEISMIC DATA**

Seismic Impact Zone Map.....E4-1  
 Location of Gas Producing Wells .....E4-2  
 Plugging Reports Oil/Gas Well..... E4-3 through E4-9

**APPENDIX E5 – LABORATORY TESTS**

Geotechnical Laboratory Test Summary .....E5-1  
 Geotechnical Laboratory Testing Data by LandTec Engineers – 2011  
     Grain Size Distribution.....E5-3  
     Hydraulic Conductivity Worksheet .....E5-7  
     Triaxial Shear Test Reports .....E5-16  
     Consolidation Test Reports .....E5-19  
     Composite Sample Tests.....E5-22

**APPENDIX E6 – SITE HYDROGEOLOGIC DATA**

Potentiometric Surface Map – September 30, 2011 .....E6-1  
 Potentiometric Surface Map – October 14, 2011 .....E6-2  
 Potentiometric Surface Map – October 28, 2011 .....E6-3  
 Potentiometric Surface Map – November 11, 2011 .....E6-4  
 Potentiometric Surface Map – November 28, 2011 .....E6-5  
 Potentiometric Surface Map – December 9, 2011 .....E6-6  
 Potentiometric Surface Map – January 23, 2012.....E6-7  
 Potentiometric Surface Map – February 27, 2012 .....E6-8  
 Potentiometric Surface Map – March 15, 2012.....E6-9  
 Potentiometric Surface Map – April 26, 2012 .....E6-10  
 Potentiometric Surface Map – May 25, 2012.....E6-11  
 Potentiometric Surface Map – June 8, 2012.....E6-12  
 Potentiometric Surface Map – August 29, 2012 .....E6-13  
 Potentiometric Surface Map – September 19, 2012 .....E6-14  
 Groundwater Velocity Calculations.....E6-15

**APPENDIX E7 – HISTORICAL GROUNDWATER ANALYTICAL DATA**

**V  
o  
l  
u  
m  
e  
  
5**



**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**VOLUME 5 OF 5**

Prepared for

**Waste Management of Texas, Inc.**

July 2013

Revised September 2013



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

**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**VOLUME 5 OF 5**

**CONTENTS**

---

**PART III FACILITY INVESTIGATION AND DESIGN**

- Attachment G – Landfill Gas Management Plan
- Attachment H – Closure Plan
- Attachment I – Postclosure Plan
- Attachment J – Cost Estimate for Closure and Postclosure Care

**PART IV SITE OPERATING PLAN**



9/03/2013

**NEW BOSTON LANDFILL  
BOWIE COUNTY, TEXAS  
TCEQ PERMIT APPLICATION NO. MSW 576C**

**PERMIT AMENDMENT APPLICATION**

**PART III – FACILITY INVESTIGATION AND DESIGN  
ATTACHMENT J  
COST ESTIMATES FOR CLOSURE AND POSTCLOSURE CARE**

Prepared for

**Waste Management of Texas, Inc.**

July 2013

Revised September 2013



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

# CONTENTS

---

LIST OF TABLES AND FIGURES.....	J-iii
1 INTRODUCTION.....	J-1
2 CLOSURE COST ESTIMATE.....	J-2
3 POSTCLOSURE CARE COST ESTIMATE.....	J-3
4 COST ESTIMATE ADJUSTMENTS.....	J-4
5 FINANCIAL ASSURANCE.....	J-5

## APPENDIX J1

Closure Cost Estimate Calculations

## APPENDIX J2

Postclosure Care Cost Estimate Calculations

## APPENDIX J3

Evidence of Financial Assurance



9/03/2013

**NEW BOSTON LANDFILL**  
**APPENDIX J3**  
**EVIDENCE OF FINANCIAL ASSURANCE**





**WASTE MANAGEMENT**

800 Gessner Road, Suite 1100  
Houston, TX 77024-4257  
(713) 647-5542  
(713) 647-5549 Fax

Mr. Zak Covar  
Executive Director  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Re: New Boston Landfill  
Bowie County, Texas  
Permit Amendment Application  
TCEQ Permit Amendment Application No. MSW 576C

Dear Mr. Covar:

This letter is to provide Evidence of Financial Responsibility pursuant to 30 TAC §330.503(b) and §330.507(b) of the Municipal Solid Waste Management Regulations with respect to the above-referenced project.

Waste Management of Texas, Inc. agrees to provide financial assurance for this permit in accordance with the financial assurance schedule developed in Part III, Attachment J - Cost Estimates for Closure and Postclosure Care, or other amount specified by the Texas Commission on Environmental Quality (TCEQ).

In accordance with §37.8031 the assurance will be provided by, but is not limited to, one or more of the following:

1. Trust Fund
2. Surety Bond Guaranteeing Payment or Performance
3. Letter of Credit
4. Insurance
5. Corporate Guarantee

After this permit amendment application is approved by TCEQ, Waste Management of Texas, Inc. will file the required financial assurance. A copy of the required documentation will be submitted to the executive director of the TCEQ within 60 days from issuance of this permit. The financial assurance will indicate the TCEQ as beneficiary and shall remain in full force and effect throughout the life of the permit.

ATTEST:

Waste Management of Texas, Inc.

A handwritten signature in black ink, appearing to read "Donald J. Smith", written over a horizontal line.

Donald J. Smith  
President