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June 27, 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 Second NOD for Land Use Compatibility Determination and
Submittal of Complete Parts I, II, III, and IV Permit Application
Tracking No. 17458939 (17937410, 17978232, 17992596, 18005911);
CN604375972/RN106897036

Dear Mr. Odil:

This response to your second notice of deficiency letter addressed to Mr. Ernest Kaufmann, President and Manager of 130 Environmental Park, LLC, dated May 6, 2014, 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. Comment 8 of the first NOD requested that, in accordance with 30 TAC §330.61(b)(1), the Waste Acceptance Plan (WAP) include a description of the materials to be stored or processed. The submittal now provides this information in Part II, Section 2.1. While several of these storage and processing areas were identified on Drawing IIA.13, some could not be located on a site layout figure. Please be certain that all storage and processing areas are identified on a facility layout figure.

RESPONSE: *The locations of the additional material storage and processing areas were identified in Attachment B, Drawing B.2, Notes 3 through 6, in the previous submittal. The notes have been added to Drawing IIA.13 in this submittal.*

2. Comment 9 of the first NOD requested that the WAP include limiting parameters for waste in accordance with 30 TAC §330.61(b)(1). The response adds text to indicate that the facility "will not accept for storage, processing, or disposal any waste with a constituent or characteristic that could be a limiting parameter that may impact or influence the design and operation of the facility." This text is potentially contradictory

to the apparent intentions of the facility. For example, since industrial waste containing total petroleum hydrocarbons (TPH) at concentrations in excess of 1,500 mg/kg are Class 1, and Class 1 will not be accepted, this sentence could imply that materials containing TPH could not be accepted. The WAP indicates that Class 2 industrial wastes would be accepted, and these wastes could contain TPH. Furthermore, the language provided does not address the rule requirements. Please provide text within the WAP to indicate limiting parameters for waste. Possible examples of these, based on the wastes that the application indicates would be accepted and prohibited, include: a concentration of 1,500 mg/kg total petroleum hydrocarbons, the levels for Class 1 industrial solid waste provided in 30 TAC §335.521(a)(1), the presence of free liquids, the presence of regulated hazardous waste, the presence of polychlorinated biphenyls, the presence of radioactive waste, and the presence of chlorinated fluorocarbons.

RESPONSE: *Part II, Section 2.1 – Properties and Characteristics of Waste in Section 2 – Waste Acceptance Plan has been revised to indicate limiting parameters for waste to be accepted.*

3. Comment 18c of the first NOD requested an explanation of how the peak hour of facility operation and the percentages of daily site traffic during the analysis hour reported in Table 2 in Appendix IIC, Transportation Study were determined. Table 2 only indicates that these values were provided by 130 Environmental Park, LLC. The response indicates that detailed data are provided in the Appendix to the Transportation Study, but does not explain the source of the data. Please explain how these data were obtained by 130 Environmental Park, LLC.

RESPONSE: *The peak traffic hour for the facility and the percentages of daily site traffic during that analysis hour in Table 2, Appendix IIC, Traffic Impact Analysis, are based on the site traffic estimates on the first page of the Appendix at the back of the Traffic Impact Analysis. As described in 30 TAC §330.61(i)(3), the site traffic estimates are projections of the volume of traffic expected to be generated by the facility. While various other traffic numbers in the Traffic Impact Analysis (e.g., the volumes shown on Table 4, Table 5, and Figure 7) are based on actual traffic data (reported TxDOT historic traffic counts and automated traffic counts collected specifically for this Traffic Impact Analysis), the facility-related traffic volumes in the Analysis are only estimates of future traffic associated with the proposed facility (that does not currently exist) and do not include any actual traffic data.*

4. Comment 18f of the first NOD requested the response from the Texas Department of Transportation (TxDOT) to your letter and the Transportation Study to document coordination in accordance with 30 TAC §330.61(i)(4) and to confirm their approval of proposed road improvements. The response indicates that a response has not been received. We continue to await this response.

RESPONSE: *The response letter from TxDOT, dated May 28, 2014 has been received and is included in Appendix IIC.*

5. Comment 23 of the first NOD requested that, in accordance with 30 TAC §330.553(b)(5), a copy of the Wetlands Demonstration (Appendix IID.3) and any necessary supporting information be provided to the United States Army Corps of Engineers (USACE) for their concurrence with demonstrations required under 30 TAC §330.553(b)(1) through (4). The response indicates that this information was submitted to the USACE on September 6, 2013. Please provide the USACE response letter.

RESPONSE: A Nationwide Permit 14 (NWP 14), dated February 24, 2014 was submitted to the Fort Worth District, USACE, on that date. Authorization from the USACE, dated June 20, 2014 is included with the permit in Appendix IID.

6. Comment 25c of the first NOD requested response letters to document coordination with the United States Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD) in accordance with 30 TAC §330.61(n)(2) and to confirm their approval of the Threatened and Endangered Species Review report and proposed Species Protection Plan. Your response indicates that USFWS has not responded. We continue to await this response. Your response provides a response from TPWD, which includes recommendations. Please explain how you will address these recommendations.

RESPONSE: 30 TAC §330.61(n)(2) provides, in part, "The United States Fish and Wildlife Service and the Texas Parks and Wildlife Department shall be contacted for locations and specific data relating to endangered and threatened species in Texas." As stated in the Threatened and Endangered Species Review report, at page IIE-20 of Appendix IIE ("Endangered or Threatened Species Documentation"), the biological assessment conducted by Halff Associates included a review of current species lists from Texas Parks and Wildlife Department and United States Fish and Wildlife Service for Caldwell County, Texas and information from the Texas Natural Diversity Database, which is a record of occurrences (sorted per USGS quadrangle) of rare plant and animal resources that is based upon the best information available to TPWD. Appendix IIE also includes correspondence dated August 30, 2013 to USFWS and TPWD, which included copies of the Wildlife Habitat Assessment Program Questionnaire for Threatened and Endangered Species and Threatened and Endangered Species Review report prepared by Halff Associates. These contacts with USFWS and TPWD satisfy the requirements of 330.61(n)(2). 130 Environmental Park, LLC does not expect additional communication with USFWS during the MSW permitting process.

A November 11, 2013 letter from TPWD to Halff Associates contains several recommendations, some of which relate to endangered and/or threatened species, most of which do not. In its MSW permit application, 130 Environmental Park, LLC has addressed matters covered in the letter to the extent required by applicable provisions of TCEQ's Chapter 330 rules. Regarding Vegetation Impacts, the 130 Environmental Park Landfill project has been planned and designed and will be constructed to avoid and preserve most existing trees on the property. Drawing IIA.24 in Part II, Appendix IIA (Facility Screening Plan) shows existing wooded areas that are intended to be left undisturbed by facility development. That same drawing shows the location (along the

north and northeast sides of the facility) of a screening berm that will be constructed and planted with vegetation, including native species. Regarding the Migratory Bird Treaty Act, no potentially suitable habitat exists within the permit boundary for any migratory bird species listed as either endangered or threatened. As addressed in Part IV, Appendix IVC – Species Protection Plan, suitable habitat for the wood stork, a migratory bird species that is a state-listed threatened species, does exist at the SCS Reservoir Site 21 south of the site. Although this area will not be impacted by the proposed facility, the Species Protection Plan addresses the wood stork and includes provisions for species identification cards for employees and construction crews and signage at the Gate House with instructions on responding to a sighting: avoid disturbance of the animal and notify the general manager, who will contact a biologist with a TPWD scientific collection permit to determine and implement any appropriate action. Regarding state-listed threatened species and TPWD County Lists of rare species, the Threatened and Endangered Species Review report in Part II, Appendix IIE, states that the biological assessment conducted by Halff Associates included a review of information from the Texas Natural Diversity Database. As noted in TPWD's November 11, 2013 letter, "According to the TXNDD no known occurrences of threatened or endangered species have been recorded near (within 1.5 miles) of the proposed project." Also as stated in the Threatened and Endangered Species Review report, the biological assessment conducted by Halff Associates included a review of current species lists from TPWD for Caldwell County and a field survey of the project area to identify areas of suitable habitat for endangered and threatened species. The Species Protection Plan in Part IV, Appendix IVC, includes avoidance, minimization, and mitigation strategies for the endangered and threatened species with the potential to occur within the site and/or the property. These include informing employees and construction crews of such species, instructions to avoid disturbance of the species if encountered, pre-construction surveys conducted by a biologist with a TPWD scientific collection permit and contact with such a biologist following a reported sighting of any of the endangered and threatened species that may occur on the site.

7. Comment 27 of the first NOD requested a response letter from the Capital Area Council of Governments (CAPCOG) to document coordination in accordance with 30 TAC §330.61(p). The response indicates that CAPCOG has indicated verbally that it will respond once they have received the revised submittal. We continue to await their response.

RESPONSE: *In a meeting on Thursday, May 22, 2014, following the unanimous recommendation of its Conformance Review Subcommittee that the proposed 130 Environmental Park facility conforms to the Regional Solid Waste Management Plan, the Capital Area Council of Governments (CAPCOG), Solid Waste Advisory Committee (SWAC) voted to recommend the facility to the Executive Committee for final decision at their July or August meeting. A copy of the draft minutes of the SWAC meeting is provided in Appendix II I to document ongoing coordination in accordance with 30 TAC §330.61(p); see Item 9 on page II I-i-5.*

8. In accordance with 30 TAC §281.5(6), please provide an address for the on-site easement holder on the land owner list in Part I, Appendix IB.

RESPONSE: 30 TAC §281.5(6) requires “a list of adjacent and potentially affected landowners and their addresses along with a map locating the property owned by these persons”. 30 TAC §330.59(c)(3)(B) requires a land ownership map with accompanying landowners list. Subsection (B) provides “The [landowners] list shall comply with the requirements of §281.5 of this title, and shall include all property owners within 1/4 mile of the facility, and all mineral interest ownership under the facility. Property and mineral interest owners' names and mailing addresses derived from the real property appraisal records as listed on the date that the application is filed will comply with this paragraph.” The Land Owners List on Part I, Appendix IB, page IB-1 satisfies these requirements and was derived from the real property appraisal records of the Caldwell County Appraisal District. Those records do not include information on names or addresses of holders of easements on the site.

9. Please address the following items regarding Section 10.3.2 of the General Geology and Soils Statement:

- a. The descriptions of Stratum II and Stratum III both state that there was “very little evidence” of fractures or slickensides. Please revise the statements to clarify whether fractures and slickensides do exist in the strata at the site.

RESPONSE: The statement in Part II, Section 10.3.2 has been revised as follows: “No evidence of fractures was observed. Evidence of slickensides was observed in only one boring, BME-24.”, and the statement in Part II, Section 10.3.3 has been revised as follows: “No evidence of fractures or slickensides was observed in Stratum III.”

- b. The description of Stratum II references data sheets in Figures E5-19 through E5-29 in Appendix E5. Please clarify that Appendix E5 is an appendix to the Geology Report, in Attachment E to Part III of the application.

RESPONSE: Language has been added to clarify for the reader that the information can be found in Attachment E of Part III.

- c. The description of Stratum III references the same data sheets in Figures E5-19 through E5-29 in Appendix E5 that were referenced in the Stratum II description. Please clarify which of the data sheets present data for Stratum II, and which for Stratum III. Also, please revise the statements regarding permeabilities of Stratum II and Stratum III accordingly.

RESPONSE: References for the exact data sheet for each stratum has been included in Sections 10.3.2 and 10.3.3.

10. In our technical review letter dated November 25, 2013, regarding the initial application for a land-use only determination, we requested a larger scale geologic map in the area of the proposed landfill to show clearly the locations of mapped faults and their proximity to the landfill. The response included a replacement of Drawing IIA.9, Geologic Vicinity Map, from different sources, but at approximately the same scale as the map in the initial application. Please provide a larger scale map (an

enlargement) in the area of the landfill, extending to a sufficient distance from the proposed facility boundary to show any faults within the distances noted in 30 TAC §330.555.

RESPONSE: *As requested, a larger scale map has been included. For clarity, the proposed permit boundary and footprint have been included on the figure.*

11. Please address the following comments regarding Drawing IIA.10, Seismic Impact Zone:

- a. We were unable to locate the source of information for the map using the URL reported on the drawing. Please provide more information about the source of the map.

RESPONSE: *The Seismic Impact Zone maps (Drawings IIA.10 and E4.1) have been revised per recent discussions with TCEQ, the screen-shot map, note and source have been changed.*

- b. Revise the legend to indicate that the drawing shows contours of peak ground acceleration in units of percent of gravity (% g). Please also delete the note beneath the legend, or revise the note for accuracy.

RESPONSE: *The Seismic Impact Zone maps (Drawings IIA.10 and E4.1) have been revised per recent discussions with TCEQ, the screen-shot map, note and source have been changed.*

PART III, APPENDIX B – GENERAL FACILITY DESIGN

12. In Appendix B, please provide generalized construction details, including dimensions, capacity, materials used, etc., as appropriate, for the leachate storage area, citizen's convenience center, and reusable materials staging area for non-inert materials in accordance with 30 TAC §330.63(b)(2)(D), or provide a reference within the appendix that explains where they are found.

RESPONSE: *Pages B-5 and B-6 have been revised to reference the location of the requested information and Drawings B.6 and B.7 have been added to Appendix B1 to provide additional details.*

13. In Appendix B, please provide generalized construction details for slabs and subsurface supports for the leachate storage area in accordance with 30 TAC §330.63(b)(2)(E), or provide a reference within the appendix that explains where they are found.

RESPONSE: *Page B-6 has been revised to reference the location of the requested information and Drawing B.7 has been added to Appendix B1 to provide additional details.*

14. In Appendix B, please provide engineering designs details for containment structures providing containment and run-on/runoff control for the reusable materials staging area for non-inert materials in accordance with 30 TAC §330.63(b)(2)(F), or provide a reference within the appendix that explains where they are found.

RESPONSE: *Page B-5 has been revised to reference the location of the requested information and Drawing B.6 has been added to Appendix B1 to provide additional details.*

15. In Appendix B1, the drawing numbers on the table of contents do not match the numbers on the drawings. Also, Drawing B.4 does not appear to provide leachate storage schematic details as indicated on the table of contents for Drawing B1.4. Please revise this information for consistency and accuracy.

RESPONSE: *Appendix B1 page B1-ii has been revised to be consistent with the drawing numbers.*

16. Appendix B, Chapter 3 discusses sanitation to address the requirements of 30 TAC §330.63(b)(3). The discussion of the reusable materials staging area does not include a discussion of non-inert materials such as asphalt, which Chapter 2 indicates may be stockpiled. Please explain in Chapter 3 how surface drainage control will be provided for non-inert reusable materials.

RESPONSE: *Section 3 has been revised to include information about surface drainage controls for non-inert materials.*

PART III, ATTACHMENT C – FACILITY SURFACE WATER DRAINAGE REPORT

17. 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. Drawings C1-A-1 through -4 illustrate pre- and post-development drainage patterns. Page C1-A-5 provides summary tables for pre- and post-development discharge rates, volumes, and velocities. Please provide units for discharges in the first table on page C1-A-5. 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. The tabulated information indicates arguably adverse changes to drainage at permit boundary discharge points CP1, CP7, and CP8.

- a. It appears that discharges from CP1 travel to a natural drainage feature outside the permit boundary that returns flow to the facility at CP2. If this is the case, this change would be mitigated by return to the facility, if eventual discharges from the facility illustrated no adverse change. Please provide justification in the discussion of the comparison of pre- and post-development drainage conditions (Attachment C1, Chapter 7) that changes calculated for CP1 are not adverse.

RESPONSE: *Attachment C1, Section 7 – Existing/Postdevelopment Comparison has been revised to clarify that drainage changes at CP1 resulting from the development of the 130 Environmental Park Landfill facility will not result in any adverse alteration of existing drainage patterns.*

- b. While discharge rates at CP7 and CP8 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, even if the property is owned by the applicant, without a drainage easement. A drainage easement should be acquired for areas between CP5 through CP8 and CP9 through CP10. Please illustrate drainage easements on appropriate figures and expand the discussion of the comparison of pre- and post-development drainage conditions (Attachment C1, Chapter 7) to reflect the drainage easement and its involvement in the demonstration of no adverse change to drainage.

RESPONSE: *Attachment C1, Section 7 has been revised to clarify that drainage changes at CP5 through CP8 resulting from the development of the 130 Environmental Park Landfill facility will not result in any adverse alteration of existing drainage patterns. In addition, CP9 and CP10 (and CP11) are off-site comparison points located south of the site at culverts under FM1185; the drainage analysis shows no changes between the existing and postdevelopment drainage conditions at these points. As a result, no drainage easements are necessary.*

18. In accordance with 30 TAC §330.305(g), the storage, treatment, and disposal of contaminated surface water and groundwater must be performed in accordance with 30 TAC §330.207. While this is largely addressed in Attachment D6, Chapter 3, this information does not appear to include contaminated groundwater. Please expand this information to include contaminated groundwater.

RESPONSE: *Attachment D6, Section 3.1 has been revised to include contaminated groundwater.*

19. Design drawings for design features, required under 30 TAC §330.63(c)(1)(B), are provided in Attachment C3; however, no designs were found for energy dissipators at the bottom of chutes. Please provide them or explain why dissipators will not be needed.

RESPONSE: *Attachment C3 has been revised to include energy dissipators at the bottom of chutes.*

20. 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. In Attachment C2, Chapter 5, the second paragraph indicates that the

proposed entrance road crosses the Unnamed Tributary and Tributary B, as identified in Drawing C2-A-4. Please address the following concerns:

- a. In Attachment C2, Chapter 5, the second paragraph goes on to reference a Tributary A crossing. Please correct this apparent typographical error or explain if there is a third crossing.

RESPONSE: *Attachment C2 has been revised to clarify that the entrance road crosses the unnamed tributary to Dry Creek and Tributary B, as labeled in C2.*

- b. In Attachment C2, Chapter 5, the second paragraph notes that the 100-year floodplain overtops the road on the Tributary A crossing. Again, this is suspected to be intended to refer to the Tributary B crossing. Regardless, explain how the overtopped road will allow for all weather operations and access required under 30 TAC §330.63(d)(4)(A).

RESPONSE: *Attachment C2 has been revised to prevent the overtopping of the entrance road during the 100-year storm event at both crossings, Tributary B and the unnamed tributary to Dry Creek. In addition, a comparison of existing/postdeveloped water surface elevations at cross-sections upstream of each crossing has been added to C2.*

- c. In Attachment B, Chapter 4, the second paragraph indicates that the site entrance road will be constructed pursuant to a Section 404 Nationwide Permit. Please provide an authorization letter from the US Army Corps of Engineers, or explain how the road construction is exempt from notification.

RESPONSE: *A Section 404 Permit from the US Army Corps of Engineers has been obtained. Please see Part II, Appendix IID.*

- d. In accordance with 30 TAC §330.63(c)(2)(D)(i), demonstrate that the proposed construction has the approval from the governmental entity with jurisdiction under Texas Water Code, §16.236, as implemented by 30 TAC Chapter 301.

RESPONSE: *30 TAC §301.2 (3) (B) specifically excludes the culverts for the entrance road from 30 TAC Chapter 301.*

- e. In accordance with 30 TAC §330.63(c)(2)(D)(ii), demonstrate that the proposed construction has a floodplain development permit from the city, county, or other agency with jurisdiction over the proposed improvements.

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.*

In addition to the previously mentioned revisions, the revisions outlined below have been made to Part III, Attachment C.

- The HEC-HMS results on C1-B-23 through C1-B-25 were showing results from the wrong model scenario and have been replaced with results from the correct scenario.
- The diameter of the pipe culvert on C1-C-14 was incorrectly labeled as 1 foot and has been replaced with the correct diameter of 1.25 feet, in agreement with the analysis and Attachment C3.
- The width and elevation of the spillway on C1-C-18 was incorrectly labeled 5 feet and 558 feet, respectively, and has been replaced with the correct width and elevation of 10 feet and 556.25 feet, respectively, in agreement with the analysis and Attachment C3.
- An error in the postdeveloped hydrologic model relating to the roughness coefficient for the Pond 4 outlet was corrected. The original submission used an incorrect coefficient of 0.13, which has been replaced with an analysis using the correct coefficient of 0.013. This correction resulted in fewer culverts being required for the Pond 4 outlet (4 barrels instead of 10), a slight decrease in discharge and velocity at CP6, and an increase in peak discharge of 0.1 cfs at CP12. These revisions have been incorporated where appropriate.
- Attachment C3 has been amended to include erosion protection downstream of each pond outlet.
- The table heading on C1-D-8 was incorrectly labeled "25-Year Peak Flow", and has been replaced with the correct heading of "100-Year Peak Flow".
- Attachment C2-A-1 and Part II, Drawing A.11, have been revised by leaving the original label "Soil Conservation Service Site 14 Reservoir" on the FEMA FIRM and adding a note that the label is an apparent error and should be "Soil Conservation Service Site 21 Reservoir".

PART III, ATTACHMENT D – WASTE MANAGEMENT UNIT DESIGN

21. In Attachment D, Section 2.2, please expand the information regarding the Reusable Materials Staging Area. Specifically, clarify what non-inert materials may be stored and address, as applicable, the requirements of 30 TAC §330.63(d)(1)(A) and (B).

RESPONSE: *Attachment D, Section 2.2 has been revised to clarify which non-inert materials may be stored and to address the requirements of 30 TAC §330.63(d)(1)(A) and (B).*

22. Construction details are provided in Attachment D3 to address requirements of 30 TAC §330.63(d)(4). Drawing D3.2 provides a Liner Anchor Trench detail. This detail includes a gas collection pipe within the liner protective cover. This feature is also illustrated on Drawing D3.8. Please provide or direct staff to text describing this feature. Provide greater detail to clarify whether one "blind flange for future connection" will be provided at the location illustrated on Drawing D3.1, Liner Plan, or at what frequency they will be provided if there will be multiple pipes. Please explain

to what the blind flange will be connected in the future. Explain how pipes within the liner system are not detrimental to the liner system.

RESPONSE: *Attachment D7, Sections 2.1 and 7 have been revised to describe the gas collection trench materials and installation. Attachment G, Section 6.1 has been revised to explain the future use of the gas collection trench. Drawings D3.2, D3.8, D7-C.2 and H2.2 have been revised to clarify the location and number of the collector pipes. The 6-inch diameter solid pipes with blind flanges for future connections will be installed at 100 ft. intervals around the perimeter as shown on Detail L2/D3.2. Attachment D7 Section 6 has been revised to include material and placement requirements for the gas collection trench. Protection of the liner system is addressed in Section 6A.3.*

23. Construction details are provided in Attachment D3 to address requirements of 30 TAC §330.63(d)(4). Drawing D3.8 provides Final Cover details for the sideslope and the topslope. While a geocomposite drainage layer will be provided on final cover sideslopes, only a "geotextile cushion layer" will be provided on topslopes. Please explain the difference between these layers and how the "geotextile cushion layer" will prevent saturation of overlying protective cover soils.

RESPONSE: *Attachment D8, Section 2.1 has been revised to explain the difference between the drainage layer and cushion layer and why the cushion layer does not have to prevent saturation of the overlying protective cover soils.*

24. To meet the requirements of 30 TAC §330.63(d)(4)(E), Attachment D2 provides waste disposal unit cross sections. Please extend these cross sections to extend to the permit boundary. The cross sections are introduced in Attachment D, Section 3.5. Section 3.5 indicates that cross sections illustrate the top of the levee. Levees are not shown on the cross sections and do not appear to be proposed at the facility. Please provide for levees throughout the application if they are proposed, or delete this text.

RESPONSE: *Extending the sections shown on Drawings D2.2 through D2.7 to the facility boundary would require the sections to be redrawn at a much smaller scale. Since much of the required information that is provided on the sections would be difficult to read at the smaller scale, we have inserted Drawing D2.2 to show all of the sections extended through the facility boundary and have kept the existing sections to keep the details at a legible scale. Drawings D2.2 through D2.9 have been renumbered as D2.3 through D2.10. Attachment D, Section 3.5 has been revised to delete the reference to levees.*

25. Attachment D6, Section 2.2.6 indicates that sump pumps will maintain leachate at levels less than 48 inches in the three-foot-deep sumps. The liner system for this facility includes a geocomposite drainage material. Calculations to demonstrate the adequacy of this liner component assumes unconfined flow and no head at the discharge point to sumps. Please indicate in this section, and all appropriate sections, that sump pumps will be set to maintain leachate below the lip of the sump. Brief excursions above the sump may occur, but never in excess of 12 inches above the lip of the sump.

RESPONSE: *Attachment D6, Section 2.2.6 has been revised to clarify that the pumps will be operated to maintain the leachate at or below the top of the sumps which is 36 inches above the bottom of the sumps and that the maximum allowable leachate level will be 48 inches above the bottom of the sumps.*

26. In accordance with 30 TAC §330.337(b), the application must demonstrate that the liner will not undergo uplift. Attachment D7, Section 3.3 indicates that the highest measured groundwater elevations indicate that the excavation is above the highest measured groundwater elevations. Drawing D7-A.1 is provided to illustrate this. Each piezometer illustrated within the waste unit was dry. Please provide a piezometer depth at each point to illustrate that it was installed beneath the excavation at that point.

RESPONSE: *Attachment D3, Drawing D3.2, and Attachment D7, Drawing D7-A.1 have been revised to include the piezometer depths.*

27. In accordance with 30 TAC §330.339(a)(1), please provide liner details that include slopes and compaction expressed as percent of lab density.

RESPONSE: *Attachment D3, Drawing D3.2, and Attachment D7, Drawing D7-C.2 have been revised to include the requested information.*

28. Please provide cross section details for the overexcavation and recompaction of in-situ soils, or the compaction of soils from a borrow source, showing the slope, widths, and thicknesses of compaction lifts, in accordance with 30 TAC §330.339(b)(2)(A).

RESPONSE: *The overexcavation and recompaction of in-situ soils is not proposed. Attachment 3, Drawing 3.2 and Attachment D7, Drawing D7-C.2 have been revised to include the requested information about soils from a borrow source.*

29. To address the requirements of 30 TAC §330.337(d), Appendix D6-B includes Hydrologic Evaluation of Landfill Performance (HELP) modeling information. Page D6-B-4 provides a summary of the HELP modeling input and results values.

- a. Please provide a discussion of why the waste layer was modeled as a vertical percolation layer and a two-foot-thick lateral drainage layer.

RESPONSE: *Attachment D6, Appendix D6-B, page D6-B-3 has been revised to explain why the waste layer was modeled as a vertical percolation layer and a two-foot-thick lateral drainage layer.*

- b. Please provide a discussion of why the protective cover layer of the liner system was modeled as 0.08 feet of barrier soil and 1.92 feet of vertical percolation.

RESPONSE: *Attachment D6, Appendix D6-B, page D6-B-3 has been revised to explain why the protective cover layer of the liner system was modeled as 0.08 feet of barrier soil and 1.92 feet of vertical percolation.*

- c. The table provides an average daily head on the liner for each modeled scenario. Please provide maximum daily head on the liner.

RESPONSE: *Attachment D6, Appendix D6-B, page D6-B-4 has been revised to include the maximum daily head on the liner.*

30. Design information for the leachate collection system geocomposite drainage layer provided in Attachments D3 and D6 does not appear to specify a conclusive design statement. The analysis in Appendix D6-A proposes six cases for evaluation. Appendix D6-B presents leachate production rates using the HELP model for each case. Thicknesses and transmissivities are presented for each scenario. While Table D-2 in Attachment D indicates that the geocomposite drainage layer will have a 300-mil nominal thickness, it is unclear from the information provided in Appendix D6-A how this value was selected and the final design transmissivity. Please provide these conclusions within Appendix D6-A or another appropriate location in the application. Include these design conditions on all appropriate figures and in the Liner Quality Control Plan (LQCP) provided in Attachment D7.

RESPONSE: *Attachment D6, Appendix D6-A, page D6-A-3 has been revised to clarify the minimum thickness and transmissivity of the geocomposite. Appendix D6-A, pages D6-A-1 through D6-A-8, and Appendix D6-B have been revised to be use the minimum thickness and transmissivity in the design calculations. Attachment D3, Drawing D3.2 and Attachment D7, Drawing D7-C.2 have been revised to include the minimum thickness and transmissivity of the geocomposite.*

31. In accordance with 30 TAC §330.339(c)(3), please indicate that the amount of compaction of clay liners will be expressed as a percentage of a maximum dry density based on a compaction test specified by a licensed engineer.

RESPONSE: *Attachment D7, Section 4.5 has been revised to clarify that the liner must be compacted to a minimum of 95 percent of the maximum dry density determined by the standard Proctor Test (ASTM D 698).*

32. In accordance with 30 TAC §330.339(c)(9), please indicate that all soil tests will be completed before installing the leachate collection system or protective cover.

RESPONSE: *Attachment D7, Section 4.8.2 has been revised to include the requested information.*

33. In accordance with 30 TAC §330.339(d), please indicate that the amount of compaction of clay liners will be expressed as a percentage of a maximum dry density based on a compaction test specified by a licensed engineer.

RESPONSE: *Attachment D7, Section 4.5 paragraph 2 addresses the amount of compaction required for the soil liner.*

34. Please review the second paragraph in Section 5.5.3 on page D7-16 and the second paragraph under "Destructive Tests" on page D7-17. It appears that the references to Table D7-9 should be to Table D7-6. Please correct or explain.

RESPONSE: *Attachment D7, Sections 5.5.3 and 5.5.4 have been revised to correct the reference to Table D7-6.*

35. Section 5.5.3 of the LQCP discusses criteria for trial welds. In accordance with the July 1, 1994 MSW Liner Construction and Testing Handbook (Liner Handbook), trial welds should also be made: each occurrence of significantly different environmental conditions (such as temperature, humidity, or dust), any time a machine is turned off for more than 30 minutes, and when seaming different geomembranes (such as at tie-ins and when transitioning from smooth to textured). Please provide for these criteria in the LQCP, provided in Attachment D7, and in the Final Cover Quality Control Plan (FCQCP), provided in Attachment D8.

RESPONSE: *Attachment D7, Section 5.5.3 and Attachment D8, Section 5.5.3 have been revised to include the requested criteria.*

36. Section 5.5.4 of the LQCP discusses nondestructive geomembrane seam testing. The second paragraph indicates when vacuum box testing will be performed. This text indicates 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. Please consider changing this language in the LQCP and FCQCP to reflect the Liner Handbook language.

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

37. Section 5.5.5 of the LQCP discusses thickness verification. In accordance with the Liner Handbook, field thickness testing of the leading edge of each panel must be performed. Please strike "unless thickness conformance tests are performed at a frequency of 1 per 50,000 sf" from the first sentence of this section. Also, note that the average of readings must exceed the nominal thickness for smooth geomembrane and 95% of the nominal thickness for textured geomembrane, as noted in the GRI materials provided in Appendix D7- B. Provide for these field thickness testing criteria in the FCQCP.

RESPONSE: *The July 1, 1994 MSW Liner Construction and Testing Handbook (Liner Handbook) is not recognized by the TCEQ as a current design guide because some of the specified tests and methods are outdated. Laboratory thickness testing at a rate of 1 per 50,000 sf is a better method of verifying the material thickness than field testing each panel because it is performed in accordance with an ASTM standard procedure in a controlled environment. Conversely, there is not a standard procedure for field thickness measurements and the results can be influenced by the outdoor temperatures. For these reasons, the TCEQ has approved the additional laboratory thickness testing as an alternative to field testing on other permits.*

Attachment D7, Section 5.5.5 has been revised to make the thickness criteria consistent with GRI-GM13. Attachment D8, Section 5 has been revised to include Section 5.5.5 which provides thickness criteria.

PART III, ATTACHMENT E – GEOLOGY REPORT

38. The second paragraph in Section 1.2, mentions the contact between Midway and overlying Wilcox strata is east of the site, and references Drawing E1-1. Please label the contact on the drawing, or provide a separate drawing of the facility and surroundings at a larger scale that will make it easier to spot the feature mentioned in the text.

RESPONSE: The contact between the Midway and the overlying Wilcox strata has been labeled on Figure E1-1.

39. Please identify the source of the historical aerial photographs listed in Section 2.1 that were investigated for evidence of faulting.

RESPONSE: Google Earth has been included as the source of the historical aerial photographs in Section 2.1.

40. In Section 2.1, identify the licensed professional geoscientist who performed the "walkover" part of the investigation for evidence of faults.

RESPONSE: Section 2.1 has been revised to name the licensed professional geoscientist who performed the walkover of the site to investigate for evidence of faulting.

41. Please address the following comments regarding Figure E4-1, Seismic Impact Zone:

- a. We were unable to locate the source of information for the map using the URL reported on the drawing. Please provide more information about the source of the map.

RESPONSE: The Seismic Impact Zone maps (Drawings IIA.10 and E4.1) have been revised per recent discussions with TCEQ, the screen-shot map, note and source have been changed.

- b. Revise the legend to indicate that the drawing shows contours of peak ground acceleration in units of percent of gravity (% g). Please also delete the note beneath the legend, or revise the note for accuracy.

RESPONSE: The Seismic Impact Zone maps (Drawings IIA.10 and E4.1) have been revised per recent discussions with TCEQ, the screen-shot map, note and source have been changed.

42. Please address the following comments regarding Drawing E4-2, Locations of Oil and Gas Wells:

- a. Explain in the legend the meaning of the numbers next to each well symbol on the drawing.

RESPONSE: *The numbers in question are from the Railroad Commission API numbering system and were copied with the screenshot of the RRC interactive map. The RRC map display overview states: "In general, the well number is displayed to the right of the well symbol. Below the well number are the last 5 digits of the API number." and "At this time, not all of the historic API numbers have been identified in the Geographic Information System." Since the purpose of the Drawing E4-2 map is to identify the well locations, these numbers serve no purpose and have been removed for clarity.*

- b. Add a narrative to Attachment E referencing the drawing and explaining the significance of the information.

RESPONSE: *A reference to the drawing has been added to Section 2.1 following the statement that there is no accumulation of oil and gas beneath the site.*

43. In the last paragraph of Section 2.1 state that the faults in the area predate the Holocene epoch, to clarify that the fault age criterion described in the second paragraph of Section 2.1 was met.

RESPONSE: *The last paragraph of Section 2.1 has been revised as requested.*

44. We were uncertain where to go on the websites referenced in Section 3.4 as the source of area water well information. Please provide exact website URLs in Section 3.4 for the locations of the water well records that were examined for this application.

RESPONSE: *Unfortunately, static, dependable URLs for the website sub-pages where the records were found are not available. There is no guarantee that even the main agency website URL that is listed in the permit application will remain unchanged, but typically if that is revised the user is automatically rerouted to the new one. In our experience all of these websites have changed the interactive search method within the last year and we have no confidence that the URLs will be correct at any point in the future as we have no control over the websites involved, which is why we did not include them in the application. However, for your use and information on May 16, 2014 the URLs we arrived at when working our way through each agency website to the records are provided below. We make no assertion that the same view will be available on another day. It would not be useful to provide these URLs within the application as they are dated and likely to change; therefore, no change was made in response to this comment.*

TWDB: *http://wiid.twdb.state.tx.us/ims/wwwm_drl/viewer.htm?appno=1 – This website page is the main interactive map screen. Search or zoom interactively using the controls on the left to find the records of interest – the URL does not change as you zoom and move within the map. Multiple layers can be visible at one time but only the*

records in the layers selected as active will appear below the map where the individual records can be selected for viewing. Only one layer can be active at a time.

TCEQ: <http://tceq4apmgwebp1.tceq.texas.gov:8080/waterwellpublic/> – This website page is the main interactive map screen. Search or zoom interactively using the controls on the left to find the records of interest – the URL doesn't change as you zoom and move within the map. When "State Water Well Reports" is selected in the dropdown menu under WW Reports (on the top right) it will return a bulk file containing all of those records, grouped by grid number or, as in this case, by county. The only way to determine well locations is to review each well installation and plugging report and decide whether there is sufficient information to determine a location. No well records or plugging reports were found within the grid numbers associated with the one-mile radius of the 130 Environmental Park.

USGS: <http://maps.waterdata.usgs.gov/mapper/> – This website page is the main interactive map screen, you can search by location or zoom interactively using the controls to get to the area of interest – the URL doesn't change as you zoom and move within the map. Select "Groundwater Sites" on the left and turn on active and inactive sites.

PCCD: <http://www.pccd.org/PCCD%20map%20viewer.html> – Again this is the main interactive map screen, and the URL changes to:

[http://www.arcgis.com/home/webmap/viewer.html?
webmap=869531b3eb5f4794b77ebd12b55b6255&extent=-97.7402,29.737,-
97.3467,29.9133](http://www.arcgis.com/home/webmap/viewer.html?webmap=869531b3eb5f4794b77ebd12b55b6255&extent=-97.7402,29.737,-97.3467,29.9133)

when you click on "View Larger Map", which is required to see the control panel on the left. Use the controls to move to the area of interest and click on any icon to see a pop-up of the associated well data.

45. The first paragraph of Section 4 states that geologic strata have been characterized to depths of more than 100 feet below ground surface and up to 35 feet below the elevation of the deepest excavation (EDE), whereas Section 4.1.1 indicates that the deepest boring reached a depth of 130 feet and Table E - 4 indicates that borings were advanced to depths of almost 46 feet below the EDE. Please revise the text and tables as needed to present accurate and consistent information.

RESPONSE: *The first paragraph of Section 4 has been revised as follows: Geologic strata have been characterized to depth of more than 100 feet (bgs) deep and up to approximately 45 feet below the elevation of the deepest excavation.*

46. The second paragraph of Section 4 mentions that installation, abandonment, and plugging of borings were performed in accordance with TCEQ rules. Please provide details about how borings were plugged, and information about State of Texas Well Reports and State of Texas Plugging Reports required by 16 TAC §76.70. Please include the information in the application, reference the information in the text, and expand Tables E-4 (borings) and E-9 (piezometers) to identify the starting page

number in the application for the applicable well report and plugging report for each boring and piezometer.

RESPONSE: *The following text has been added to Section 4.1.2 Site Exploration in the first paragraph under Borings, "On completion boreholes were pressure-grouted from the bottom up with bentonite grout using the tremie method where no piezometer was installed." and in the first paragraph under Piezometer Installation "Drillers reports were submitted to TDLR in accordance with the requirements of 16 TAC §76.70". While the method used for these borings is identical to the requirements of 16 TAC §76.104, which describes plugging requirements for wells, no separate plugging report for borings where wells are not installed is required. None of the piezometers installed on-site have been plugged to date. The piezometer data, including the page numbers of the logs, has been added to Table E-4.*

47. In Section 4.1.2, reference the boring logs in Appendix E-2.

RESPONSE: *A reference to the boring logs in Appendix E2 has been added to Section 4.1.2 as requested.*

48. In Section 4.1.2, identify the licensed professional geoscientist familiar with the geology of the area who supervised drilling operations.

RESPONSE: *Section 4.1.2 has been revised to name the licensed professional geoscientist who supervised the drilling operations.*

49. Add a column to Table E-4 indicating the starting page number of each boring log in Appendix E-2.

RESPONSE: *A column has been added to Table E-4 to provide the starting page number of each boring log in Appendix E2.*

50. Please include boring and completion logs for piezometers in Appendix E-2, reference them in the discussion of piezometers in Section 4.1.2, and add a column to Table E-9 indicating the starting page number of each log in the appendix.

RESPONSE: *Boring logs for piezometers are provided in Appendix E2, referenced in the Piezometer discussion in Section 4.1.2, and added to Table E-4 - Summary of Borings, including a reference to the first page number of each piezometer log.*

51. Add information to the legend of Figure E2-2, Boring and Piezometer Location Plan explaining the dual piezometer labels at some locations, and the "S" designation. We have assumed that the "S" designation in piezometer labels refers to the shallow piezometer of a shallow and deep piezometer pair at a particular location (according to Table E-9); however, the "S" designation also appears to be used at several locations where the application shows only a single piezometer.

RESPONSE: *The legend of Figure E2-2 has been revised to include a symbol and information for the piezometers screened “shallow” within the Stratum II. In addition, a note has been added to Figure E2-2 that explains its meaning. The designation “(S)” indicates a piezometer screened shallower in Stratum II, (higher in the section) than the “(D)” piezometers, which are screened at the interface of Stratum II and III. The “(D)” designation is only shown when paired with an “(S)” piezometer.*

52. In the text where terms such as “fat clay” are used (examples: in the first paragraph of Section 4.2; Section 5.6.1), also provide the corresponding technical term (example: according to the key to symbols in Figure 2-3 in Appendix E2, “fat clay” refers to high-plasticity inorganic clay, which has a Unified Soil Classification System [USCS] code of CH).

RESPONSE: *Where the term “fat clay” is used in Sections 4.2 and 5.6.1, the technical term has also been included in the text.*

53. Section 4.2.1 describes Stratum I as an organic silty fat clay (which would correspond to USCS code OH), whereas the boring logs identify the uppermost strata using USCS code CH (which corresponds to inorganic, high plasticity clay). Please clarify which is the correct USCS code for the uppermost strata.

RESPONSE: *Section 4.2.1 was revised to be consistent with the boring logs.*

54. The descriptions of Stratum II and Stratum III in Sections 4.2.2 and 4.2.3 state that “very little evidence of fractures or slickenside” was observed. Please revise the statements to clarify whether fractures and slickensides do exist in the strata at the site, and to what extent.

RESPONSE: *Sections 4.2.2 and 4.2.3 have been revised to clarify the presence of slickensides in one boring and the lack of fractures in Stratum II. Fractures and slickensides were not observed in Stratum III.*

55. The description of Stratum III in Section 4.2.3 references the same data sheets in Figures E5-19 through E5-29 that were referenced in the description of Stratum II in Section 4.2.2. Please clarify which of the data sheets present data for Stratum II, and which for Stratum III. Also, please revise the statements regarding permeabilities of Stratum II and Stratum III accordingly.

RESPONSE: *References for the hydraulic conductivity worksheets for each stratum have been included in Section 4.2.2 and 4.2.3.*

56. Please include columns for USCS code and hydraulic conductivity in Table E-7, and include information indicating the number of samples contributing to each average property, and the identity of those samples. Also reference a table where the properties of all the samples are summarized.

RESPONSE: Attachment E, Table E-7 has been revised to include the USCS designation and the hydraulic conductivity. Table E-6 has been revised to correct the number of samples for each test. Appendix E5, pages E5-1 and E5-2 have been revised to provide the number and identity of samples used to compute the average properties. Section 5.2 has been revised to reference the pages where all of the samples are summarized. An additional Atterberg limits test and a hydraulic conductivity test have been performed on a sample from Stratum I Boring BME-03. Boring Log BME-03, page E2-12 has been revised to include the Atterberg limits test results and the hydraulic conductivity worksheet has been included in Appendix E5 on page E5-21a. Section 4.2.1 and Table E-11 have been revised to include the Stratum I hydraulic conductivity.

57. Address the following comments regarding Table E-11:

- a. Add a column indicating the page number of each laboratory test data sheet in Appendix E-5.

RESPONSE: A column indicating the page number of the laboratory data sheet for the hydraulic conductivity tests has been added to Table E-11.

- b. Some of the laboratory hydraulic conductivity tests with data sheets in Appendix E-5 are not represented in Table E-11. Please include all test results in the table, or explain why they are excluded.

RESPONSE: Table E-11 has been revised to include all of the hydraulic conductivity test results. The test result for BME-5 was inadvertently not included previously in the Table E-11. The composite test results for BME- 32, 19, 23 and BME-23, 32 have not been included because these are remolded composite samples which are used to measure properties for constructed liner and do not measure in situ soil properties.

- c. The geometric mean for Stratum II appears to be too high based on the data in the table. Please check calculations and revise the result as needed.

RESPONSE: As discussed in the above response, the hydraulic conductivity of BME-5 was inadvertently left out of the calculation of the geometric and arithmetic mean for Stratum II. Both the arithmetic and geometric means have been recalculated including the data from BME-5.

58. Explain on the groundwater velocity calculation sheet on page E6-1 in Appendix E-6 exactly how you estimated the hydraulic gradient value from structure contour map for the top of Stratum III (Figure E3-10).

RESPONSE: The following explanation was included on Figure E6-1: "The hydraulic gradient was estimated by measuring the hydraulic gradient in multiple places on Figure E3-10 and then taking an average."

59. The 500-foot contour on Figure E3-10, Structure Map Top of Stratum III has an extra label near its northwest end that reads "510." Please correct or remove the extra label.

RESPONSE: *The northwest portion of the 500-foot contour has been revised on Figure E3-10.*

PART III, ATTACHMENT F – GROUNDWATER SAMPLING AND ANALYSIS PLAN

60. Revise the last sentence of Section 2.1 for clarity. It appears to report that the interface of the weathered and unweathered clay is marked by a color change from tan-gray weathered clay to dark gray unweathered clay.

RESPONSE: *While we intended to state that the weathered/unweathered interface is marked by a color change, we have included in Section 2.1 additional characteristics that are indicative of the interface.*

61. Revise Section 4.1 to clarify that groundwater at the site has not yet been sampled or analyzed, and therefore it is not known whether any contaminants are already present in the groundwater.

RESPONSE: *The following sentences were added to Section 4.1: "Because there is no existing MSW facility at the site, groundwater has not yet been sampled or analyzed. Therefore, it is not known whether any contaminants are already present in the groundwater."*

62. 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.

RESPONSE: *Section 2.3 of Appendix F2 is revised to state that a partial set of samples will be collected if sufficient recovery has occurred.*

PART III, ATTACHMENT G – LANDFILL GAS MANAGEMENT PLAN

63. In Section 1.1, document the total design capacity of the landfill.

RESPONSE: *The total design capacity of the landfill has been added to Section 1.1.*

64. In Section 2.1, clarify whether probe spacing considered proximity of nearby residences only, or all habitable structures. Also reference Drawing G1.3, Habitable Structures Within ¼ Mile of Facility Boundary.

RESPONSE: *Section 2.1 already states that the closer spacing on the north side is based on the nearby residences. However, the spacing of the probes around the rest of the site (maximum 600 feet) is also less than the typical 1,000 feet spacing used on landfills. This is to allow the system to already be designed to be protective of any*

future habitable buildings that may be installed around the perimeter of the site. In addition, a reference to Drawing G1.3 has been added to Section 2.1, as requested.

65. Please document how the geologic, hydrogeologic, and hydraulic conditions mentioned in Sections 2.2, 2.3, and 2.4 were considered in the design of the landfill gas monitoring system pursuant to 30 TAC §330.371(b)(1).

RESPONSE: Section 2.7 has been revised to provide the additional information.

66. Revise the heading of Section 2.5 to clarify that it addresses facility structures within the facility boundary, rather than within the property boundary, if that is the case.

RESPONSE: The heading for Section 2.5 has been revised as requested.

67. Revise Section 2.5 to clarify that "permanent methane monitor" refers to monitoring devices permanently installed in facility structures that will continuously monitor methane concentrations.

RESPONSE: Section 2.5 has been revised as requested.

68. We suggest that you set up an appendix to the Landfill Gas Management Plan for formally incorporating gas probe boring logs and completion logs as gas probes are added at the facility.

RESPONSE: Appendix G5 has been added for the insertion of future gas probe boring/completion logs.

69. In Section 3.1.1, in the discussion of phased installation of gas probes, please acknowledge that if the sequence of development or sector designation changes, the probe phasing will be modified accordingly.

RESPONSE: Section 3.1.1 has been revised to include the requested language.

70. State in Section 3.1.1 or 3.1.2 that an installation report will be submitted for each phase of gas probe installation that includes boring logs and completion logs to be inserted into an appendix to the Landfill Gas Management Plan.

RESPONSE: Language has been added to state that boring/completion logs will be submitted to TCEQ and added to Appendix G5.

71. Revise Section 3.2.1 to be consistent with Section 2.5, which indicates that facility structures will have permanently installed devices that continuously monitor methane.

RESPONSE: Section 3.2.1 has been revised as requested.

72. Revise Section 3.5 to clarify that facility structures will be monitored continuously, consistent with Section 2.5.

RESPONSE: *Section 3.5 has been revised to make the clarification.*

73. The westernmost part of the facility boundary is not shown on Drawing G1.1. Please revise the drawing to show the entire facility boundary.

RESPONSE: *Drawing G1.1 has been revised to show the entire facility boundary.*

PART III, ATTACHMENT H – CLOSURE PLAN

74. The final bulleted item in Section 4.2 addresses 30 TAC §330.457(g). This item, and the rule, indicate that a certified notation will be recorded on the deed to the facility that will in perpetuity notify any potential purchaser of the property that the land has been used as a landfill and the use of the land is restricted according to the provisions specified in the Post Closure Care Plan and 30 TAC §330.465. This rule citation is incorrect in 30 TAC §330.457(g). Please correct this citation to 30 TAC Chapter 330, Subchapter T.

RESPONSE: *Attachment H, Section 4.2 has been revised to correct the rule citation.*

75. Please address the closure of the Large Items Storage Area, Reusable Materials Storage Area, Used/Scrap Tire Storage Area, Wood Waste Processing Area, and Leachate Storage Facility. If a unit, such as the Leachate Storage Area, will be operated through the post-closure care period, please reference this in the Closure Plan and address the closure of that unit in the Postclosure Plan in Part III, Attachment I. Address for these storage and processing unit, as applicable, the closure requirements of 30 TAC §330.459.

RESPONSE: *Attachment H, Sections 3.2 and 4.2, and 5, and Attachment I, Section 2.4 have been revised to address the closure of the Large Items Storage Area, Reusable Materials Storage Area, Used/Scrap Tire Storage Area, Wood Waste Processing Area, Wheel Wash, and Leachate Storage Facility.*

76. Please address deed notification, required under 30 TAC §330.171(c)(3)(C) for facilities disposing of regulated asbestos-containing material (RACM), within the Closure Plan.

RESPONSE: *Attachment H, Section 4.3 (formerly Section 4.2) has been revised to address deed notification if the facility disposes of RACM.*

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

77. A detailed Closure Cost Estimate is provided in Appendix J1 to address the requirements of 30 TAC §330.503. The cost estimate does not appear to include third-party disposal of processed and unprocessed materials in processing and storage areas, including the Large Item Storage Area, Reusable Materials Staging Area, Citizen's Convenience Center, Used/Scrap Tire Storage Area, Wood Waste

Processing Area, Leachate Storage Facility, and Truck Wheel Wash. Please provide for these costs in the estimate with quantities tied to maximum quantities that may be onsite in these units in accordance with 30 TAC §330.505 and for disassembly and disposal of units, as appropriate.

RESPONSE: *Attachment J, Table J-1, Appendix J1, Section 2.9 and page J1-5, have been revised to address the third-party disposal of processed and unprocessed materials in storage and transfer units. Table J-2, Appendix J2, Section 3.0 and page J2-3 have been revised to address the closure of the leachate storage facility.*

PART IV, SITE OPERATING PLAN

78. In accordance with 30 TAC §330.127(5)(E), please provide provisions for remediation of an incident involving unloading of hazardous waste or polychlorinated biphenyls waste at the active face.

RESPONSE: *Part IV, Section 5.6 has been revised to include provisions for remediation of an incident involving unloading hazardous waste or polychlorinated biphenyls at the active working face.*

79. In accordance with 30 TAC §330.129, please provide a demonstration that the largest active face may be covered with 6 inches of soil within one hour. Section 8.2 indicates that the maximum size of the unloading area will be 0.5 acres, which is slightly larger than the largest size indicated in the table on page IV-26. Also, please explain 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.

RESPONSE: *Section 7.1 has been revised to include a demonstration that the largest active working face may be covered with 6 inches of soil within one hour and includes a discussion on the size of the active working face.*

80. Section 8.2 indicates that a maximum of three working faces may be used at any time. These working faces would include an area for re regulated asbestos-containing material (RACM). In accordance with 30 TAC §330.133(a), please provide the largest unloading area for RACM.

RESPONSE: *Section 8.2 has been revised to provide the maximum size of the unloading area for RACM.*

81. Subsection 30 TAC §330.133(a) requires that a trained staff person should observe all unloading of waste. While the SOP addresses this requirement for the active face, it does not appear to address it for waste storage and processing areas. Please include a provision that all unloading of waste will be observed.

RESPONSE: *Additional language has been added to Section 8.2 to clarify that all unloading of waste will be observed by a trained staff person at all unloading areas.*

82. To address the requirements of 30 TAC §330.135(b), it is recommended that the SOP include five designated days for alternative hours to avoid the need to contact regional staff for special occasions, special purpose events, holidays, or other special occurrences that will occur each year. The SOP should avoid specific dates, but rather refer to the event or occasion, such as "the Sunday after Thanksgiving" or "the Sunday after Christmas." If days are designated for alternative hours, the hours should be specified in the SOP and subsequently noted in the site operating record.

RESPONSE: *The facility does not wish to designate specific days at this time, but may choose to do so in the future. The facility will contact regional staff for alternative hours and document in the site operating record.*

83. Please indicate that waste acceptance hours will be displayed on the site sign required under 30 TAC §330.137.

RESPONSE: *Section 8.4 has been revised to indicate that waste acceptance hours will be posted on the site sign.*

84. In accordance with 30 TAC 330.171(b)(4), contaminated soil that exceeds 1,500 parts per million (ppm) or a constituent of concern exceeding levels in 30 TAC §335.521(a)(1), Table 1 must be disposed in a dedicated unit that meets the liner requirements of 30 TAC §330.331(e). No such liner is proposed for this facility. While a prohibition on Class 1 industrial waste addresses most of these soils, the prohibition under 30 TAC 330.171(b)(4) extends beyond industrial waste. Please include this waste in the list of prohibitions in the next-to-last paragraph in Section 8.20, and in the Waste Acceptance Plan in Part II of the application.

RESPONSE: *Section 5.6, Section 8.20, and Part II, Section 2 have been revised to state that the waste identified above will not be accepted.*

85. In accordance with 30 TAC §330.171(c)(3)(E), RACM may only be accepted at the facility in tightly closed and unruptured containers or bags and must be wrapped with at least six-mil polyethylene. Some, but not all of these provisions are addressed in Appendix IVB, Chapter 3, Item B1. Please expand this item to address all provisions of the cited rule.

RESPONSE: *Appendix IVB, Section 3 has been revised to address the provisions of 30 TAC §330.171(c)(3)(E).*

86. Please review Sections 8.25.1, 8.25.3, 8.25.4, and 8.25.5 to ensure that all requirements of 30 TAC §330.203(b) are addressed.

RESPONSE: *The above referenced sections have been revised to address all requirements of §330.203(b).*

87. Please add a provision to Section 8.25.2 that solidified sediments from the truck wheel wash that are disposed in the landfill will have no free liquids, as confirmed by the Paint Filter Liquids Test.

RESPONSE: *Section 8.25.7 has been revised to include the provision that solidified sediments will have no free liquids, as confirmed by the Paint Filter Liquids Test.*

88. Please expand the discussion on the Citizen Convenience Center to address the requirements for approved containers in 30 TAC §330.211 and for posted rules governing the use of the unit in 30 TAC §330.213.

RESPONSE: *Section 8.25.3 has been revised to include the requested language.*

89. Please expand Chapter 7 to address the requirements of 30 TAC §330.221 to provide for fire protection, where appropriate, for storage and processing areas.

RESPONSE: *Section 7.1 has been revised as requested.*

90. Please address applicable subsections of 30 TAC §330.245, regarding ventilation and air pollution control.

RESPONSE: *Section 8.27 – Ventilation and Air Pollution Control – Storage and Processing Facilities has been added to address the applicable requirements of §330.245.*

91. In accordance with 30 TAC §330.247, please provide for the requirement that facility personnel will be trained in the appropriate sections of the facility's health and safety plan.

RESPONSE: *Section 8.28 – Health and Safety has been added to provide for this requirement.*

92. In accordance with 30 TAC §330.249, please provide for the requirement that the owner or operator will provide potable water and sanitary facilities for all employees and visitors.

RESPONSE: *Section 8.29 – Employee Sanitation Facilities has been added to address the requirements of §330.249.*

Mr. Steve Odil
June 27, 2014
Page 27

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 • TBPB No. 50222

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

Attachments: Response to Second Notice of Deficiency

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



Biggs & Mathews, Inc.
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

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013
Revised February 2014

Revised June 2014



Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

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

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

TYPE I PERMIT APPLICATION

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SURROUNDING AREA



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Firm Registration No. F-834

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6/25/14

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

TYPE I PERMIT APPLICATION

VOLUME 2 OF 5

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013
Revised February 2014

Revised June 2014



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

TYPE I PERMIT APPLICATION

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- Attachment C3 – Drainage System Plans and Details



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

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6/25/14

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

TYPE I PERMIT APPLICATION

VOLUME 3 OF 5

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

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

TYPE I PERMIT APPLICATION

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

TYPE I PERMIT APPLICATION

VOLUME 4 OF 5

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

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CALDWELL COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 2383

TYPE I PERMIT APPLICATION

VOLUME 4 OF 5

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PART III FACILITY INVESTIGATION AND DESIGN

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Attachment F – Groundwater Sampling and Analysis Plan



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

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6/25/14

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

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

TYPE I PERMIT APPLICATION

VOLUME 5 OF 5

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Attachment J – Cost Estimate for Closure and Postclosure Care

PART IV SITE OPERATING PLAN



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

[Handwritten signature]
6/25/14



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:	132-134 Riverstone Terrace, Suite 203403			
(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:

☒ Permit	☐ Major Amendment	☐ Minor Amendment
☐ Registration	☐ Modification	☐ Temporary Authorization
	☒ w/Public Notice	
	☐ w/out Public Notice	☒ 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:

☒ Type I	☐ Type IV	☐ Type V	☐ Type IX
☐ Type I AE	☐ Type IV AE	☐ Type VI	

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

☒ Storage	☒ Processing	☒ Disposal
---	--	--

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

☐ Containers	☐ Tanks	☐ Surface Impoundments	☒ Landfills
☐ Incinerators	☐ Composting	☐ Type IV Demonstration Unit	☐ Type IX Energy/Material Recovery
☐ Other (Specify)		☐ Other (Specify)	
☐ Other (Specify)		☐ 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: Ernest Kaufmann

Date: 6/25/14

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 25 day of June, 2014

My commission expires on the 20th day of December, 2014

Margaret Cook
Notary Public, State of Georgia

Pickens

County

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

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

TYPE I PERMIT APPLICATION

**PART I
SITE AND APPLICANT INFORMATION**

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013
Revised February 2014

Revised June 2014



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

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

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

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APPENDIX ID – LEGAL AUTHORITY

APPENDIX IE – APPOINTMENTS

APPENDIX IF – DOCUMENTATION OF APPLICATION FEE PAYMENT

**NOTICE OF APPOINTMENT
Engineer's Appointment**

Mr. Richard A. Hyde, P.E.
Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Mr. Hyde:

This is to advise you that officials at 130 Environmental Park, LLC 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 application for the 130 Environmental Park, Permit No. MSW 2383.

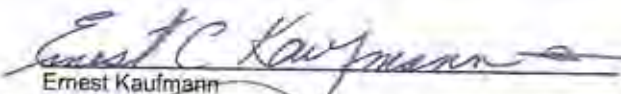
Biggs and Mathews Environmental, Inc., is an engineering firm employing professional engineers in good standing in accordance with State statutes, and the firm has experience in the design and construction of similar facilities. Kerry D. Maroney, P.E., Principal, with Biggs and Mathews Inc., is Engineer of Record for this permit application. He is registered in the state of Texas and has more than 30 years of experience in engineering.

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.

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.

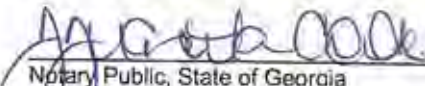
ATTEST:

130 ENVIRONMENTAL PARK, LLC


Ernest Kaufmann

President and Manager of 130 Environmental Park, LLC

SWORN TO AND SUBSCRIBED BEFORE ME by Ernest Kaufmann on this 25 day
of June, 2014, which witness my hand and seal of office.


Notary Public, State of Georgia

Juanita Cook
Printed Name

My Commission Expires: 12/20/14

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

TYPE I PERMIT APPLICATION

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

Prepared for

130 ENVIRONMENTAL PARK, LLC

August 2013

Revised February 2014

Revised June 2014



Prepared by

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

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Biggs & Mathews, Inc.
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Biggs & Mathews Environmental, Inc.
Firm Registration No. 50222

For Sections 8.1, 10.1, 10.2, 10.3, 10.4, 10.5, 11.1, 11.2, 12.1, 12.2.



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

For Section 10.6.

2 WASTE ACCEPTANCE PLAN

30 TAC §330.61(b)

2.1 Properties and Characteristics of Waste

The major classifications of solid waste to be accepted for disposal at 130 Environmental Park include municipal solid waste, special waste, and Class 2 and 3 industrial wastes as defined by §330.3. Special wastes accepted at the facility authorized by §330.171(c) include regulated asbestos-containing materials (RACM), nonregulated asbestos-containing materials (non-RACM), and empty containers. In addition, other special wastes may be accepted based on a waste-specific approval as authorized by §330.171(b) and the facility.

130 Environmental Park is proposed to include facilities for storage and processing of waste materials. Facilities include the proposed Type V transfer station, large item storage area, reusable materials staging area, citizens convenience center, used/scrap tire storage area, and wood waste processing area. Materials accepted for storage or processing include construction and demolition wastes, white goods, inert materials, asphalt pavement or asphaltic concrete, source-separated recyclable materials, used or scrap tires, brush, and yard waste. In addition, municipal solid waste may be temporarily stored at the citizens convenience center.

130 Environmental Park will not accept medical waste, sewage, dead animals and/or slaughterhouse waste, sludge, grease trap waste, grit trap waste, liquid waste from municipal sources, municipal hazardous waste from conditionally exempt small quantity generators, or out-of-state wastes. The facility will not accept Class 1 industrial solid wastes, except for wastes that are Class 1 only because of asbestos content. The waste classifications are defined in §330.3.

Consistent with §330.15, the facility will not accept for disposal lead acid storage batteries; used motor vehicle oil; used oil filters; whole used or scrap tires; refrigerators, freezers, air conditioners or other items containing chlorinated fluorocarbons (CFC); bulk or noncontainerized liquid waste from nonhousehold sources; regulated hazardous waste; polychlorinated biphenyls (PCB) waste; radioactive materials; or other wastes prohibited by TCEQ regulations.

~~130 Environmental Park will not accept for storage, processing, or disposal any waste with a constituent or characteristic that could be a limiting parameter that may impact or influence the design and operation of the facility. Consistent with §330.61(b)(1), limiting parameters for waste to be accepted include: a concentration of 1,500 mg/kg total petroleum hydrocarbons, the levels for Class 1 industrial solid waste provided in 30 TAC §335.521(a)(1), the presence of free liquids, the presence of regulated hazardous waste, the presence of polychlorinated biphenyls, the presence of radioactive waste, and the presence of chlorinated fluorocarbons.~~

The facility will not accept Class 1 industrial solid waste, except RACM that has been designated Class 1 industrial waste only because of its asbestos content. There are no existing or proposed Class 1 cells or disposal areas at the facility. Therefore, the facility is consistent with the provisions of §330.561; and the facility is not located within a coastal area as defined in 30 TAC §335.584 (b) (3) and (4). Refer to Appendix IIK for the location restriction statement and certification.

9 TRANSPORTATION

30 TAC §330.61(i)

9.1 Traffic and Roadways

Consistent with §330.61(i)(1)-(4), a transportation study prepared by Lee Engineering is included as Appendix IIC – Transportation Study. The transportation study provides information on the availability and adequacy of access roads, provides data on the existing and expected vehicular traffic on access roads within one mile of the facility during the expected site life of the facility, and projects the volume of traffic expected to be generated by the facility on the access roads within one mile of the facility. The projected traffic volumes were developed based on the experience of 130 Environmental Park, LLC with similar sites. Documentation of coordination with the Texas Department of Transportation (TxDOT), is also included in Appendix IIC.

9.2 Airport Impact

Consistent with §330.61(i)(5), an evaluation of the facility impact on surrounding airports was conducted in accordance with §330.545. Refer to Appendix IIA – Maps and Drawings, Drawing IIA.6 – FAA Airport Location Map for the location of the facility in relationship to area airports. The airport map uses the FAA Sectional Aeronautical Chart, San Antonio, 91st Edition, dated May 2, 2013 as the base drawing. The map depicts the location of the facility, a 5,000-foot radius, a 10,000-foot radius, and a six-mile radius from the facility boundary. As depicted on Drawing IIA.6, there is no public-use airport located within a six-mile radius.

In addition, it was verified through the FAA's Notice Criteria Tool that the landfill does not exceed the criteria listed in 14 CFR Part 77.9 that would require notification to the FAA for an obstruction evaluation.

Refer to Appendix IIH – Federal Aviation Administration Documentation for documentation of coordination with FAA regarding location of the facility in relation to airports in the designated areas as required by §330.61(i) and §330.545. Refer to Appendix IIK for the airport safety location restrictions statement and certification.

eventually to gray as it transitions to the unweathered dark gray clay below. ~~No evidence of fractures was observed. Very little evidence exists of fractures or slickensides was observed in only one boring, BME-24.~~ Laboratory permeability tests indicate both horizontal and vertical permeability in Stratum II are approximately 43.7×10^{-8} cm/sec. Laboratory hydraulic conductivity worksheets are included in Part III, Attachment E, Appendix E5, as Figures E5-19, E5-22, E5-24, and through E5-2925.

10.3.3 Stratum III – Unweathered Midway – Silty Dark Gray Clay

Stratum III consists of hard, dense, dark gray silty fat clay. Drilling progressed slowly due to the extreme dense nature of the unweathered clay. All thirty-two borings were drilled into this clay that exists across the entire site. Up to 77 feet of the clay was encountered in borings. Laboratory permeability tests ranged from 1.1×10^{-8} cm/sec to 2.1×10^{-8} cm/sec. The arithmetic mean of permeability results in Stratum III is 1.47×10^{-8} cm/sec. Laboratory hydraulic conductivity worksheets are included in Appendix E5 as ~~Figures E5-1920, EF-21, and through E5-2923.~~ Published literature (Follet, 1966 and Rasmussen, 1947) suggests that the Midway is 400 to 600 feet thick beneath the site. Literature also suggests that beneath the Midway are several hundred feet of low permeability clays, marls, and limestones of the Navarro, Taylor, Eagle Ford, and Austin formations.

~~Similar to the overlying Stratum II, Stratum III displays very little evidence of fracturing or slickenside. No evidence of fractures or slickensides was observed in Stratum III.~~

Generalized Site Stratigraphy

Geologic Unit	Lithology	Average Depth to Top of Unit (ft)	Average Thickness of Unit (ft)	Hydrogeologic Unit
Stratum I	Silty clay soil	Outcrops at Surface	4	Surficial soil
Stratum II	Weathered silty clay	4	48	Uppermost aquifer*
Stratum III	Unweathered silty dark gray clay	50	400 – 600	Aquiclude

*While not recognized as an aquifer by the Texas Water Development Board, this zone functions as the uppermost aquifer for purposes of groundwater monitoring.

10.4 Fault Areas

Consistent with §330.61(j)(2) and §330.555, a fault areas evaluation was prepared as part of this application to demonstrate that the 130 Environmental Park site meets the location restriction for fault areas.

The property on which the 130 Environmental Park site is located was examined for the presence of faulting according to §330.555 criteria. A fault study was conducted that included reviewing aerial photographs for the site, reviewing available geologic literature and maps of the area, conducting site reconnaissance, and examining the subsurface boring data from the site.

The site and the immediate area were investigated for:

- Structural damage to constructed facilities (roadways, railways, and buildings).
- Scarps in natural ground.
- Presence of surface depressions (sag ponds and ponded water).
- Presence of lineations on aerial maps and topographic sheets. The following historical aerial photographs from Google Earth were reviewed:

8/1/2012
10/17/2011
3/9/2011
11/24/2009

10/30/2008
2/28/2008
4/29/2006
10/21/2005

8/12/2003
12/30/2002
12/30/1997
1/27/1995

- Structural control of natural streams.
- Vegetation changes.
- Crude oil and natural gas accumulations.
- References to published geological literature pertaining to area conditions.

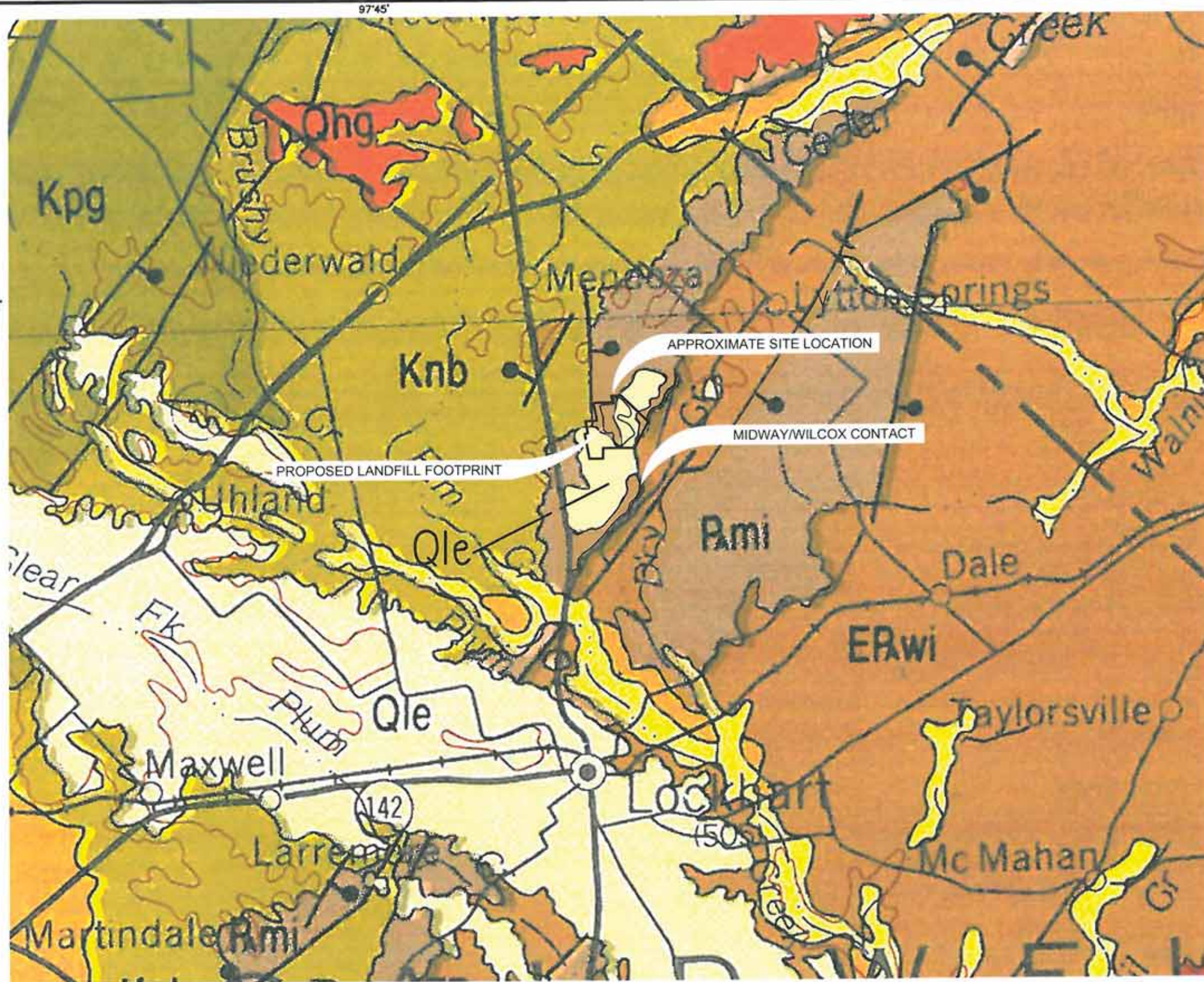
A site walkover was conducted by John Michael Snyder, P.G., who is an experienced licensed professional geoscientist and site reconnaissance was conducted by a licensed professional engineer familiar with the faulting and solid waste disposal facilities to identify possible physical evidence caused by faulting. No unusual scarps or topographic breaks were interpreted within 200 feet of the site. No evidence of faulting was found associated with formation outcrops; no evidence of faulting was found by examination of area roadways; no structural influence of stream courses was found; and no unusual relief or topographic features (such as sag ponds or truncated alluvial spurs) were observed on the site. No evidence of structural damage to buildings on the property was identified.

In summary, no fault scarps were observed at the surface within 200 feet of the site and there was no evidence of vertical subsidence on any outcrops of geologic materials. No vertical displacement or stratigraphic offset indicative of faults was observed in outcrops. There is no known active faulting within 1/2 mile of the site in Holocene time; therefore, the site complies with §330.555.

Many faults are located in the area and are related to the Balcones Fault Zone and Mexia-Luling Talco Fault Zone. The Balcones Fault Zone faults last moved during the Miocene Epoch (Garner and Young, 1976; Jordan, 1977; and Grimshaw and Woodruff, 2005), while movement along the Mexia-Luling Talco Fault Zone occurred in the Eocene Epoch (Jackson, 1982; Culotta et al, 1992; Sellards & Baker, 1934; and Weeks, 1945). Consistent with §330.555(a), the faults located in the area of the facility are documented to have last moved 45 to 100 million years ago; therefore, they pre-date the Holocene Epoch. Also, the mapped faults in the area are located greater than 200 feet from the waste footprint. Refer to Appendix IIK for location restrictions statement and certification.

130 ENVIRONMENTAL PARK

APPENDIX IIA MAPS AND DRAWINGS



NOTE:

1. FOR GEOLOGIC LEGEND, SEE DRAWING IIA.9A.



**GEOLOGIC VICINITY MAP
CALDWELL COUNTY**

**130 ENVIRONMENTAL PARK, LLC
130 ENVIRONMENTAL PARK
TYPE I PERMIT APPLICATION**



**BIGGS & MATHEWS
ENVIRONMENTAL
CONSULTING ENGINEERS**

MANSFIELD • WICHITA FALLS
817-563-1144

TBPE FIRM NO. F-256

TBPG FIRM NO. 50222

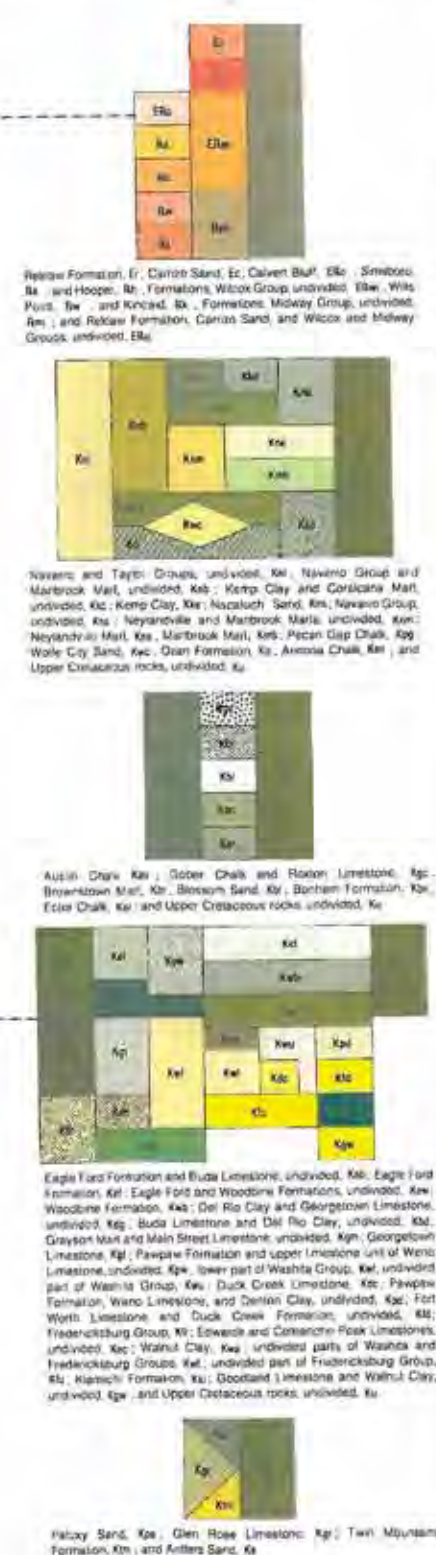
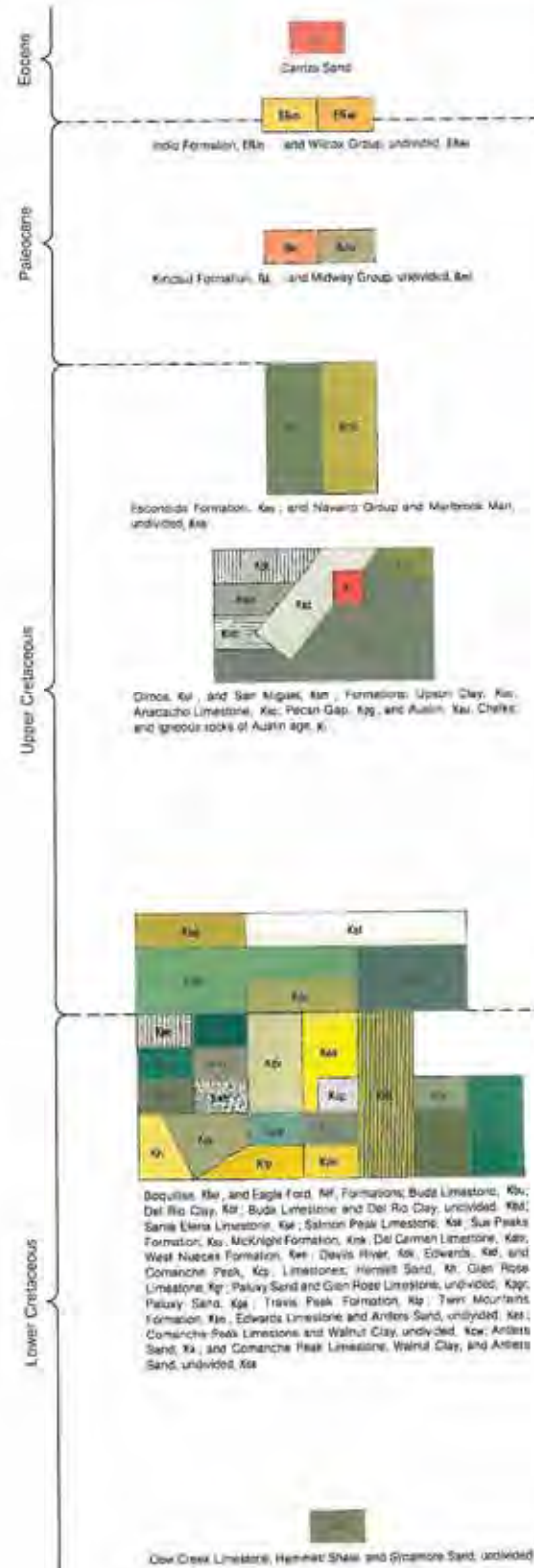
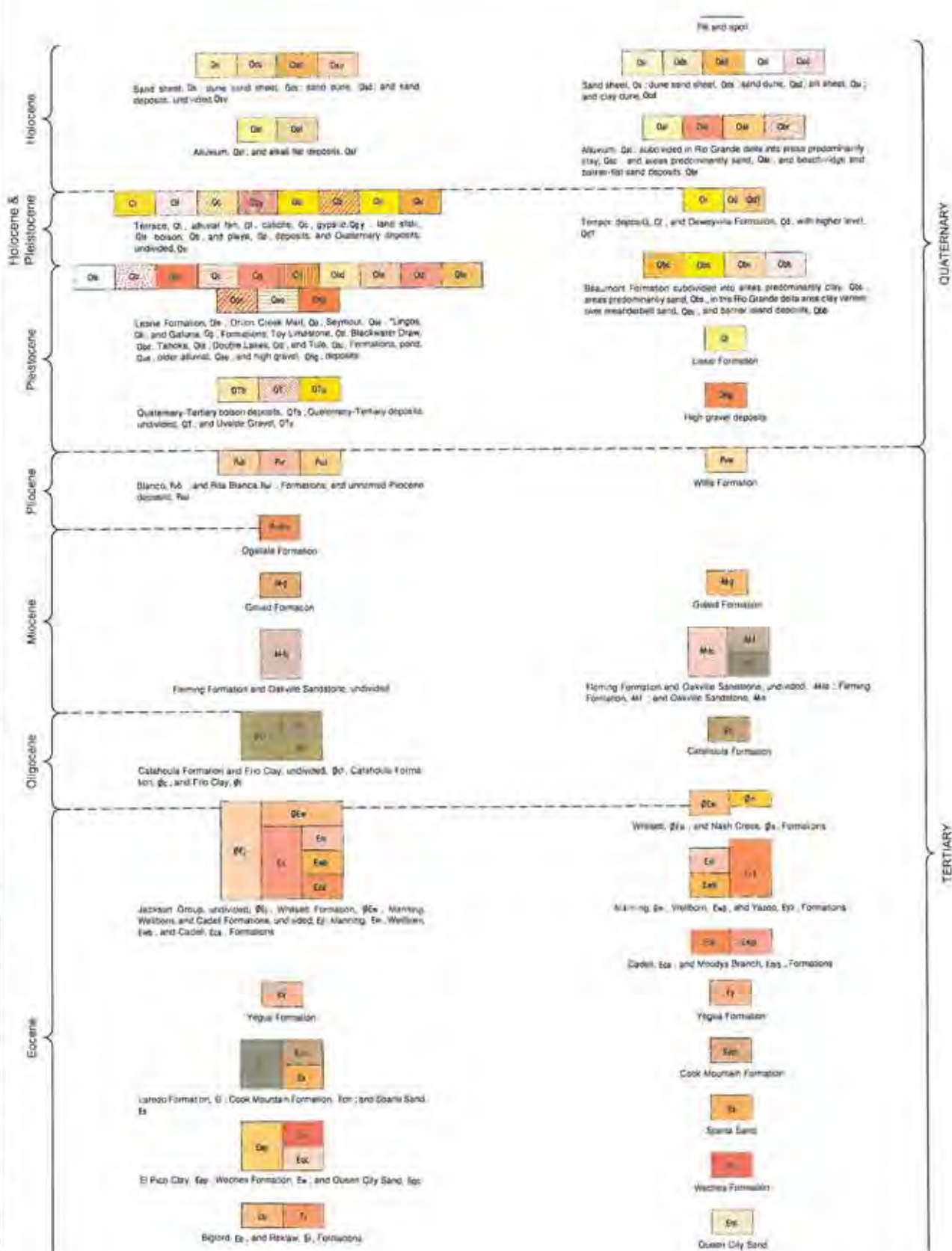
ISSUED FOR PERMITTING PURPOSES

REVISIONS		DATE				DATE		SCALE		FIGURE
REV	DATE	DESCRIPTION	OWN BY	DES BY	CHK BY	APP BY	DATE	SCALE	SCALE	
1	6/14	N.O.D. NO. 1 RESPONSE	GLW	ESF	JMS	JMS	6/13	GRAPHIC	GRAPHIC	IIA.9

GEOLOGIC MAP OF TEXAS

1992

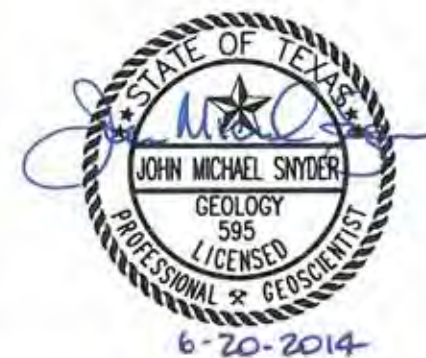
REFERENCE:
BARNES, V.E., 1992, GEOLOGIC MAP OF TEXAS,
SEGUIN SHEET, BUREAU OF ECONOMIC GEOLOGY,
UNIVERSITY OF TEXAS, AUSTIN, TEXAS.



GEOLOGIC MAP OF TEXAS

1992

REFERENCE:
BARNES, V.E., 1992, GEOLOGIC MAP OF TEXAS,
SEGUIN SHEET, BUREAU OF ECONOMIC GEOLOGY,
UNIVERSITY OF TEXAS, AUSTIN, TEXAS.



GEOLOGIC VICINITY MAP LEGEND

130 ENVIRONMENTAL PARK, LLC
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CONSULTING ENGINEERS

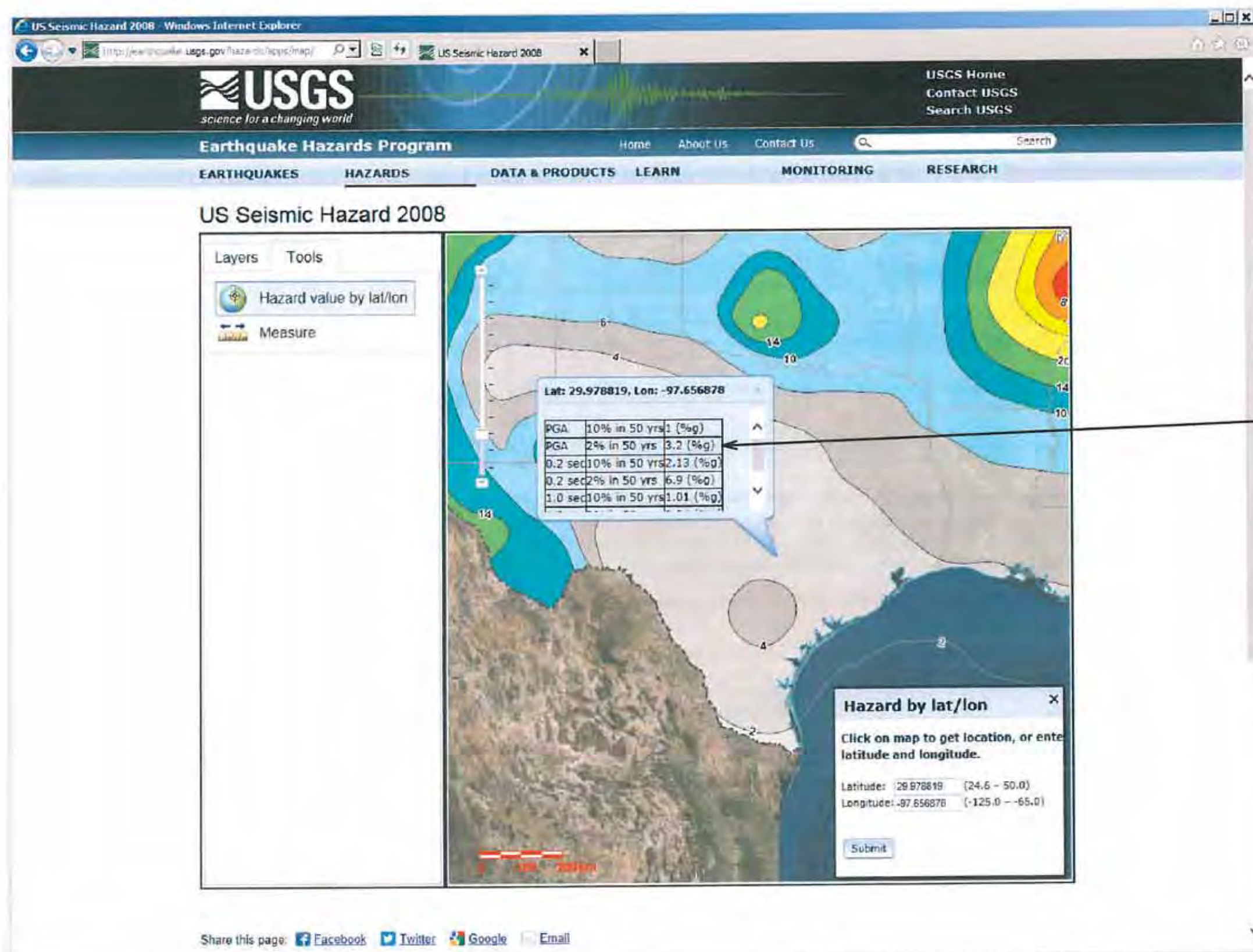
MANFIELD • WICHITA FALLS
817-563-1144

ISSUED FOR PERMITTING PURPOSES

REVISIONS										TBPE FIRM NO. F-256			TBPG FIRM NO. 50222		
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							DWN	GLW	SCALE	SCALE	GRAPHIC				
REV	DATE	DESCRIPTION	OWN BY	DES BY	CHK BY	APP BY	CHK	JMS	DWG	IIA.9-GeoVicinity.dwg					

FIGURE
IIA.9A

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Not To Scale

LEGEND

CONTOURS OF PEAK GROUND ACCELERATION (PGA) IN UNITS OF PERCENT OF GRAVITY (%g)

NOTE: THE FACILITY LIES IN AN AREA WHERE THE PGA, WITH A 2% PROBABILITY OF BEING EXCEEDED IN 50 YEARS (EQUIVALENT TO A 10% PROBABILITY IN 250 YEARS), IS LESS THAN 10% OF GRAVITY (LESS THAN 0.1g).



SEISMIC IMPACT ZONE

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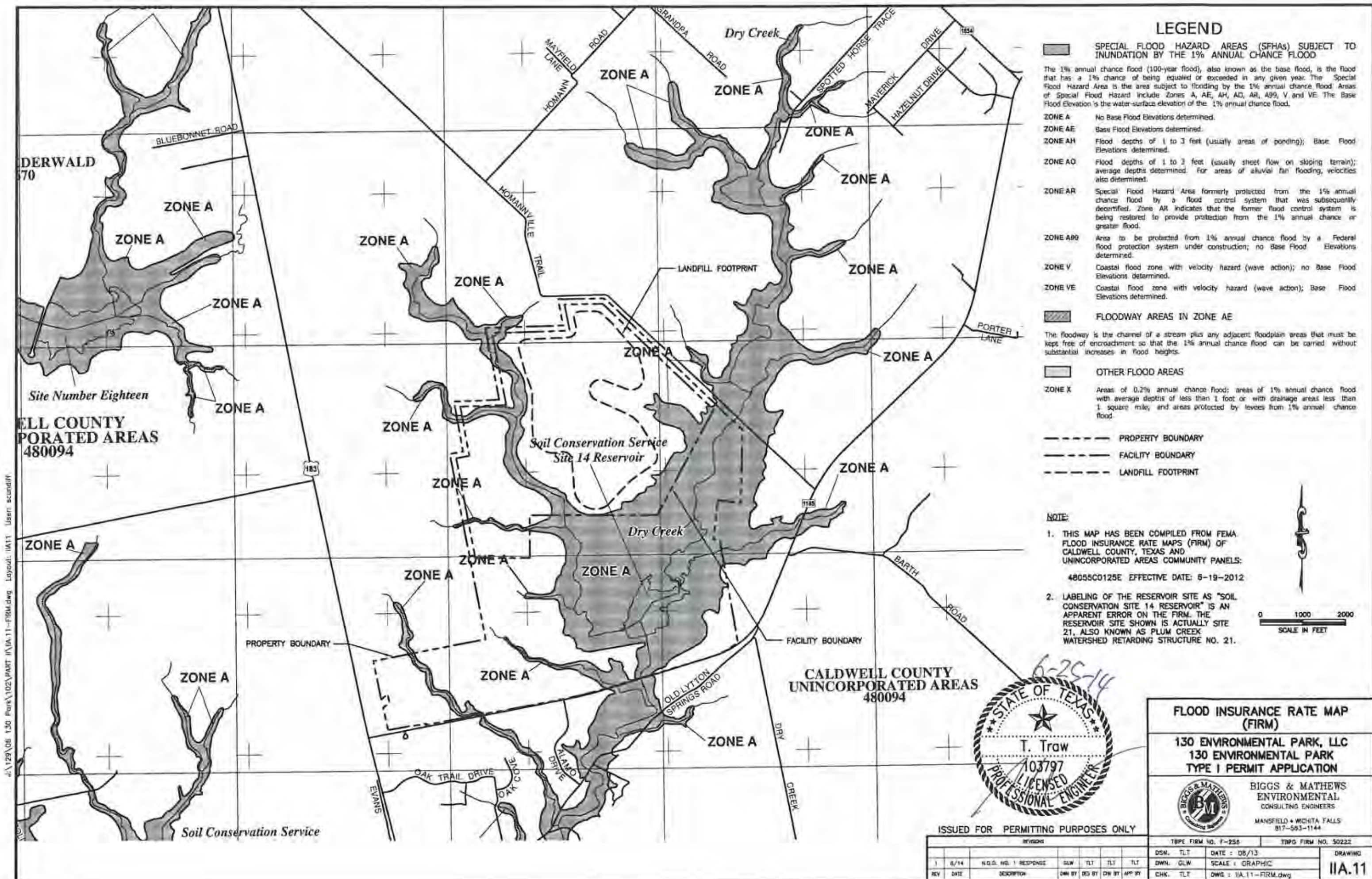
BIGGS & MATHEWS
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817-563-1144

Source: USGS Lower 48 States, 2008 Interactive Map (<http://earthquake.usgs.gov/hazards/apps/map/>) on June 12 2014.

ISSUED FOR PERMITTING PURPOSES ONLY

REVISIONS						TBPB FIRM NO. 1-256		TBPB FIRM NO. 50222	
1	06/14	N.O.D. NO. 1 RESPONSE	SRC	JMS	JMS	DSN, JMS	DATE : 06/13	DWN, GLW	DRAWING
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	CHK	SCALE : GRAPHIC	DWG : IIA.10-SeisImp.dwg	IIA.10

J:\129\06 130 Park\102\PART 1\IA.11--FIRM.dwg Layout: IIA.11 User: scundiff



LEGEND

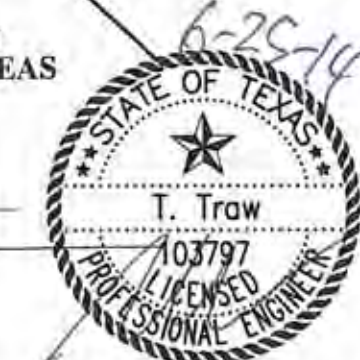
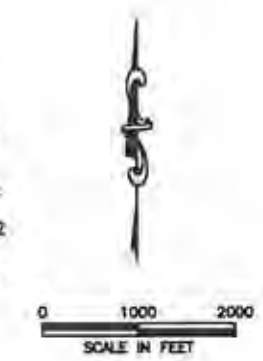
- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**
- The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL FOOTPRINT

NOTE:

1. THIS MAP HAS BEEN COMPILED FROM FEMA FLOOD INSURANCE RATE MAPS (FIRM) OF CALDWELL COUNTY, TEXAS AND UNINCORPORATED AREAS COMMUNITY PANELS: 48055C0125E EFFECTIVE DATE: 6-19-2012

2. LABELING OF THE RESERVOIR SITE AS "SOIL CONSERVATION SITE 14 RESERVOIR" IS AN APPARENT ERROR ON THE FIRM. THE RESERVOIR SITE SHOWN IS ACTUALLY SITE 21, ALSO KNOWN AS PLUM CREEK WATERSHED RETARDING STRUCTURE NO. 21.

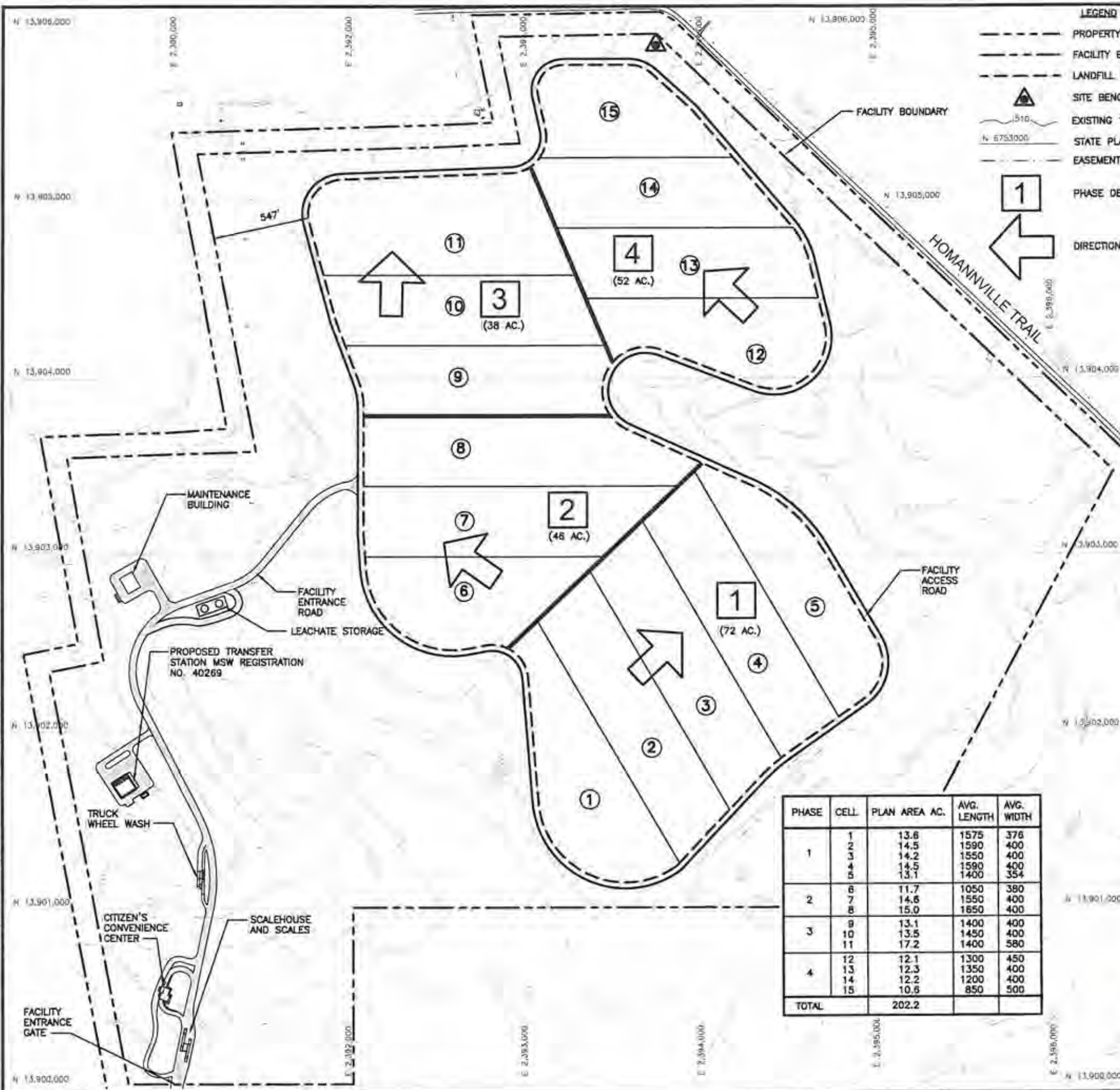


CALDWELL COUNTY UNINCORPORATED AREAS 480094

FLOOD INSURANCE RATE MAP (FIRM)	
130 ENVIRONMENTAL PARK, LLC 130 ENVIRONMENTAL PARK TYPE I PERMIT APPLICATION	
 BIGGS & MATHEWS ENVIRONMENTAL CONSULTING ENGINEERS MANFIELD • WICHITA FALLS 817-593-1144	
ISSUED FOR PERMITTING PURPOSES ONLY	
DSN. TLT	DATE: 08/13
DWN. GLW	SCALE: GRAPHIC
CHK. TLT	DWG: IIA.11--FIRM.dwg
DRAWING IIA.11	

REVISIONS						
REV	DATE	DESCRIPTION	OWN BY	DES BY	DWG BY	APP BY
1	8/14	N.G.D. NO. 1 RESPONSE	GLW	TLT	TLT	TLT

J:\128\06 130 Park\102\PART 1\13-Stationary.dwg Layout: 10/13 User: acoudfh



LEGEND

- PROPERTY BOUNDARY
- FACILITY BOUNDARY
- LANDFILL FOOTPRINT
- SITE BENCHMARK
- EXISTING 10' CONTOUR
- STATE PLANE GRID
- EASEMENT
- PHASE DESIGNATION
- DIRECTION OF LANDFILL DEVELOPMENT

NOTES:

- CONTOURS AND ELEVATIONS PROVIDED BY DALLAS AERIAL SERVICE FROM AERIAL PHOTOGRAPHY FLOWN MAY 13, 2013. HORIZONTAL DATUM IS TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (NAD 83). ELEVATIONS ARE RELATIVE TO NAVD88 - GEOID 12A.
- PROPERTY BOUNDARY, FACILITY BOUNDARY, EASEMENT LOCATIONS, AND PERMANENT BENCHMARK PROVIDED BY HODGE & HODGE LAND SURVEYING, INC.
- PERMANENT BENCHMARK INFORMATION:
COORDINATES (NAD 83): N 13905896.44
E 2393722.33
LATITUDE: N 29°58'43.75"
LONGITUDE: W 97°39'24.78"
ELEVATION: 592.37 FT-MSL
- ACCESS CONTROL WILL BE PROVIDED BY FENCE ALONG FACILITY BOUNDARY. SITE ENTRANCE WILL BE GATED. PERIMETER GATE AND FENCE WILL BE CONSTRUCTED WITH SUITABLE FENCING MATERIALS.
- DISTURBANCE OF EXISTING NATURAL WINDBREAKS AND GREEN BELTS ON THE PROPERTY WILL BE LIMITED TO IMPROVE THE APPEARANCE OF THE FACILITY AND TO PROVIDE SCREENING FROM THE PUBLIC VIEW.
- VISUAL SCREENING OF WASTE DISPOSAL OPERATIONS WILL BE PROVIDED BY THE VEGETATED SCREENING BERM SHOWN ON DRAWING IIA.24 AND THE FILLING SEQUENCE, DIVERSION BERMS, CONTAINMENT BERMS AND STOCKPILES.
- ONLY TYPE I AND TYPE IV MUNICIPAL SOLID WASTE WILL BE DISPOSED AT THE LANDFILL.
- EACH PHASE WILL BE DIVIDED INTO SEVERAL APPROXIMATELY 400 FEET WIDE CELLS. EACH CELL WILL HAVE A CROSS SLOPE TO A LEACHATE COLLECTION TRENCH LOCATED DOWN THE CENTERLINE OF THE CELL AND A DOWNSLOPE TO A LEACHATE COLLECTION SUMP LOCATED ALONG THE PERIMETER OF THE LANDFILL.
- THE LANDFILL DEVELOPMENT WILL PROCEED FROM SOUTH TO NORTH (SEQUENTIALLY FROM PHASE 1 TO PHASE 4). REFER TO DRAWINGS IIA.15 THROUGH IIA.20 FOR LANDFILL DEVELOPMENT PLANS.
- THE INITIAL SITE DEVELOPMENT WILL INCLUDE THE CONSTRUCTION OF THE ENTRANCE ROAD, PORTIONS OF THE PERIMETER ACCESS ROAD, SCALES, GATEHOUSE, MAINTENANCE BUILDING, CITIZEN'S CONVENIENCE CENTER, THE FIRST CELL, PERIMETER BERM, AND SURFACE WATER CONTROL FEATURES AROUND THE SOUTHERN END OF PHASE 1. MONITOR WELLS AND GAS PROBES WILL BE INSTALLED AROUND PHASE 1 ACCORDING TO THE INSTALLATION SCHEDULE PROVIDED ON DRAWING IIA.14.
- AS EACH CELL IS CONSTRUCTED AND FILLED, THE ADJACENT UNDEVELOPED CELL WILL BE EXCAVATED TO PROVIDE OPERATIONAL SOIL AND TEMPORARY STORMWATER STORAGE. SURFACE WATER CONTROLS AND ACCESS ROADS WILL BE CONSTRUCTED ADJACENT TO EACH AREA AS IT IS DEVELOPED. MONITOR WELL AND GAS PROBES WILL BE INSTALLED ACCORDING TO THE SCHEDULE PROVIDED ON DRAWING IIA.14.
- AS FILL AREAS REACH THE DESIGN GRADES FINAL COVER AND PERMANENT DRAINAGE FEATURES WILL BE INSTALLED, THE MAXIMUM ELEVATION OF SOLID WASTE WILL BE 732.5 FT MSL AND THE MAXIMUM ELEVATION OF FINAL COVER WILL BE 736.00 FT MSL.
- LARGE ITEM STORAGE AREA WILL BE PROVIDED WITHIN THE LANDFILL FOOTPRINT NEAR THE WORKING FACE OR NEAR THE CITIZEN'S CONVENIENCE CENTER.
- REUSABLE MATERIALS STAGING AREA WILL BE PROVIDED WITHIN THE LANDFILL FOOTPRINT.
- USED/SCRAP TIRE STORAGE AREA WILL TYPICALLY BE PROVIDED NEAR THE WORKING FACE OR NEAR THE CITIZEN'S CONVENIENCE CENTER.
- WOOD WASTE PROCESSING AREA WILL BE PROVIDED WITHIN THE LANDFILL FOOTPRINT.

PHASE	CELL	PLAN AREA AC.	AVG. LENGTH	AVG. WIDTH
1	1	13.6	1575	376
	2	14.5	1590	400
	3	14.2	1550	400
	4	14.5	1590	400
	5	13.1	1400	354
2	6	11.7	1050	380
	7	14.6	1550	400
	8	15.0	1650	400
3	9	13.1	1400	400
	10	13.5	1450	400
	11	17.2	1400	580
4	12	12.1	1300	450
	13	12.3	1350	400
	14	12.2	1200	400
	15	10.6	850	500
TOTAL		202.2		



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REVISIONS						TBPS FIRM NO. F-256		TBPS FIRM NO. 50222		DRAWING IIA.13
REV	DATE	DESCRIPTION	DES BY	DES BY	APP BY	DSN. K.J.W.	DATE: 8/13	DWN. G.L.W.	SCALE: GRAPHIC	
1	1/14	NO. 1 RESPONSE	GLW	NDM	NDM	CHK. K.J.W.	DWG: IIA.13-SiteLay.dwg			

SITE LAYOUT PLAN

130 ENVIRONMENTAL PARK, LLC
130 ENVIRONMENTAL PARK
TYPE I PERMIT APPLICATION



BIGGS & MATHEWS
ENVIRONMENTAL
CONSULTING ENGINEERS
MAINSFIELD • WICHITA FALLS
817-583-1144

130 ENVIRONMENTAL PARK

**APPENDIX IIC
TRANSPORTATION STUDY**

May 28, 2014

 COPY

Mr. Matthew Udenenwu
Texas Commission on Environmental Quality
MC-124
P.O. BOX 13087
Austin, Texas 78711-3087

Re: 130 Environmental Park [Landfill] - Caldwell County
Municipal Solid Waste (MSW)- Permit Application No. 2383
Permit Application - Application Summary for Agency Review
Tracking No. 17458939; CN604375972/RN106897036

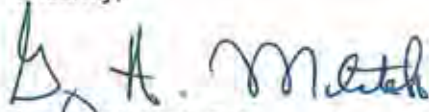
Dear Mr. Udenenwu:

This letter serves as notice that the Texas Department of Transportation's review of the Application Summary for the referenced municipal solid waste facility located on the NE corner of the US183/SH130 and FM1185 intersection in Caldwell County, Texas, is complete. The following are final comments.

Access mitigation as mentioned in Type I Permit Application Appendix IIC Transportation Study on sheet IIC-33, page 26 and dated 02-12-14 is satisfactory. No other issues remain.

If you have any further questions or require additional information please contact Imelda Barrett, P.E., Director of Transportation Operations, at (512) 832-7115.

Sincerely,



Greg A. Malatek, P.E.
Austin District Engineer

cc: Imelda L. Barrett, P.E., Director, Transportation Operations, Austin District, TxDOT
Gary Morris, Permit Office, Austin District, TxDOT