

**130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 2383**

TYPE I PERMIT APPLICATION

**RESPONSE TO AUGUST 1, 2014
NOTICE OF DEFICIENCY LETTER**

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2014

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL
1700 Robert Road, Suite 100 ♦ Mansfield, Texas 76063 ♦ 817-563-1144



BIGGS & MATHEWS ENVIRONMENTAL

Consulting Engineers ♦ Hydrogeologists

Mansfield ♦ Wichita Falls

August 22, 2014

Mr. Steve Odil, P.E.
Municipal Solid Waste Permits Section
Waste Permits Division – MC 124
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Re: 130 Environmental Park – Caldwell County
Municipal Solid Waste (MSW) – Permit No. 2383
Response to August 1, 2014 Notice of Deficiency Letter
Tracking No. 17458939 (18347603); CN604375972/RN106897036

Dear Mr. Odil:

This response to your August 1, 2014 notice of deficiency letter addressed to Mr. Ernest Kaufmann, President and Manager of 130 Environmental Park, LLC, is submitted on behalf of 130 Environmental Park, LLC, for the referenced permit application. Our responses to the Texas Commission on Environmental Quality (TCEQ) comments are presented below in the order listed in your letter.

PART II

1. Please address the following items regarding Drawings IIA.9 (Geologic Vicinity Map) and IIA.9A (Geologic Vicinity Map Legend):

- a. On Drawing IIA.9, add a "PAmi" (Midway Group strata) label to the outcrop of Midway at the site, to make it clear to readers that although it was not labeled on the source map, it is an outcrop of Midway.

RESPONSE: *The outcrop of the Midway at the site has been labeled on Drawing IIA.9.*

- b. On Drawing IIA.9A, include an explanation of fault symbols in the legend.

RESPONSE: *An explanation of fault symbols has been added to the legend on the new Drawing IIA.9B.*

- c. Provide sharper reproductions of the explanations of map units in Drawing IIA.9A. The existing drawing is barely legible and may become illegible if copied.

RESPONSE: *The explanation of the maps units were enlarged and split into two drawings, Drawings IIA.9A and IIA.9B. This also changed Figure IIA.9B to IIA.9C.*

PART III, ATTACHMENT C – FACILITY SURFACE WATER DRAINAGE REPORT

2. As noted in comment 17b of the May 6, 2014, NOD letter, a demonstration of no adverse change to drainage patterns, required by 30 TAC §330.305(a) and 30 TAC §330.63(c)(1)(C), is summarized in Appendix C1-A. The evaluation identifies 12 comparison points: CP1 and CP5 through CP8, which are permit boundary discharge points; CP2 through CP4, which are permit boundary influent points; and CP9 through CP12, which are property boundary discharge points. Discharge rates at CP7 and CP8 (on the permit boundary) indicate reductions of 42% and 12% respectively between the pre- and post-development conditions, by the time discharges leave the property boundary, values do not change significantly (no more than 1.2%). It appears that drainage pattern changes are limited to property owned by you; however, the requirement that drainage patterns not be altered at the permit boundary is not met where alterations are mitigated on off-site property. As required under 30 TAC §330.67, please provide documentation to show that the applicant owns or controls the property at the CP9 through CP12 discharge points and will continue to maintain control for the life of the facility.

RESPONSE: *Since the proposed alterations of drainage patterns at comparison points CP7 and CP8 are not adverse, they should be allowed under 30 TAC §330.305(a) and 30 TAC §330.63(c)(1)(C), that state drainage patterns will not be adversely altered. A summary of proposed drainage pattern alterations at CP7 and CP8 include:*

- (1) Reduction in peak flow rate, which is a beneficial alteration reducing the potential for flooding.*
- (2) An increase in total runoff volume of 23.3 ac-ft at CP7 and a slight reduction in total runoff volume of 10.5 ac-ft at CP8 for a net increase of 12.8 ac-ft for a potentially enhanced water supply.*

In addition, the alteration of drainage patterns is insignificant because both comparison points CP7 and CP8 are located within the same large water body, Site 21 Reservoir, during the 25 year storm event. The peak storage volume of the Site 21 Reservoir and peak inflow to the reservoir from Dry Creek exceed 2,300 ac-ft and 3,800 cfs, respectively, during the 25-year storm event. Considering the proposed net changes within the water body of less than 4% decrease in peak discharge rate and less than 1% increase in volume, the proposed alterations would be insignificant.

Therefore, the changes to drainage patterns at CP7 and CP8 are neither adverse nor significant and meet 30 TAC §330.305(a) and 30 TAC §330.63(c)(1)(C). Attachment C1, Section 7, page C1-14a has been revised for clarification.

3. Comment 19 of the May 6, 2014, NOD letter requested design drawings for energy dissipators at the bottom of chutes or an explanation of why dissipators will not be needed in accordance with 30 TAC §330.63(c)(1)(B). The response indicates that these are now provided in Attachment C3. It is not clear which changes to Attachment C3 address this concern. Please explain with greater detail how changes within Attachment C3 address the comment.

RESPONSE: *In response to the May 6, 2014 NOD letter, revisions to the chutes were made to C3-17 and C3-20. Notes 1 and 2 were added to C3-17 describing the energy dissipation or erosion protection required for each chute, and a detail titled Gabion Chute Discharge Structure was added to C3-20.*

4. Comment 20e of the May 6, 2014, NOD letter noted that, while information provided in the application demonstrates that waste units will not be located within the 100-year floodplain, there are two entrance roads that would cross floodplain. The comment requested, in accordance with 30 TAC §330.63(c)(2)(D)(ii), a demonstration that the proposed construction has a floodplain development permit from the city, county, or other agency with jurisdiction over the proposed improvements. The response indicates that you have begun preliminary platting with Caldwell County, will obtain all local permits and authorizations, and will provide them when obtained. We await documentation of those authorizations in accordance with the cited rule.

RESPONSE: *130 Environmental Park has begun the preliminary platting process with Caldwell County and will obtain all local permits and authorizations required of the project. As these authorizations are obtained, they will be forwarded to the TCEQ.*

PART III, ATTACHMENT D – WASTE MANAGEMENT UNIT DESIGN

5. Comment 29b of the May 6, 2014, NOD letter asked for an explanation of why the protective cover layer of the liner system was modeled in Hydrologic Evaluation of Landfill Performance (HELP) as 0.08 feet of barrier soil and 1.92 feet of vertical percolation, as presented in Appendix D6-B. The response expands Appendix D6-B to indicate that the top one inch of the protective cover was modeled as a barrier layer (to simulate a material that drains vertically as saturated flow) because the HELP model will not allow a vertical percolation layer to immediately underlie a lateral drainage layer. Based on the HELP model run printout, the top 0.08 feet (1 inch) of protective cover is modeled with a hydraulic conductivity of 10^{-6} cm/sec while the remaining 1.92 feet (23 inches) of protective cover is modeled with a hydraulic conductivity of 10^{-3} cm/sec. Please explain how the values for hydraulic conductivity were chosen for the two modeled layers of the protective cover and why they are not equal. Also please note that in the referenced paragraph, the thickness of the bottom layer of the protective cover indicates that it is 1.92 feet (11 inches). Please correct this typographical error.

RESPONSE: *The highly plastic CH soils that will be used as protective cover typically have a hydraulic conductivity of 10^{-7} cm/sec or less. A hydraulic conductivity of 10^{-6} cm/sec was selected for the top 1 inch and a hydraulic conductivity of 10^{-3} cm/sec was selected for the bottom 23 inches of the layer to be extremely conservative. However, at the request the TCEQ we have revised the HELP model to use a consistent hydraulic conductivity of 10^{-6} cm/sec throughout the entire protective cover layer.*

Appendix D6-B, page D6-B-3 has been revised to explain the selection of the hydraulic conductivity for the protective cover layer and to correct the typographical error. Page D6-B-4 has been updated with the results from the revised HELP models and pages D6-B-5 through D6-B-166 have been replaced with the revised HELP models. Appendix D6-A, pages D6-A-4 through D6-A-8 have been updated with the revised HELP model results and page D6-A-17 has been added to provide justification for the protective cover hydraulic conductivity.

6. Comment 36 of the May 6, 2014, NOD letter noted that Attachment D7, Section 5.5.4 of the Liner Quality Control Plan (LQCP) included language indicating that the vacuum box pressure will be reduced to about three to five inches of mercury (in Hg). The Liner Handbook indicates that three to five in Hg of vacuum should be applied. Text now indicates that "Three to five inches of Hg. should be applied." Please replace "should" with "will," and add "of vacuum" before "will be applied."

RESPONSE: *Attachment D7, Section 5.5.4 has been revised as requested.*

7. Comment 37 of the May 6, 2014, NOD letter discussed thickness verification addressed in Section 5.5.5 of the LQCP. The response cover letter indicates that the July 1, 1994 MSW Liner Construction Handbook (Liner Handbook) "is not recognized by the TCEQ as a current design guide." The Liner Handbook was removed from public access primarily because of a need to update rule references that changed as a result of the Chapter 330 rule re-write in 2006. The document continues to be recognized by the MSW Permit Section and its guidelines continue to be followed. In accordance with the Liner Handbook, please provide for field thickness testing to be performed for each panel. Use a micrometer or calipers and perform one series of five measurements along the leading edge of each panel, with individual measurements no greater than five feet apart. We suggest that for smooth high-density polyethylene (HDPE) geomembrane, the average of the readings should be no less than the nominal thickness of the geomembrane and the minimum reading should be no less than 90% of the nominal thickness. For textured HDPE geomembrane we suggest that the average be no less than 95% of the nominal thickness and the minimum reading should be no less than 85% of nominal thickness. Please delete the first three sentences of Section 5.5.5 and clarify that thickness testing criteria provided in GRI-GM13 are for manufacturer and conformance thickness testing, not for field thickness testing.

RESPONSE: *Attachment D7, Sections 5.5.2 and 5.5.5 have been revised as requested.*

PART III, ATTACHMENT E – GEOLOGY REPORT

8. Please apply the comments earlier in this letter regarding Drawings IIA.9 and IIA.9A to Figures E1-1 (Geologic Vicinity Map) and E1-2 (Geologic Vicinity Map Legend). Also, please revise the note on Figure E1-1 to refer to Figure E1-2 (rather than to Drawing IIA.9A).

RESPONSE: *The outcrop of the Midway at the site has been labeled on Drawing E1-1. The explanations of the maps units were enlarged and split onto to two drawings, Drawings E1-2 and E1-2A. An explanation of fault symbols has been added to the legend on the new Drawing E1-2A. The reference was revised on the figure as well as in Attachment E, Section 4.2, and Section 7.*

9. Please update the text in Section 5.6.2 to account for the recently acquired result of 5.90×10^{-8} cm/sec for a sample from Stratum I.

RESPONSE: *The permeability for Stratum I was added to Section 5.6.2.*

10. Please check the arithmetic mean for Stratum II in Table E-11 for consistency with the text in Section 5.6.2.

RESPONSE: *The arithmetic mean for Stratum II has been revised in Section 5.6.2. The value in Table E-11 was correct.*

11. Please revisit comment 58 in our review letter dated May 6, 2014, and document the lines on Figure E3-10 (structure contour map for the top of Stratum III) along which you measured hydraulic gradient. Please tabulate the gradient values for each line, and the average.

RESPONSE: *In response to this comment and following a clarification discussion with TCEQ, the detailed evaluation of site-wide groundwater gradients was reviewed and documentation of the evaluation was added to the permit application. Text has been added to a new Section 5.6.3.1 – Groundwater Gradient Evaluation that discusses this evaluation. This addition includes that the facility was evaluated for site-wide groundwater gradient occurrence. The evaluation used the structural contour map of the Stratum III surface constructed over the entire site (See Figure E3-10). Based on this evaluation, eight separate flowlines were identified that are representative of the range of gradient variability through this period. These flowlines and their corresponding gradients are shown on new Figure E6-2. The gradient for each flowline is also shown in Table E-12. Using the gradient for each flowline, a groundwater velocity was calculated for each flowline. The calculated groundwater velocities are shown in the groundwater flow velocity calculation sheet (Figure E6-1) and added to text in Section 5.6.3.1 as Table E-13. Minor corresponding changes were also made to the text in Section 1.2 of Attachment F.*

NOTE: *In response to a verbal request, Attachment E, Table E-3 – Water Wells within One Mile, has been updated to include a column to identify the online source(s) of the information.*

PART III, ATTACHMENT F – GROUNDWATER SAMPLING AND ANALYSIS PLAN

12. Please revisit comment 62 in our review letter dated May 6, 2014, which requested that you revise Section 2.3 of Appendix F2 to indicate that if after 7 days a well has not recovered sufficiently for a complete sample set, a partial set of samples will be collected, in an order dictated by data needs. The response should make it clear that if a well recovers sufficiently for a full set of samples, then a full set of samples should be collected; and that if after allowing 7 days for recovery a well recovers only partially, then a partial set of samples will be collected.

RESPONSE: *Appendix F2, Section 2.3 – Well Purging, has been revised to include the requested language.*

PART III, ATTACHMENT G – LANDFILL GAS MANAGEMENT PLAN

13. Section 2.7 was revised in response to comment 65 in our review letter dated May 6, 2014, to indicate that the geologic, hydrogeologic, and hydraulic conditions were evaluated to "ensure that the selected monitoring frequency would be sufficient to identify potential landfill gas migration before it can travel a significant distance outside the permit boundary." Please clarify what a "significant distance" is.

RESPONSE: *Section 2.7 of the Landfill Gas Management Plan (Part III, Attachment G) has been revised to remove the reference to a "significant distance" and to summarize consideration of the factors listed in 30 TAC §330.371(b)(1) in determining the type and frequency of LFG monitoring.*

PART III, ATTACHMENT H – CLOSURE PLAN

14. Comment 75 of the May 6, 2014, NOD letter requested that the Closure Plan include provisions for waste storage and processing areas and the Reusable Materials Storage Area. While the response provides the needed information for waste storage and processing areas, it does not appear to address the Reusable Materials Storage Area. Please address closure requirements for the Reusable Materials Storage Area in accordance with 30 TAC §330.459.

RESPONSE: *Attachment H, Sections 3.2, 4.2, and 5 have been revised to address the closure of the Reusable Materials Staging Area.*

PART III, ATTACHMENT J – COST ESTIMATES FOR CLOSURE AND POSTCLOSURE CARE

15. Comment 77 of the May 6, 2014, NOD letter requested additions to the Closure Cost Estimate in Appendix J1 to address waste storage and processing areas and the

Reusable Materials Storage Area in accordance with 30 TAC §330.505. While the response provides the needed information for waste storage and processing areas, it does not appear to address the Reusable Materials Storage Area. Please provide for these costs in the estimate with quantities tied to maximum quantities that may be onsite in these units and for disassembly and disposal of units, as appropriate.

RESPONSE: *Attachment J, Table J-1 and Appendix J1, Section 2.9 and page J1-5 have been revised to address the Reusable Materials Staging Area.*

PART IV – SITE OPERATION PLAN (SOP)

16. Comment 79 of the May 6, 2014, NOD letter requested a demonstration, in accordance with 30 TAC §330.129, that the largest active face may be covered with 6 inches of soil within one hour. Information regarding round-trip travel time has been deleted from the demonstration and does not appear to have been accounted for in the demonstration. Please provide a demonstration that available equipment will be capable of covering the largest active waste disposal area with soil, from a stockpile up to 2,500 feet away (as indicated in Section 7.1), within one hour.

RESPONSE: *Section 7.1 has been revised. The capacity and production rate of the available equipment accounts for round trip travel and demonstrates that the available equipment is capable of covering the largest active working face with soil, from a soil stockpile located up to 1,000 feet away.*

17. Comment 79 of the May 6, 2014, NOD letter requested an explanation of how the active working face will be limited to the total capacity of the dozer and compactor capacity and the excavator and haul truck capacity, as indicated in the last bulleted item on page IV-26, during operations. This text was deleted in the response, but has been replaced with very similar language. Text implies that the largest active face provided in the Fire Protection Plan could be expanded with the arrival of larger equipment. If this is desired, please provide a description of how operators will make this calculation during waste acceptance and explain how this affects the largest active face, required under 30 TAC §330.113(a) and provided in Section 8.2.

RESPONSE: *Section 7.1 has been revised. The references to expanding the active working face with additional equipment have been removed. The 3rd and 4th bullets on page IV-28 have been deleted.*

18. Comment 86 of the May 6, 2014, NOD letter requested expansion of subsections of Section 8.25 to ensure that all requirements of 30 TAC §330.203(b) are addressed. These sections have been expanded but some subsections do not appear to address maximum and average lengths of time that wastes will remain on site, maximum and average processing times, and intended destinations. Please provide this information.

RESPONSE: *Section 8.25 has been revised to address requirements of §330.203(b) as related to wastes received at the facility. Section 8.25.1 – Large*

Item Storage Area, Section 8.25.3 – Citizen's Convenience Center, Section 8.25.4 – Used / Scrap Tire Storage Area, Section 8.25.5 – Wood Waste Processing Area, Section 8.25.6 – Leachate Storage Facility, and Section 8.25.7 – Truck Wheel Wash have been reviewed and revised to address all requirements of §330.203(b). Section 8.25.2 – Reusable Materials Staging Area states that since these inert and non-inert materials will be used in site operations, there is no limit on the amount of time these materials will be stored on site.

19. Comment 89 of the May 6, 2014, NOD letter requested an expansion of Chapter 7 to address the requirements of 30 TAC §330.221 to provide for fire protection, where appropriate, for storage and processing areas. Section 7.1 has been expanded, but does not appear to address the requirement under 30 TAC §330.221(a) that an adequate supply of water under pressure must be available for firefighting purposes. Please provide for this rule.

RESPONSE: Section 7.1 has been revised to address the requirements of §330.221(a) that an adequate supply of water under pressure will be available for firefighting purposes for the storage and processing areas. The storage and processing facilities located within the facility entrance area include the Citizens' Convenience Center, Large Item Storage Area, and the Used / Scrap Tire Storage Area. These facilities are provided an adequate supply of water under pressure from the above ground water storage tank for firefighting purposes, which is located adjacent to the Transfer Station as provided under Registration No. 40269. The storage and processing facilities located within the landfill footprint include the Large Item Storage Area, Reusable Materials Staging Area, Used / Scrap Tire Storage Area, and the Wood Waste Processing Area. These facilities are provided an adequate supply of water under pressure from the water truck for firefighting purposes as noted in Part IV, Table 4-1. Inert materials located within the Reusable Materials Staging Area do not require a water supply for fire protection.

20. Comment 90 of the May 6, 2014, NOD letter requested text to address applicable subsections of 30 TAC §330.245, regarding ventilation and air pollution control. Section 8.27 has been added to address this rule; however, Section 8.27.1 provides an Odor Management Plan, which is also provided in Section 8.10. The text in 8.27 does not match the information in 8.10 and the second bullet in 8.27 refers to wastes that are prohibited in the Waste Acceptance Plan. Please address these concerns.

RESPONSE: Section 8.27.1 has been deleted. Odor control requirements for storage and processing areas have been incorporated into Section 8.10 - Odor Management Plan. Section 8.27.2 has also been deleted. Requirements for prevention and elimination of ponded water associated with storage and processing areas has been incorporated into Section 8.19 - Ponded Water.

Mr. Steve Odil
August 22, 2014
Page 9

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

Kerry D. Maroney, P.E. – Biggs & Mathews, Inc. (F-834)
Principal Engineer

Attachments: Response to August 1, 2014 Notice of Deficiency

cc: Mr. Ernest Kaufmann, President and Manager of 130 Environmental Park, LLC



V o l u m e 1

**130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 2383**

TYPE I PERMIT APPLICATION

VOLUME 1 OF 5

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013
Revised February 2014
Revised June 2014

Revised August 2014



Biggs & Mathews, Inc.
Firm Registration No. F-834

K.D. Maroney
8/21/14

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

And

BIGGS & MATHEWS, INC.

2500 Brook Avenue ♦ Wichita Falls, Texas 76301 ♦ 940-766-0156

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-834

**130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 2383**

TYPE I PERMIT APPLICATION

VOLUME 1 OF 5

CONTENTS

TRANSMITTAL LETTER

APPLICATION TABLE OF CONTENTS

TCEQ PART I FORM

TCEQ CORE DATA FORM

PART I SITE AND APPLICANT INFORMATION

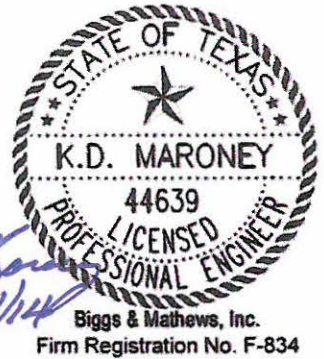
**PART II EXISTING CONDITIONS AND CHARACTER OF THE FACILITY AND
SURROUNDING AREA**



Biggs & Mathews, Inc.
Firm Registration No. F-834

K.D. Maroney
8/21/14

130 ENVIRONMENTAL PARK
CALDWELL COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 2383



APPLICATION MASTER TABLE OF CONTENTS

VOLUME 1 OF 5

TRANSMITTAL LETTER

APPLICATION MASTER TABLE OF CONTENTS

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-12
8	APPLICATION FEES	I-13

APPENDIX IA – GENERAL LOCATION MAPS

APPENDIX IB – LAND OWNERSHIP MAP AND LAND OWNERS LIST

APPENDIX IC – LEGAL DESCRIPTION AND FACILITY BOUNDARY MAP

APPENDIX ID – LEGAL AUTHORITY

APPENDIX IE – APPOINTMENTS

APPENDIX IF – DOCUMENTATION OF APPLICATION FEE PAYMENT

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

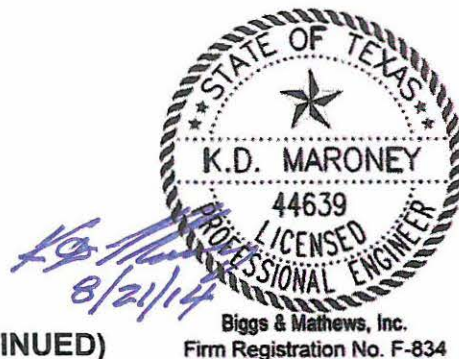
1	EXISTING CONDITIONS SUMMARY.....	II-1
2	WASTE ACCEPTANCE PLAN.....	II-3
3	GENERAL LOCATION MAPS.....	II-5
4	FACILITY LAYOUT MAPS	II-6
5	GENERAL TOPOGRAPHIC MAP.....	II-7



APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

Biggs & Mathews, Inc.
Firm Registration No. F-834

6	AERIAL PHOTOGRAPH	II-8
7	LAND USE MAP	II-9
8	IMPACT ON SURROUNDING AREA	II-10
9	TRANSPORTATION	II-11
10	GENERAL GEOLOGY AND SOILS STATEMENT	II-12
11	GROUNDWATER AND SURFACE WATER	II-19
12	ABANDONED OIL AND WATER WELLS	II-22
13	FLOODPLAINS AND WETLANDS	II-23
14	ENDANGERED OR THREATENED SPECIES	II-25
15	TEXAS HISTORICAL COMMISSION REVIEW	II-26
16	COUNCIL OF GOVERNMENTS AND LOCAL GOVERNMENT REVIEW REQUEST	II-27
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 – CULTURAL RESOURCES SURVEY		
APPENDIX IIG – TPDES PERMIT		
APPENDIX IIH – FEDERAL AVIATION ADMINISTRATION DOCUMENTATION		
APPENDIX III – CAPITAL AREA COUNCIL OF GOVERNMENTS DOCUMENTATION		
APPENDIX IIJ – FLOODPLAIN DOCUMENTATION		
APPENDIX IIK – LOCATION RESTRICTION CERTIFICATIONS		



APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

VOLUME 2 of 5

PART III – FACILITY INVESTIGATION AND DESIGN

ATTACHMENT A – SITE DEVELOPMENT PLAN

1	INTRODUCTION	A-1
2	GENERAL FACILITY DESIGN	A-4
3	FACILITY SURFACE WATER DRAINAGE DESIGN	A-5
4	WASTE MANAGEMENT UNIT DESIGN	A-6
5	GEOLOGY REPORT	A-7
6	GROUNDWATER SAMPLING AND ANALYSIS PLAN	A-8
7	LANDFILL GAS MANAGEMENT PLAN	A-9
8	CLOSURE PLAN	A-10
9	POSTCLOSURE PLAN	A-11
10	COST ESTIMATES FOR CLOSURE AND POSTCLOSURE CARE	A-12

ATTACHMENT B – GENERAL FACILITY DESIGN

1	FACILITY ACCESS	B-1
2	WASTE MOVEMENT	B-2
3	SANITATION	B-7
4	WATER POLLUTION CONTROL	B-9
5	ENDANGERED SPECIES PROTECTION	B-10

APPENDIX B1 – DRAWINGS

ATTACHMENT C – FACILITY SURFACE WATER DRAINAGE REPORT

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

ATTACHMENT C1 – DRAINAGE ANALYSIS AND DESIGN

1	INTRODUCTION	C1-1
2	METHODOLOGY	C1-3
3	EXISTING CONDITIONS	C1-5
4	POSTDEVELOPMENT CONDITIONS	C1-7



APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

5	PROPOSED DRAINAGE SYSTEM DESIGN.....	C1-9
6	EROSION AND SEDIMENTATION CONTROL	C1-11
7	EXISTING/POSTDEVELOPMENT COMPARISON	C1-14
8	CONCLUSIONS	C1-15

APPENDIX C1-A – EXISTING/POSTDEVELOPMENT COMPARISON

APPENDIX C1-B – EXISTING CONDITION 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

ATTACHMENT C2 – FLOOD CONTROL ANALYSIS

1	INTRODUCTION	C2-1
2	METHODOLOGY	C2-3
3	HYDROLOGIC AND HYDRAULIC MODELING.....	C2-4
4	EXISTING CONDITIONS	C2-6
5	POST-DEVELOPMENT CONDITIONS.....	C2-7
6	CONCLUSIONS	C2-8

APPENDIX C2-A – FLOODPLAIN MAPS

APPENDIX C2-B – EXISTING CONDITION HEC-HMS EVALUATION

APPENDIX C2-C – EXISTING CONDITION HEC-RAS EVALUATION

APPENDIX C2-D – POST DEVELOPMENT CONDITION HEC-RAS EVALUATION

ATTACHMENT C3 – DRAINAGE SYSTEM PLANS AND DETAILS



APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

VOLUME 3 OF 5

ATTACHMENT D – WASTE MANAGEMENT UNIT DESIGN

LIST OF TABLES AND FIGURES	D-iii
1 WASTE MANAGEMENT UNIT DESIGN.....	D-1
2 STORAGE AND TRANSFER UNITS	D-2
3 LANDFILL UNITS	D-5

ATTACHMENT D1 – SITE LAYOUT PLANS

ATTACHMENT D2 – CROSS SECTIONS

ATTACHMENT D3 – CONSTRUCTION DESIGN DETAILS

ATTACHMENT D4 – SITE LIFE

ATTACHMENT D5 – GEOTECHNICAL DESIGN

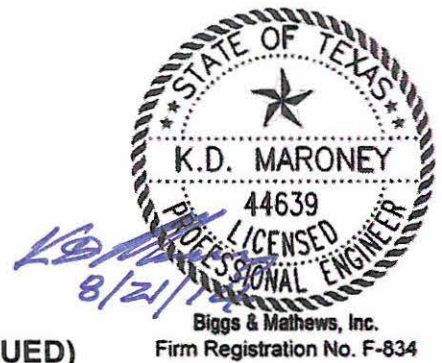
1 GEOTECHNICAL TESTING.....	D5-1
2 SUBSURFACE MATERIALS.....	D5-2
3 EARTHWORK	D5-4
4 CONSTRUCTION BELOW THE GROUNDWATER TABLE.....	D5-5
5 SETTLEMENT AND HEAVE ANALYSIS	D5-6
6 SLOPE STABILITY ANALYSES.....	D5-7
7 LINER CONSTRUCTION	D5-9
8 COVER CONSTRUCTION.....	D5-11

APPENDIX D5-A – SETTLEMENT/HEAVE ANALYSIS

APPENDIX D5-B – SLOPE STABILITY ANALYSES

ATTACHMENT D6 – LEACHATE AND CONTAMINATED WATER MANAGEMENT PLAN

1 INTRODUCTION	D6-1
2 LEACHATE MANAGEMENT	D6-2
3 CONTAMINATED WATER MANAGEMENT	D6-6
4 GAS CONDENSATE MANAGEMENT	D6-7



APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

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

ATTACHMENT D7 – LINER QUALITY CONTROL PLAN

1	INTRODUCTION	D7-1
2	LINER SYSTEM	D7-3
3	EARTHWORK	D7-5
4	COMPACTED SOIL LINER.....	D7-7
5	GEOMEMBRANE LINER	D7-11
6	LEACHATE COLLECTION SYSTEM.....	D7-19
7	PROTECTIVE COVER.....	D7-26
8	DOCUMENTATION	D7-28

APPENDIX D7-A – HIGHEST MEASURED GROUNDWATER ELEVATIONS

APPENDIX D7-B – GRI-GM13

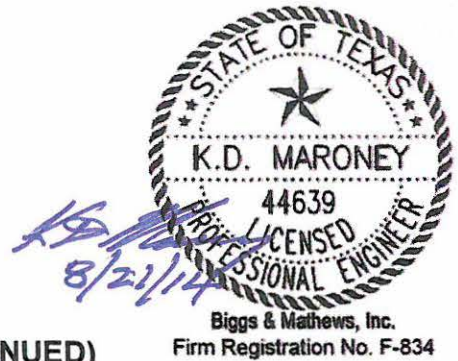
APPENDIX D7-C – LINER SYSTEM DETAILS

ATTACHMENT D8 – FINAL COVER QUALITY CONTROL PLAN

1	INTRODUCTION	D8-1
2	FINAL COVER SYSTEM.....	D8-3
3	INTERMEDIATE COVER AND GRADING	D8-5
4	INFILTRATION LAYER	D8-6
5	FLEXIBLE MEMBRANE COVER	D8-10
6	DRAINAGE/CUSHION LAYER	D8-18
7	EROSION LAYER	D8-22
8	DOCUMENTATION	D8-24

APPENDIX D8-A – GRI GM17

APPENDIX D8-B – GEOCOMPOSITE TRANSMISSIVITY CALCULATION



APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

VOLUME 4 OF 5

ATTACHMENT E – GEOLOGY REPORT

LIST OF TABLES	E-v
1 REGIONAL GEOLOGIC/HYDROGEOLOGIC INFORMATION	E-1
2 GEOLOGIC PROCESSES	E-3
3 REGIONAL AQUIFERS	E-6
4 SUBSURFACE INVESTIGATION REPORT	E-9
5 GEOTECHNICAL DATA	E-14
6 ARID EXEMPTION	E-22
7 REFERENCES	E-23
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	

ATTACHMENT F – GROUNDWATER SAMPLING AND ANALYSIS PLAN

GROUNDWATER MONITORING SYSTEM DESIGN CERTIFICATION	F-iii
1 GROUNDWATER MONITORING PROGRAM	F-1
2 OPERATIONAL CONSIDERATIONS FOR GROUNDWATER SYSTEM DESIGN	F-3
3 SUBTITLE D GROUNDWATER MONITORING SYSTEM	F-5
4 GROUNDWATER QUALITY	F-7
APPENDIX F1 – PROPOSED GROUNDWATER MONITORING SYSTEM	
APPENDIX F2 – GROUNDWATER SAMPLING AND ANALYSIS PLAN	



Biggs & Mathews, Inc.
Firm Registration No. F-834

APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

VOLUME 5 OF 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	REMEDATION PLAN	G-12
6	LFG CONTROL SYSTEM	G-13

APPENDIX G1 – LANDFILL GAS MONITORING PROBE PLAN

APPENDIX G2 – REPORTING AND RECORDING FORMS

APPENDIX G3 – LANDFILL GAS COLLECTION AND CONTROL SYSTEM PLAN

APPENDIX G4 – LANDFILL GAS GENERATION MODEL

APPENDIX G5 – LANDFILL GAS MONITORING PROBE BORING/COMPLETION LOGS

ATTACHMENT H – CLOSURE PLAN

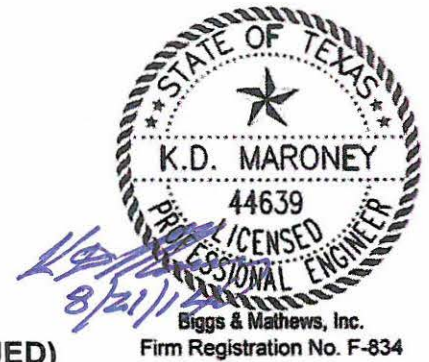
1	INTRODUCTION	H-1
2	FINAL COVER SYSTEM.....	H-2
3	CLOSURE PROCEDURES.....	H-3
4	CLOSURE SCHEDULE.....	H-5
5	CLOSURE COST ESTIMATE	H-8

APPENDIX H1 – FIGURES

APPENDIX H2 – FINAL COVER SYSTEM 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



APPLICATION MASTER TABLE OF CONTENTS (CONTINUED)

ATTACHMENT J – COST ESTIMATES FOR CLOSURE AND POSTCLOSURE CARE

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	

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-15
5 DETECTION AND PREVENTION OF DISPOSAL OF PROHIBITED WASTES	IV-18
6 GENERAL INSTRUCTIONS	IV-22
7 FIRE PROTECTION PLAN	IV-25
8 OPERATIONAL PROCEDURES	IV-30
APPENDIX IVA – LOAD INSPECTION REPORT	
APPENDIX IVB – REGULATED ASBESTOS-CONTAINING MATERIAL PLAN	
APPENDIX IVC – SPECIES PROTECTION PLAN	



Texas Commission on Environmental Quality

Permit or Registration Application for Municipal Solid Waste Facility

Part I

A. General Information

Facility Name:	130 Environmental Park			
Physical or Street Address (if available):	North of FM 1185 in Caldwell County, between U.S. Highway 183 and Homannville Trail.			
(City) (County)(State)(Zip Code):	Lockhart	Caldwell	TX	78644
(Area Code) Telephone Number:	770-720-2717			
Charter Number:	801836528			

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 ¹ :	130 Environmental Park, LLC			
Mailing Address:	134 Riverstone Terrace, Suite 203			
(City) (County)(State)(Zip Code):	Canton		GA	30114
(Area Code) Telephone Number:	(770) 720-2717			
(Area Code) FAX Number:	NA			
Charter Number:				

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:	National Registered Agents, Inc.			
Mailing Address:	1999 Bryan St. Ste. 900			
(City) (County)(State)(Zip Code):	Dallas	Dallas	TX	75201-3136
(Area Code) Telephone Number:	800-862-5438			
(Area Code) FAX Number:	281-286-5902			

Application Type:

<input checked="" type="checkbox"/> Permit	<input 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

¹ 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 type="checkbox"/> Other (Specify)		<input type="checkbox"/> Other (Specify)	
<input type="checkbox"/> Other (Specify)		<input type="checkbox"/> Other (Specify)	

Is this submittal part of a Consolidated Permit Processing request, in accordance with 30 TAC Chapter 33?

☐ Yes ☒ No

If yes, state the other TCEQ program authorizations requested.

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 new Type I Municipal Solid Waste Disposal facility to provide long-term waste disposal capacity for the individuals, businesses, and communities in Caldwell County and surrounding areas.

Does the application contain confidential Material? ☐ Yes ☒ 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.

If it is determined that an alternative language notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language. Electronic versions of the Spanish template examples are available from the TCEQ to help the applicant complete the publication in the alternative language.

Signature Page

I, Ernest Kaufmann
(Operator)

President and Manager of 130 Environmental Park, LLC
(Title)

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.

Signature: 

Date: 8-21-14

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

I, NA, hereby designate NA
(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.

NA
Printed or Typed Name of Operator or Principal Executive Officer

NA
Signature

SUBSCRIBED AND SWORN to before me by the said Ernest Kaufmann

On this 21st day of August, 2014

My commission expires on the 8th day of Jan., 2017




Notary Public, State of Georgia
Cherokee County

(Note: Application must be signed by the Operator & Seal of Notary Public)