

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



AN ORDER GRANTING THE APPLICATION BY 130 ENVIRONMENTAL PARK, LLC, FOR A NEW TYPE I MUNICIPAL SOLID WASTE LANDFILL IN CALDWELL COUNTY, TEXAS; TCEQ Docket No. 2015-0069-MSW; SOAH Docket No. 582-15-2082

On September 6, 2017, the Texas Commission on Environmental Quality (Commission or TCEQ) considered an application by 130 Environmental Park, LLC (130EP) for a new Type I Municipal Solid Waste Landfill in Caldwell County, Texas. A proposal for decision (PFD) was presented by Administrative Law Judges (ALJs) Casey A. Bell and Kerrie Jo Qualtrough with the State Office of Administrative Hearings (SOAH), who conducted an evidentiary hearing concerning the application on August 15-26, 2016, in Austin, Texas.

After considering the ALJs' PFD, the Commission adopts the following findings of fact and conclusions of law:

I. FINDINGS OF FACT

Background

1. 130EP filed Application No. 2383 (the Application) for a permit to construct and operate the 130EP Landfill (Facility).
2. The Facility will be a new Type I municipal solid waste landfill facility located in Caldwell County, Texas.
3. The land on which the Facility will be constructed and operated (Site, Permit Boundary, or Facility Boundary) consists of 519.746 acres located in northern Caldwell County,

approximately 0.6 miles east of State Highway 130 (SH 130) and US Highway 183 (US 183) and 0.7 miles north of FM 1185, more than two miles north of the city limits of Lockhart, Texas.

4. The Site is part of a 1,229.076-acre tract of land (Hunter Tract) owned by Cathy Moore Hunter.
5. The Facility will include a municipal solid waste landfill unit (Landfill), with a waste management unit boundary (Landfill footprint) of approximately 202 acres, a large item storage area, a reusable materials staging area, a citizens' convenience center, a used/scrap tire storage area, a wood waste processing area, a leachate storage facility, and a truck wheel wash.
6. The 130EP Transfer Station is a Type V municipal solid waste transfer station authorized by TCEQ Registration No. 40269 (issued by TCEQ on February 5, 2015) with a facility boundary consisting of the same 519.746 acres as the Site.
7. 130EP filed the registration application for the 130EP Transfer Station with the TCEQ on September 4, 2013.

Procedural History

8. 130EP filed Parts I and II of the Application on September 4, 2013, which the Executive Director (ED) of the TCEQ declared administratively complete on September 27, 2013.
9. 130EP filed Parts III and IV of the Application on February 18, 2014, and the ED declared those parts administratively complete on February 28, 2014.
10. The Notice of Receipt of Application for Land Use Compatibility Determination for a Municipal Solid Waste Permit for Parts I and II of the Application was published on October 24, 2013, in the *Austin American-Statesman* in Travis County, Texas, and in the *Caldwell County Guardian*, the *Lockhart Post-Register*, and in Spanish in *El Mundo*, in Caldwell County, Texas. The Notice of Receipt of Application and Intent to Obtain Municipal Solid Waste Permit was published on April 17, 2014, in those same newspapers.
11. On June 12, 2014, the ED held a public meeting in Lockhart, Texas, regarding the Application. Notice of that meeting was published on May 22, May 29, and June 5, 2014, in the *Caldwell County Guardian* and the *Lockhart Post-Register*.
12. The ED determined that the Application was technically complete on October 28, 2014.
13. The Notice of Application and Preliminary Decision was published on December 4, 2014, in the *Caldwell County Guardian*, the *Lockhart Post-Register*, and in Spanish in *El Mundo*.
14. The ED held a second public meeting on January 8, 2015, in Lockhart, and notice of that meeting was published on December 18, December 25, 2014, and January 1, 2015, in the *Lockhart Post-Register*.

15. The public comment period for the Application ended on January 8, 2015.
16. On January 16, 2015, 130EP requested that the Application be referred to SOAH for a contested case hearing.
17. The ED prepared a draft permit (Draft Permit), a technical summary of the Application, and a compliance history report.
18. The TCEQ's Chief Clerk referred the Application directly to SOAH for a hearing on whether the Application complies with all applicable statutory and regulatory requirements.
19. On February 4, 2015, the TCEQ issued a Notice of Hearing regarding the Application, which was published on February 19, 2015, in the *Lockhart Post-Register* and the *Caldwell County Guardian* and mailed to the required persons on February 23, 2015.
20. On March 26, 2015, SOAH ALJs Casey A. Bell and Sharon Cloninger held a preliminary hearing in Lockhart, Texas. The ALJs found that notice had been properly given and that SOAH had jurisdiction over this matter. The ALJs further admitted the following persons and entities as parties to the contested case hearing: Environmental Protection in the Interest of Caldwell County (EPICC) and TJFA, L.P. (TJFA) (collectively "Protestants"), Caldwell County (County), Plum Creek Conservation District (District), James Abshier, Claudia and Robert Brown, Ann and Troyce Collier, Byron Friedrich, the King Family Trust, Brenda Martin, Frank Sughrue, Bill and Pam Young, and Joe Colley. Ben Pesl was also admitted as a party but did not participate in the contested case hearing.
21. On April 9, 2015, the ED filed his Amended Response to Public Comments (RTC) addressing the comments submitted to the TCEQ regarding the Application. During preparation of the RTC, the ED requested additional information, and 130EP supplemented the Application on March 17, 2015, in response.
22. The parties conducted discovery during 2015 and 2016. As a result of a discovery dispute, Protestants sought leave to enter the Site to conduct geophysical probes of 130EP's piezometers; drill up to 15 borings on the Site; perform in-situ testing of the soils at the Site, including tests of hydraulic conductivity; and collect samples to be tested at a lab. The ALJs allowed these parties to conduct discovery on the Hunter Tract, which they did during February and March 2016. In addition, 130EP conducted additional investigations, including soil borings and laboratory testing of collected soil samples. 130EP subsequently submitted the additional information to the ED as its May 2016 supplement to the Application.
23. On July 26, 2016, Protestants filed a motion seeking to strike certain portions of 130EP's prefiled testimony. The basis of Protestants' motion was 130EP's alleged spoliation, or destruction, of discoverable material regarding its geologic interpretation and characterization of the subsurface at the Site. On August 3, 2016, 130EP responded to Protestants' motion and disagreed with their assertions. However, an affidavit of

John Michael Snyder, P.G. confirmed that 130EP had destroyed boring samples and field logs pursuant to its consultant's retention policy and need for storage space.

24. On August 11, 2016, the ALJs issued Order No. 26, finding that 130EP had a duty to reasonably preserve discoverable material. 130EP breached its duty because it knew or should have known that there was a substantial chance that a contested case hearing on the Application would take place and that documents in its possession or control would be material and relevant to the hearing. By destroying the field logs and soil samples, 130EP precluded Protestants from conducting full discovery.
25. The ALJs overruled Protestants' motion to strike and admitted 130EP's prefiled evidence. The ALJs determined that striking 130EP's prefiled testimony was not appropriate because any remedy must be proportionate to the prejudice suffered by Protestants due to the destruction of the discoverable material. Because Protestants conducted an investigation at the Site outside of the discovery period as a result of their prior spoliation assertions, no other action was necessary to remedy the prejudice caused by 130EP's destruction of discoverable material.
26. On August 15-26, 2016, ALJs Bell and Kerrie Jo Qualtrough convened the evidentiary hearing at SOAH in Austin, Texas. The parties filed closing arguments on October 24, 2016, and responses to those closing arguments on November 28, 2016.
27. To accommodate a full discussion of the issues, the ALJs allowed the parties to submit reply briefs to respond to new arguments raised in Protestants' response to closing arguments. The parties submitted reply briefs on December 22, 2016, and the evidentiary record closed on that date.

Sufficiency of Property Rights

28. The current owner of the Site is Cathy Moore Hunter, a natural person.
29. 130EP entered into an agreement with Ms. Hunter for the purchase of the Hunter Tract. Prior to the development and operation of the Facility, 130EP will purchase the Hunter Tract, including the Site, from Ms. Hunter.
30. 130EP will own and operate the Facility.
31. The Application includes an affidavit executed by Ms. Hunter acknowledging: (1) the State of Texas may hold the property owner of record either jointly or severally responsible for the operation, maintenance, and closure and post-closure care of the Facility; (2) the owner of the Site has a responsibility to file in the deed records of Caldwell County an affidavit to the public advising that the Site will be used for a solid waste facility prior to the time that the Facility actually begins operating as a municipal solid waste landfill facility, and to file a final recording upon completion of disposal operations and closure of the landfill units in accordance with 30 Texas Administrative Code (TAC) § 330.19; and (3) the Facility owner or operator and the State of Texas shall have access to the Site during

the active life and post-closure care period after closure of the Facility for the purpose of inspection and maintenance.

32. The Application includes a boundary metes and bounds description of the Site and a drawing of that description, signed and sealed by a registered professional land surveyor.
33. The identifying reference of the current ownership record for the Site is Volume 533, Page 637 in the Official Public Records of Real Property of Caldwell County, Texas.
34. The District owns an easement on the Hunter Tract for the use and operation of the Site 21 Reservoir and Dam owned and operated by the District.
35. The Site 21 Reservoir and Dam are used for flood control to protect human life and property downstream.
36. The Application does not include the District's ownership of the easement on the Hunter Tract on the landowners list in the Application.
37. The District had actual notice of the Application and participated in the contested case hearing.
38. No solid waste unloading, storage, disposal, or processing operations shall occur within any easement, buffer zone, or right-of-way that crosses the Site.

Legal Authority, Evidence of Competency, and Compliance History

39. 130EP is a Georgia limited liability company that filed an application for registration with the Texas Secretary of State on August 20, 2013.
40. The Texas Secretary of State certified that 130EP is in existence in Texas.
41. Green Group Holding, L.L.C. is the sole member of 130EP, but it has no separate ownership interest in the Facility, the Site, or the Hunter Tract.
42. The Application accurately reflects that 130EP has not owned or operated a solid waste site in Texas within the last 10 years.
43. The Application accurately reflects that 130EP does not have a direct financial interest in any solid waste site other than the Facility.
44. The Application includes the names of the principals and supervisors of 130EP's organization, together with previous affiliations with other organizations engaged in solid waste activities.
45. The Application contains the number and size of each type of equipment 130EP will dedicate to Facility operations.

46. In a Compliance History Report prepared on October 3, 2014, the ED evaluated the compliance history of the Facility and classified the Facility and 130EP.
47. There was no compliance information regarding the Facility at the time the ED developed the October 3, 2014 Compliance History Report.
48. The compliance history classification for 130EP and the Facility is designated as “unclassified.”

Transportation, Traffic, and Airports

49. All vehicles traveling to and from the Facility will use northbound US 183 north of its intersection with FM 1185 and the access road for the Facility.
50. The access road for the Facility will extend from the east side of US 183 north of its intersection with FM 1185, across privately-owned property for roughly a mile, through the Facility entrance gate at the Permit Boundary, and continue past the scale house and scales, the citizens’ convenience center, and the truck wheel wash.
51. Roadways within one mile of the Facility that will be used for entering or leaving the Facility are shown on general locations maps in Part II of the Application: US 183, SH 130, and the grade-separated intersections of FM 1185 and Schuelke Road with US 183, all of which are hard-surfaced paved roads with asphalt pavement; and the access road for the Facility, which will be 40-foot wide and use the same section of asphalt pavement as US 183.
52. 130EP prepared a Traffic Impact Analysis (TIA) and submitted it on May 5, 2014, to the Texas Department of Transportation (TxDOT), the governmental entity with responsibility over SH 130 and US 183.
53. TxDOT approved the TIA on November 25, 2014.
54. The TIA included the volumes of background vehicular traffic on access roads within one mile of the proposed Facility, both existing and expected, during the life of the proposed Facility.
55. Reasonable projections of the volume of traffic expected to be generated by the Facility on the access roads within one mile of the Facility were set out in the TIA.
56. Vehicles traveling to and from the Facility will consist of waste route collection trucks, waste transfer trucks, small waste load vehicles, recycling trucks, miscellaneous trucks, and passenger cars.
57. The number of vehicles traveling to and from the Facility on a daily basis is projected to increase each year from the time the Facility begins operations in Year 1 until the time the Landfill reaches capacity, estimated to be Year 44.

58. The projected numbers of each type of vehicle traveling to and from the Facility on a daily basis in Year 1/Year 44 are: waste route collection trucks (110/216), waste transfer trucks (15/29), small waste load vehicles (25/49), recycling trucks (40/78), miscellaneous trucks (4/8) and passenger cars (40/79). The total projected number of vehicles traveling to and from the Facility on a daily basis is 234 in Year 1 and 459 in Year 44.
59. The Facility will contribute approximately 3.5% of the total traffic on US 183 in the area of the Site.
60. The existing roadway infrastructure, including northbound US 183, has adequate capacity to accommodate the traffic generated by the Facility.
61. On March 16, 2016, TxDOT issued a driveway permit authorizing the construction of the access road for the Facility and connection to northbound US 183.
62. As part of its review and consideration of the driveway permit request for the access road for the Facility, TxDOT considered issues related to structural integrity of the public roadways and the access road.
63. TxDOT's driveway permit authorized 130EP to construct a driveway with a deceleration lane on northbound US 183, 1,540 feet north of the US 183 intersection with FM 1185. TxDOT did not require an acceleration lane for traffic turning onto northbound US 183.
64. 130EP properly coordinated with TxDOT regarding traffic and location restrictions.
65. The proposed location of the Facility access road will provide adequate sight distance for vehicles exiting the Facility and turning onto US 183.
66. The roads to access the Facility will be available and adequate.
67. The access road from US 183 to the Permit Boundary crosses private property but is not included within the Permit Boundary in the Draft Permit.
68. The Draft Permit lists all of the "Facilities Authorized" by the permit, including the access road. All authorized facilities are within the Permit Boundary, except for the entire length of the access road.
69. [Deleted]
70. [Deleted]
71. The Application includes documentation of coordination with the Federal Aviation Administration for compliance with airport location restrictions.
72. There is no airport within a six-mile radius of the Site.

Geology and Soils

73. The Geology Report was prepared, signed, and sealed by John Michael Snyder, P.G., a qualified groundwater scientist with Biggs and Mathews Environmental, Inc. (BME).
74. The Geology Report identifies sources and references for the information included within it.
75. The Geology Report includes a description of the regional geology in the area of the Site, along with appropriate portions of published map series, including the Geologic Map of Texas, the Bureau of Economic Geologic Atlas of Texas, and mapping from the United States Geological Survey Geologic Database of Texas.
76. The Geology Report includes a description of the generalized stratigraphic column in the area of the Site, with specific information on each geologic unit.
77. The Geology Report includes a regional stratigraphic cross-section.
78. The Geology Report includes a description of the geologic processes active in the vicinity of the Site, including information about faulting and subsidence.
79. The Geology Report includes the results of investigations of subsurface conditions at the proposed location of the Landfill.
80. The Geology Report describes 32 borings drilled on the Site on behalf of 130EP in 2013 (the 2013 borings) and 11 borings drilled on the Site in 2016 (the 2016 borings) during boring programs supervised by Mr. Snyder to investigate, characterize, and test soils and to characterize groundwater (collectively referred to as the Soil Borings).
81. Seventeen additional borings were drilled and completed as piezometers to investigate and measure levels of groundwater at the Site.
82. The Soil Borings were drilled to depths of up to 130 feet below ground surface (bgs) using established field exploration methods, including rotary drilling with drilling fluid introduced when the material became too hard to drill dry.
83. All of the Soil Borings were at least five feet deeper than the elevation of the deepest excavation proposed for the Landfill. Eighteen of the 2013 borings and four of the 2016 borings were drilled to a depth at least 30 feet below the deepest excavation planned at the Landfill.
84. Samples were collected from the Soil Borings using Shelby tubes and split spoons and, in several borings where the presence of occasional cobbles and pebbles in the shallow subsurface clay prevented pushing tubes, samples at depths of one to seven feet bgs were collected from auger cuttings.

85. The number and locations of the Soil Borings were sufficient to establish subsurface stratigraphy, to obtain adequate samples for soil testing, and to determine geotechnical properties of the soils and rocks beneath the Facility.
86. The Geology Report includes boring logs, maps, and tables that provide detailed information for all of the 2013 borings and the piezometers.
87. The boring logs in the Geology Report contain all of the information required by 30 TAC § 330.64(e)(4).
88. The Geology Report includes narrative discussions describing Mr. Snyder's interpretations of the subsurface stratigraphy based upon the field investigation work BME conducted at the Site.
89. The boring logs included in the Geology Report were prepared by a qualified professional geoscientist (Mr. Snyder) and geotechnical engineer (Gregory W. Adams, P.E.) based on their personal observations of the samples and lab test results from such samples.
90. The Geology Report includes cross-sections, prepared using the Soil Borings and piezometers, depicting the generalized strata in the subsurface at the Site.
91. Regional stratigraphy includes geologic units of the Cretaceous Gulf Series Navarro Group, the Paleocene Midway and Eocene Wilcox Groups and Quaternary deposits of the Leona Formation.
92. The regional stratigraphic column in the Geology Report includes the Leona Formation, and the boring logs in the Geology Report shows the characteristic pebbles and gravel found in samples from all but one of the 43 borings drilled by BME.
93. The Site is located on an outcrop of the Midway Group. The Midway in the area consists primarily of dense, silty, fat clay (high plasticity inorganic clay) and, based on published literature, is between 400 and 600 feet thick beneath the Site.
94. Beneath the Midway there are several hundred feet of low permeability clays, marls, and limestones of the Navarro, Taylor, Eagle Ford, and Austin formations.
95. Mr. Snyder conducted a fault study of the Site based on the criteria in 30 TAC § 330.555, which found no evidence of faulting.
96. The area of the Site is not experiencing withdrawal of crude oil, natural gas, sulfur, or significant amounts of groundwater.
97. The area of the Site is not subject to differential subsidence, and there is no evidence of subsidence in the area.

98. Locations of known (mapped) faults within several miles of the Site are shown on the portions of regional geology maps included in the Geology Report and are all located more than 200 feet from the proposed landfill waste management unit boundary.
99. The faults located in the area of the Site are documented to have last moved 5 to 56 million years ago, well before the Holocene Epoch (the most recent 11,700 years).
100. There is no fault within 200 feet of the Site that has had displacement during the Holocene Epoch.
101. The logs of the Soil Borings and laboratory data from soil samples did not indicate the presence of poor foundation conditions such as soft clay or loose sand beneath the Landfill. The hand penetrometer values and unit dry weight results indicate that the subsurface clays are hard.
102. The settlement and heave analyses presented in the Application show that the Landfill components will not undergo detrimental differential settlement.
103. Evidence of mass movement of natural formations of earthen material on or in the vicinity of the Site was not observed at the Site, in the Soil Borings, or on geologic maps.
104. Evidence of karst terrain was not observed at the Site, in the Soil Borings, or on geologic maps of the area.
105. The Site is not located in a seismic impact zone and is not unstable, as those terms are defined by 30 TAC §§ 330.557 and 330.559, respectively.
106. Silty, fat, highly plastic clay was the dominant material encountered in all of the Soil Borings.
107. Based upon the investigation work conducted at the Site, the subsurface stratigraphy consists of three strata (beginning at the surface and continuing downward): Stratum I is up to 10 feet thick and consists primarily of brown to tan, silty fat clay with occasional discontinuous occurrence of small rock pieces, including cobbles (larger than about three inches), pebbles (between about one-quarter inch and three inches) and some gravel (smaller than pebbles). Stratum II ranges in thickness from about 30 to 60 feet and consists of weathered silty fat clay. Stratum III consists of hard, dense, dark gray silty fat clay, up to 77 feet of which was encountered in the Soil Borings.
108. The Geology Report includes laboratory report data describing the characteristics and geotechnical properties of soil samples from Stratum I, Stratum II, and Stratum III based on geotechnical tests performed in accordance with industry practice and recognized procedures, including permeability, sieve analysis, Atterberg limits, and moisture content.
109. The Geology Report includes discussion with conclusions about the suitability of the soils and strata for the uses for which they are intended. The vast majority of the soils at the Site will be suitable for use in construction and operation of the proposed Facility.

110. The May 2016 supplement to the Application presents information from the 2016 borings that is relatively consistent with the information obtained from borings drilled during the original subsurface investigation in 2013.
111. The May 2016 supplement includes minor revisions to several 2013 boring and piezometer locations and elevations and several tables and drawings.
112. BME's methodology in drilling the Soil Borings, sampling the soil, analyzing the samples and maintaining this information did not violate any TCEQ rule, was adequate for the work performed, and did not result in unreliable or inaccurate findings or conclusions.
113. The findings and conclusions set forth in the Geology Report, including the descriptions of the soil samples and geotechnical properties of the subsurface materials at the Site, are sufficiently complete, accurate, and reliable.
114. 130EP did not submit false information in the Geology Report.
115. Protestants conducted a subsurface investigation at the Site in 2016 that involved drilling 10 borings, taking 292 soil samples from those borings, and lab testing 11 of those soil samples.
116. The soil samples obtained by Protestants in 2016 and the results from testing on 11 of those samples generally support the basic findings and conclusions set forth in the Geology Report regarding the subsurface characteristics at the Site.
117. 130EP completed the 2013 borings before the plan for those borings prepared by Mr. Snyder was approved by the ED.

Hydrogeology

118. The Geology Report includes a description of the regional aquifers in the vicinity of the Site, the Carrizo-Wilcox and Leona formations, and included: those aquifers' associations with geologic units identified at the Site; their composition; their hydraulic properties; their water table or artesian conditions; their hydraulic connections; the available potentiometric surface map for the Carrizo-Wilcox; their estimated groundwater flow rates; their typical total dissolved solid content values; their areas of recharge; and the present use of their groundwater.
119. The Application also identified the five water wells within one mile of the Site and those wells' location and aquifers.
120. The Wilcox Formation outcrops east of the Site and in a northeast trending belt across Caldwell County. The Carrizo Formation occurs east and southeast of the outcrop of the Wilcox, approximately 12 miles southeast of the Site. The aquifer portions of these two formations are collectively known as the Carrizo-Wilcox.

121. The Carrizo-Wilcox is characterized by the Texas Water Development Board (TWDB) as a major aquifer.
122. Most groundwater produced in northern Caldwell County is from wells completed in the Carrizo-Wilcox Formation, located east of the Site.
123. The primary outcrop of the Leona Formation, from which some groundwater is produced, is located several miles south of the Site.
124. The Leona Formation is not characterized by the TWDB as either a major or minor aquifer.
125. Published literature shows no aquifers located beneath the Site.
126. There is very little groundwater present in the geologic formations at the Site, down to a depth of several hundred feet bgs.
127. Groundwater was not encountered during drilling in any of the Soil Borings prior to the introduction of drilling fluid.
128. Water level readings were taken in each of the 17 piezometers every month from October 2013 until May 2016. Water has been observed in only three of the 17 piezometers, all screened at the interface between Stratum II and Stratum III; one of those has been dry since November 2013, and another one has been dry since August 2015.
129. The Application included detailed data regarding the depths at which groundwater was encountered in the three piezometers.
130. Groundwater was only encountered in one of the borings drilled by Protestants, and it was found at a depth similar to the depth at which water was found in a nearby piezometer.
131. Laboratory permeability tests were performed on undisturbed soil samples from the Soil Borings in accordance with 30 TAC § 330.63(e)(5)(B), the applicable appendices from the United States Army Corps of Engineers (USACE), and applicable American Society of Testing and Materials standards.
132. There was not enough water encountered in any of the 17 piezometers to perform in-situ permeability testing.
133. Small amounts of groundwater occur at the Site in Stratum II at or just above its interface with Stratum III, and this zone is the uppermost aquifer below the Site as identified by the Application. There is no other aquifer beneath the Site, and no lower aquifers are hydraulically connected to the uppermost aquifer, as stated in the Application.
134. Groundwater at the Site does not occur in sufficient amounts at the Site to supply usable quantities to wells that could support industrial, irrigation, domestic, or livestock use.

135. The volume of water observed in the piezometers was sufficient for sampling and analysis in accordance with TCEQ Municipal Solid Waste rules.
136. The zone of groundwater occurrence on the Site satisfies the criteria used by the TCEQ Municipal Solid Waste Permits Section for characterization as an aquifer.
137. The zone of groundwater occurrence at the Site is not characterized as a major or minor aquifer by the TWDB, and there are no known wells completed in this zone within one mile of the Site.
138. The limited hydraulic conductivity of and lack of weathering effects in Stratum III result in its functioning as an aquitard or lower confining unit to the groundwater in Stratum II, thus creating a pathway for groundwater to move at the interface of Stratum II and Stratum III.
139. The differences in elevation of the Stratum II-Stratum III interface result from the topography of the Site, as the shape of the interface strongly resembles the surface topography.
140. Groundwater flow from the landfill footprint area may occur to the northwest, west, southwest, south, southeast, and east, as set forth in the Application.
141. The Application identifies the rates of groundwater flow at the Site.

Groundwater Monitoring

142. Any groundwater at the Site will move through the subsurface very slowly.
143. Groundwater at the Site could move more readily in Stratum II than in Stratum III.
144. In the event any contaminants were to migrate out of the Landfill and enter groundwater at the Site, the groundwater could move slowly downward and outward from the Landfill in Stratum II material above Stratum III.
145. A groundwater monitoring system for the Facility was designed by Mr. Snyder and is described in the Groundwater Sampling and Analysis Plan included in the Application.
146. The Groundwater Sampling and Analysis Plan includes a topographical map, an analysis of the most likely pathway(s) for pollutant migration in the event of a liner leak, and detailed plans and an engineering report describing the monitoring program.
147. The point of compliance groundwater monitoring system for the Facility will include 25 groundwater monitoring wells located downgradient from the Landfill footprint, around the northwest, west, southwest, south, southeast, and east perimeter of the Landfill, and spaced no more than 600 feet apart.

148. The groundwater monitoring system for the Facility will include one groundwater monitoring well located upgradient from (northeast of) the Landfill footprint.
149. The groundwater monitoring wells will be constructed with well screens (perforated portion of the pipe in the well where water can enter the well to be collected for laboratory analysis) starting at the Stratum II/Stratum III interface and extending upward for 20 feet.
150. The downgradient monitoring wells will be located at depths and locations to allow for the detection of contaminants in the uppermost aquifer.
151. The monitoring system has a sufficient number of wells at appropriate locations and depths to yield representative samples from the uppermost aquifer and includes a background monitoring well and wells installed to allow determination of the quality of groundwater passing the point of compliance and to ensure detection of groundwater contamination in the uppermost aquifer.
152. The groundwater gradient evaluation included in the Application shows that groundwater would flow in a southerly or easterly direction from the south end of the Landfill, and not toward the area 200 feet southeast of the Landfill footprint that could physically serve as a pathway for leachate migration.
153. The groundwater monitoring system calls for several wells to be installed between the Landfill footprint and the area 200 feet southeast of the Landfill footprint that could physically serve as a pathway for leachate migration.
154. The groundwater monitoring system is adequately designed to detect contamination in the uppermost aquifer.
155. The site-specific technical data used by Mr. Snyder in the development of the groundwater monitoring system was sufficiently accurate and reliable.

General Facility Design

156. Access to the Facility will be controlled by a perimeter fence consisting of barbed wire, woven wire, wooden fencing, plastic fencing, pipe fencing, or other suitable material located along the Facility Boundary, and a locking gate at the Site entrance.
157. The gate will be constructed of suitable fencing materials and will be locked when the Landfill is not accepting waste.
158. The Application describes how the fencing and gate at the Facility should prevent the entry of livestock, protect the public from exposure to potential health and safety hazards, and discourage unauthorized entry or uncontrolled disposal of solid waste or prohibited materials.
159. The Application contains a generalized process design and working plan of the Facility.

160. The Application contains flow diagrams indicating the storage, processing, and disposal sequences for the various types of wastes received at the Facility.
161. The Application contains schematic view drawings showing the various phases of collection, separation, processing, and disposal for the types of wastes to be received at the Facility.
162. The Application contains ventilation and odor control measures for each storage, separation, processing, and disposal unit at the Facility.
163. The Application contains generalized construction details of all storage and processing units, including slabs and subsurface supports, and locations and engineering design details of all containment dikes or walls.
164. The Application includes general details provided regarding the size of the slabs, the number and size of the rebar and supports, and additional provisions for the subsurface structures.
165. Grease, oil, and sludge will not be accepted or stored at the Facility.
166. The Application describes how all liquids resulting from the operation of solid waste processing facilities will be disposed of.
167. Processing facilities at the Site will be designed to facilitate proper cleaning by controlling surface drainage in the vicinity of the Facility to prevent surface water runoff onto, into, and off of the treatment area, and including walls and floors of masonry, concrete, or other hard-surfaced materials in operating areas.
168. The surface water drainage design will manage runoff and runoff during the peak discharge from the 25-year, 24-hour storm event to minimize surface water running onto, into, and off of waste processing and storage areas and prevent the off-site discharge of waste and feedstock material.
169. The Facility has been designed to keep contaminated surface water (water that may have come into contact with waste) separated from uncontaminated stormwater runoff.
170. Contaminated water will not be discharged to the surface water management system to be constructed at the Site.
171. The Application indicates that all contaminated water, including surface or groundwater that becomes contaminated, will be managed in a controlled manner and handled, stored, treated, and disposed of in accordance with 30 TAC § 330.207.
172. Prior to commencing operations at the Facility, 130EP will submit a notice of intent to operate pursuant to a general stormwater discharge permit (Texas Pollutant Discharge Elimination System (TPDES) General Permit No. 050000).

Waste Management Unit Design

173. The Application describes how the Facility is designed for rapid processing and minimum detention of solid waste, and states that solid waste capable of creating health hazards or nuisances will be stored indoors, transferred, or processed promptly, and not allowed to cause nuisances or health hazards.
174. The Application provides design features for the waste storage units that will prevent the creation of nuisances and public health hazards due to odors, fly breeding, or harborage of other vectors.
175. The Application adequately explains how storage and transfer units at the Facility are designed to control and contain spills and contaminated water from leaving the Facility.
176. The Facility will have all-weather access from US 183, a publically-owned road.
177. The Facility will have all-weather access from the entrance of the Facility to unloading areas used during wet weather.
178. The Facility access road will be constructed of crushed stone, gravel, concrete rubble, masonry rubble, wood chips, or other similar materials to provide access to the disposal area during all weather conditions.
179. Tracking of mud onto public roads will be minimized by the all-weather surfaces of the Facility access road and the entrance road and a truck wheel wash.
180. The development method for the Landfill will be a combination of area-excavation fill followed by aerial fill to the Landfill completion height.
181. The elevation of deepest excavation will be 501.9 feet mean sea level (ft/msl).
182. The maximum elevation of final cover will be 736 ft/msl.
183. The maximum elevation of disposed waste will be 731.5 ft/msl.
184. The total volume available for waste disposal will be approximately 33.1 million cubic yards (waste and daily cover), which will provide an estimated 44 years of Site life.
185. The Application contains calculations and assumptions for the waste volume, rate of deposition, and Site life estimate.
186. The Application contains a sufficient number of landfill unit cross-sections consisting of plan profiles across the Facility that accurately depict the proposed depths of all fill areas within the Facility.
187. The landfill unit cross-sections show boring logs obtained from the soils report on the profiles.

188. Construction and design details of compacted perimeter or toe berms are included on the fill cross-sections.
189. The Application contains a properly-prepared liner quality control plan.
190. The vast majority of the excavated soils at the Site meet the requirements for use as source materials for the Landfill liner and cover.
191. No soil balance test was required or warranted to meet regulatory requirements regarding the waste management unit design.
192. The two-dimensional model used by Mr. Adams for his slope stability analysis is more conservative than a three-dimensional model; further, it is the standard in the industry and has been for many years, and it is successful in adequately predicting potential failures of landfill slopes.
193. Inclusion of the side slope swales into the slope stability model would not have made a significant difference in terms of the calculated safety factors.
194. No specific stability analysis was necessary for the side slope swales themselves, and the the likelihood of a collapse of the liner due to a breach of one such swale causing a large-scale failure of the Landfill slope is extremely small.
195. The soil stability analysis included in the Application properly evaluates the stability of the Landfill and adequately predicts the failure potential of the excavation slope, liner slope, interim waste slope, final waste slope, and final cover slope.

Landfill Gas Monitoring

196. The Application includes a landfill gas management plan (LGMP), developed by J. Heath Parker, as required by 30 TAC § 330.63(g).
197. Mr. Parker has managed and participated in the design of landfill gas collection and control systems for over 50 landfills in ten different states, including Texas, and has prepared and submitted to TCEQ original and amended landfill gas management plans for 20 to 30 landfills, all of which were approved.
198. The LGMP describes the mechanisms to be employed at the Facility for quarterly monitoring of landfill gas, including sufficient information regarding the time lines and procedures for installation and a sufficient description of monitoring and maintenance procedures.
199. The LGMP includes a perimeter methane monitoring system consisting of 33 permanent monitoring probes outside the Landfill footprint and inside the Facility Boundary to detect any landfill gas migration.

200. The probes are designed to monitor soil strata above the lowest current or planned elevation of waste within 1,000 feet of the probe.
201. The monitoring probes will be no more than 600 feet apart and will be closer together (300 feet apart) on the northern side of the Facility given the nearby residences there.
202. The probes are air and water tight and will not be affected by surface water.
203. Placement of some of the probes within the 100-year floodplain, in order to keep proper spacing, was appropriate.
204. The LGMP includes provisions for three continuous methane monitors to be located in the gatehouse, the maintenance building, and the transfer station.
205. The methane monitors will provide audible alarms if methane concentrations exceed 1.25% methane by volume.
206. There are no underground utility lines or easements that enter or exit the Facility boundary.
207. The LGMP includes procedures and standards for methane monitoring.
208. Soil conditions, hydrogeologic and hydraulic conditions surrounding the Facility, the location of Facility structures and property boundaries, and the provisions of 30 TAC § 330.371 were considered in determining the type and frequency of methane monitoring.
209. The LGMP describes the actions that the Facility must take if methane levels are detected in excess of the prescribed limits.
210. The LGMP includes a back-up plan to be used if any installed monitoring probes or continuous monitoring devices become unusable or inoperative.
211. The LGMP provides for including applicable documentation, including monitoring records for landfill gas monitoring probes, in the site operating record.
212. Mr. Parker's consideration of the soil and hydrogeological conditions at the Site as described in the Geology Report in developing the LGMP was reasonable.
213. Mr. Parker evaluated the hydraulic conditions surrounding the Facility in determining the type and frequency of landfill gas monitoring, although they did not impact the design of the LGMP.
214. The possibility of any landfill gas contamination of intermittent streams on the Site is slight.

Endangered or Threatened Species

215. The Application contains an evaluation of endangered or threatened species for the Hunter Tract.
216. 130EP contacted the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department for locations and specific data relating to endangered and threatened species.
217. Five threatened or endangered species have the potential to occur within the Hunter Tract: the wood stork, the golden orb, the Texas pimpleback, the Texas horned lizard, and the timber rattlesnake.
218. The wood stork, the golden orb, the Texas pimpleback, the Texas horned lizard, and the timber rattlesnake are not federally-listed threatened or endangered species, and no critical habitat has been designated for those species.
219. Portions of the study area that may provide suitable habitat for the state-listed wood stork, golden orb, and Texas pimpleback are limited to the aquatic habitat in the Site 21 Reservoir. This potential aquatic habitat is away from the area that would be impacted by development of the Facility. Therefore, destruction or adverse modification of those potential habitats is not expected to occur.
220. The Site Operating Plan in the Application includes a species protection plan that provides criteria for the protection of endangered or threatened species that have the potential to occur within the Hunter Tract.
221. The Facility and its operation will not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species.

Wetlands

222. The Application includes a wetlands determination under applicable federal, state, and local laws and identifies wetlands located within the Facility Boundary.
223. The USACE issued a June 20, 2014 letter approving 130EP's wetlands jurisdictional determination and authorizing construction of the roadway crossings of streams associated with the access road for the Facility pursuant to Nationwide Permit No. 14.
224. The federal definition of "wetlands" in 33 C.F.R. § 328.3(c)(4) is "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

225. The applicable state definition of “wetland” is nearly identical to the federal definition, but the state definition does not include man-made wetlands of less than one acre.
226. The state definition of “wetland” does not conflict with the federal definition in a municipal solid waste permitting situation.
227. There are 20 areas, totaling 1.46 acres in size, of wetlands located within the Facility Boundary.
228. There are 12 areas, totaling 0.68 acres in size, of non-jurisdictional wetlands located within the Landfill footprint, each of which is a man-made wetland of less than one acre.
229. There are no wetlands located within the Landfill footprint that meet the state’s definition of wetland.
230. The Landfill will not be located in wetlands that meet the state’s definition of wetland.
231. No municipal solid waste storage or processing facilities at the Facility will be located in wetlands.
232. There is no requirement applicable to the Facility under Clean Water Act § 404 or state wetlands laws to rebut the presumption that a practicable alternative to the Landfill is available that does not involve wetlands.
233. The construction and operation of the Landfill will not cause or contribute to violations of any applicable state water quality standard.
234. The construction and operation of the Landfill will not violate any applicable toxic effluent standard or prohibition under the Clean Water Act § 307.
235. The construction and operation of the Landfill will not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat.
236. The construction and operation of the Landfill will not violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary.
237. The Landfill will not cause or contribute to a significant degradation of wetlands as wetlands are defined under either federal or state law.
238. The Application demonstrates the integrity of the Landfill and its ability to protect ecological resources.

Surface Water and Drainage

239. The Application includes a map showing wells, springs, and surface water bodies within one mile of the Site.
240. The Site is located in the San Marcos River drainage basin.
241. An unnamed tributary to Dry Creek traverses the Hunter Tract in a northwest to southeast direction.
242. Dry Creek traverses the Hunter Tract in a northeast to southwest direction.
243. The Site 21 Dam located on Dry Creek approximately 3,000 feet south of the Site is operated and maintained by the District to impound water in the Site 21 Reservoir.
244. An unnamed tributary to Dry Creek enters the Site 21 Reservoir south of the Site.
245. Dry Creek exits the Site 21 Reservoir to the south and enters Plum Creek approximately six miles south of the Site. Plum Creek flows generally in a northwest to southeast direction, and enters the San Marcos River approximately 23 miles downstream from the Site.
246. Surface topography of the Site area generally slopes to the south toward Dry Creek or its unnamed tributaries and ultimately to the Site 21 Reservoir.
247. Large portions of the Hunter Tract are within the 100-year floodplain.
248. Surface water from the Landfill footprint area flows to the south into the Site 21 Reservoir, either via the unnamed tributary or Dry Creek.
249. The Application includes a facility surface water drainage report with facility surface water drainage design information, narrative discussion, drawings, and calculations.
250. The surface water drainage design report includes analyses of the existing conditions, post-development conditions, and design of the surface water management system including final cover drainage facilities, drainage swales, downchutes, perimeter drainage channels, detention and sedimentation ponds, and outlet structures, and also includes an erosion and sediment control plan for all phases of Facility development.
251. The surface water drainage design report includes drawings showing the off-site and on-site drainage areas, in both the existing (prior to Facility development) and post-developed (after Facility development) conditions.
252. The surface water drainage design report includes calculations and designs of surface water collection, drainage, and detention facilities to manage the water volume resulting from a 24-hour, 25-year storm event.

253. All uncontaminated surface water from the Landfill footprint area will be routed through the Facility detention and sedimentation ponds before entering Dry Creek or its tributary.
254. Surface water entering the Facility Boundary from the north will be conveyed around the Landfill footprint and will exit the Facility Boundary on the south.
255. The Facility runoff control system will prevent flow onto the active portion of the Landfill and treatment areas during the peak discharge from at least a 25-year rainfall event.
256. The Facility runoff management system from the active portion of the Landfill is designed to collect and control at least the water volume resulting from a 25-year, 24-hour storm.
257. The surface water drainage design will manage runoff and runoff during the peak discharge from the 25-year, 24-hour storm event to minimize surface water running onto, into, and off of waste processing and storage areas and prevent the off-site discharge of waste and feedstock material, including processed or stored materials.
258. The surface water drainage design report includes a description of the methods and calculations used to estimate peak flow rates and runoff volumes: USACE HEC-HMS computer program, the Rational Method, the Universal Soil Loss Equation, and TxDOT's Hydraulic Design Manual, October 2011.
259. The modeling inputs regarding shallow concentrated flow lengths and Manning's Roughness coefficients were reasonable and appropriate.
260. The surface water drainage design report includes drainage analyses, including 25-year peak discharge, volume, and velocity, for both existing and post-developed conditions.
261. The surface water drainage design report includes a comparison of existing and post-developed conditions regarding peak discharge, volume, and velocity.
262. The post-development stormwater discharge points are consistent with the existing site configuration.
263. Development of the Facility will not adversely alter peak flow rates, velocities, or runoff volumes at the Permit Boundary or downstream of the Permit Boundary.
264. Existing drainage patterns will not be adversely altered by development of the Facility.
265. The top surfaces and external embankment slopes of the Landfill are designed to minimize erosion and soil loss during all phases of landfill operation, closure, and post-closure care.
266. Estimated peak velocities for top surfaces and external embankment slopes will be less than the permissible non-erodible velocities under similar conditions.
267. Potential soil loss will not exceed the permissible soil loss for comparable soil-slope lengths and soil-cover conditions.

268. The surface water protection and erosion control practices will provide long-term, low maintenance geotechnical stability to the final cover.
269. The Facility has been designed to keep contaminated surface water (water that may have come into contact with waste) separated from uncontaminated stormwater runoff. Contaminated water will not be discharged to the surface water management system to be constructed at the Site.
270. Because all contaminated water will be managed in a controlled manner, groundwater will be protected.
271. Surface or groundwater that has become contaminated by contact with the working face of the Landfill or with leachate will be properly handled, stored, treated, and disposed of.
272. The design and operation of the Facility—including the Landfill, waste processing and storage facilities, and the surface water management system—will prevent the discharge of solid waste, pollutants, dredged or fill material, and nonpoint source pollution.

Floodplains

273. The Application includes the portion of the relevant Federal Emergency Management Agency (FEMA) floodplain map (Map Number 48055C1025E; effective date: June 19, 2012) that encompasses the Site and surrounding area.
274. The FEMA Flood Insurance Rate Map (FIRM) in the Application shows (as Zone A) the 100-year floodplain in the area of the Site.
275. 130EP added the Facility Boundary, the Hunter Tract, the proposed Landfill footprint, and the limits of landfill grading to the FEMA FIRM in the Application.
276. The FEMA FIRM in the Application shows that the 100-year floodplain extends onto portions of the Site, but the Landfill footprint is outside the 100-year floodplain.
277. The Application includes a detailed flood study of the Site and surrounding area.
278. The methods employed in the detailed flood study, including the use of USACE HEC-HMS and HEC-RAS computer programs (used in the hydrologic and hydraulic analyses, respectively), are reasonable and appropriate.
279. The detailed flood study determined the 100-year floodplain water surface elevations and the extent of the 100-year floodplain at the Site and in the area around it for existing and post-developed conditions.
280. The detailed flood study shows that the Landfill footprint will be outside the 100-year floodplain.

281. The detailed flood study shows that waste processing and/or storage units at the Facility will not be located in a 100-year floodplain.
282. A “high-hazard” dam is one where a dam failure would cause catastrophic damage and loss of life downstream of the dam. The term does not reflect the condition of the dam or its structural integrity.
283. The Site 21 Dam is a high-hazard dam and would be downstream of the Landfill if the Facility is constructed.
284. The Site 21 Dam does not currently meet the dam safety criteria for high-hazard dams to prevent breaching of the spillway and embankment.
285. To bring the Site 21 Dam up to the design criteria for a high-hazard dam, the Natural Resources Conservation Service (NRCS) proposed a rehabilitation plan for the dam. One rehabilitation alternative would entail the installation of a new principal spillway with a crest elevation of 500 feet and a 42-inch diameter conduit at the Site 21 Dam. The current auxiliary spillway would be replaced with a 300-foot-wide, roller-compacted, concrete spillway, and the dam crest would be raised approximately 3.9 feet. This alternative as proposed by NRCS would not increase the floodplain on the Hunter Tract.
286. Waste disposal operations at the Facility will not be located in a 100-year floodway.
287. The Landfill will not be located in a 100-year floodplain.
288. Waste processing and/or storage units at the Facility will not be located in a 100-year floodplain.
289. The proposed municipal solid waste management units at the Facility will not be located in a 100-year floodplain.

Land-Use Compatibility

290. The Application includes a map showing the Facility Boundary and actual uses within the Site and within one mile, including the location of residences, commercial establishments, ponds and lakes, and roads serving the Facility.
291. The Application includes maps showing the locations of drainage, pipeline, and utility easements within the Site.
292. 130EP updated the land-use map as of September 2015.
293. Within one mile of the Site, 4,083 acres (93.1%) are open and agricultural use land, which is the predominant land use within one mile.
294. Within one mile of the Site, 65 acres (1.5%) are comprised of stock tanks and the Site 21 Reservoir.

295. Within one mile of the Site, 234 acres (5.3%) are used as single-family residences. There are 143 residences located within one mile of the Site.
296. The nearest residence is approximately 185 feet west of the Facility Boundary and approximately 345 feet west of the Landfill footprint.
297. Within one mile of the Site, five acres (0.1%) are used for commercial/industrial purposes, and five commercial establishments are located within one mile of the Site.
298. The nearest business establishment is approximately 4,000 feet southwest of the Site and more than 6,500 feet from the Landfill footprint.
299. There are no schools, day-care centers, churches, hospitals, cemeteries, recreational areas, or sites having exceptional aesthetic quality within one mile of the Site.
300. Within one mile of the Site, there are five archaeological sites and three historic sites. There are no historically significant sites or archaeologically significant sites within one mile of the Site.
301. There are no water wells within 500 feet of the Site.
302. There are three dry hole oil/gas wells within 500 feet of the Site, one of which is located within the Permit Boundary but approximately 1,800 feet from the Landfill footprint.
303. Within five miles of the Site, population growth from 2000 to 2010 was less than 5%, except to the south, where northern Lockhart lost population, based on United States census data.
304. Within one mile of the Site, the number of residences has increased from 126 residences to 143 residences from 2013 to 2015, based on a review of aerial photography and field inventories.
305. The presence of SH 130 is the primary factor influencing growth trends in the area of the Site.
306. Growth trends will continue from the north into the area within a five-mile radius of the Site.
307. The area within one mile of the Site is sparsely populated.
308. The Facility will have access to a major transportation network without the need to use local roads or impact local properties.
309. The growth rate in the vicinity of the Site is relatively low compared to the very high growth rate of the Metropolitan Statistical Area in which the Facility is located.

310. The Facility will have setbacks and buffer zones that exceed TCEQ standards.
311. Visibility of the Facility from off-site will be limited by existing topography, naturally-occurring tree lines and the vegetated landscaping plan for the Facility that includes a screening berm.
312. The Site 21 Reservoir is the predominant current land use on the Hunter Tract.
313. The District is responsible for the operation of the Site 21 Dam to ensure that it functions as intended. The District's easement on the Hunter Tract allows the District to fulfill its duties.
314. The purpose of the Site 21 Reservoir and Dam is to retard flood flows for the protection of downstream life and property.
315. The final design of any future rehabilitation of the Site 21 Dam to bring it into compliance with high-hazard dam safety criteria will consider the then-existing upstream land uses, including the Facility if it exists.
316. On December 9, 2013, the Caldwell County Commissioners Court adopted the Caldwell County Solid Waste Disposal Ordinance (Disposal Ordinance). The Disposal Ordinance authorizes the disposal of solid waste in one location on property owned by the County and prohibits the disposal of solid waste in all other portions of Caldwell County.
317. The County adopted its Disposal Ordinance three months after 130EP filed its Application on September 4, 2013.
318. The Disposal Ordinance regulates land-use activities in the vicinity of the proposed Landfill.
319. Evidence in the record does not indicate where the Disposal Ordinance allows solid waste to be disposed of within the County, relative to the location of the Facility.
320. Considering all relevant factors, the Facility will not adversely impact human health and the environment and will be compatible with surrounding land uses.

Local Regulations/Approvals

321. The Capital Area Council of Governments (CAPCOG) and the TCEQ have adopted a regional solid waste management plan (Regional Plan) that covers 10 counties in central Texas, including Caldwell County.
322. The Application includes documentation that Parts I and II of the Application were submitted for review to CAPCOG for compliance with the Regional Plan.
323. CAPCOG conducted a conformance review of the Application and determined that it is in conformance with the CAPCOG Regional Plan.

324. The Application and the Facility are in conformance with the Regional Plan.
325. When the County adopted the Disposal Ordinance, the Application for the 130EP Landfill permit was pending at the TCEQ.
326. When the County adopted the Disposal Ordinance, the County sought to prohibit the processing or disposal of municipal or industrial solid waste in an area of the County for which an application for a permit or other authorization under Texas Health and Safety Code ch. 361 had been filed with and was pending before the TCEQ.
327. The County's Disposal Ordinance does not prevent the TCEQ from granting the Application and issuing the permit.
328. Portions of the access road will cross the 100-year floodplain.
329. 130EP has not obtained the required floodplain development permit from the County and did not submit the floodplain development permit with its Application.
330. The Draft Permit contains special provisions to address this deficiency. The use of special provisions in the permit matter is a common practice at the TCEQ to address similar types of deficiencies involving approvals from other governmental entities.

Site Operating Plan

331. Part IV of the Application is the Site Operating Plan for the Facility.
332. The Site Operating Plan for the Facility includes provisions for site management and operating personnel.
333. The Site Operating Plan includes a description of functions and qualifications for each category of key and supervisory personnel.
334. The Site Operating Plan includes a description of the equipment to be used at the Facility and provisions for back-up equipment.
335. The Site Operating Plan includes a description of general instructions for operating personnel to follow.
336. The Site Operating Plan identifies the applicable training requirements that will be followed.
337. The Site Operating Plan includes procedures for the detection and prevention of the disposal of prohibited wastes at the Facility, including: procedures to control the receipt of prohibited waste; records of all inspections of incoming waste; training for appropriate personnel regarding recognition of prohibited waste; and notification to the ED of any

incident of disposal of regulated hazardous waste or polychlorinated biphenyls at the Landfill and provisions for remediating such incident.

338. The Site Operating Plan describes the personnel training programs for the Facility, including a description of all minimum training requirements based on subject matter.
339. The Site Operating Plan includes provisions related to training employees, including training for record keeping, license requirements, detection, prevention of disposal of prohibited waste, fire protection and response, site inspection, site safety, site access, and maintenance.
340. The Site Operating Plan includes the minimum number, size, type, and function, of the equipment to be utilized at the Facility based on the estimated waste acceptance rate.
341. The Site Operating Plan indicates that backup equipment will be provided from contractors or local rental companies in the event of a breakdown or maintenance to avoid interruption of waste services.
342. The Site Operating Plan provides procedures, including a screening program, for the detection and prevention of the disposal of prohibited wastes.
343. The Site Operating Plan's detection and prevention program includes training for Site personnel to know in detail what the prohibited wastes are, how to perform a random inspection, how to control site access, and what procedures are required in the event of identification of prohibited wastes.
344. The Site Operating Plan provides adequate controls for screening of prohibited wastes.
345. The Site Operating Plan contains general and specific instructions for site operations and site safety.
346. The Site Operating Plan contains calculations demonstrating the adequacy of the earthen material and showing that the type and amount of equipment listed in the Site Operating Plan will be able to transport the volume of earth required to cover the active working face with a minimum six-inch soil layer from the earthen material stockpile within one hour of detecting a fire.
347. There will be sufficient soil available at the Site to ensure that waste is covered with a six-inch layer of earthen material within an hour of fire detection.
348. The Site Operating Plan contains a fire protection plan that identifies the fire protection standards to be used at the Facility and how personnel are trained.
349. The Site Operating Plan contains adequate provisions for control of access, including an inspection and maintenance schedule, notification to the TCEQ's regional office of a breach, provisions for temporary and permanent repairs, and notification to the TCEQ's regional office of completion of a permanent access control breach repair.

350. The Site Operating Plan identifies the maximum size of the area at the Facility for unloading solid waste, which is 0.5 acres with a maximum width of approximately 200 feet, and the number and types of unloading areas at the Facility.
351. The Site Operating Plan explains the general methods and frequencies for disease vector control, which include minimizing the size of the active working face; placing daily, intermediate, and final cover; adhering to the ponded water plan; the use of other approved methods when needed; following the detailed procedures described in the Site Operating Plan; and applying pesticides should daily operations not control vectors.
352. The Site Operating Plan specifies the all-weather surface entrance, access, and internal roads; speed bumps along the main access roads between the fill areas and the gatehouse; weekly grading; the truck wheel wash station; and daily removal and pickup as methods for minimizing the tracking of mud and associated debris onto public roads.
353. The Site Operating Plan specifies that grading equipment will be used weekly to control mud and to minimize depressions, ruts, and potholes.
354. The Site Operating Plan specifies that incoming waste will be spread in layers and thoroughly compacted by repeated passes of a landfill compactor weighing in excess of 40,000 pounds.
355. The Site Operating Plan describes the daily cover that will be used at least once every 24 hours at the Facility as a means to control disease vectors, fire, odor, windblown litter and scavenging.
356. The Site Operating Plan describes how intermediate cover of soils and/or vegetative growth, or other suitable erosion control mechanisms, will be used at the Facility for all areas that will receive additional waste but may be inactive for more than 180 days.
357. The Site Operating Plan explains that alternative daily cover may be used only after the same has been proposed to and authorized by the TCEQ.
358. The Site Operating Plan describes the final cover for the Landfill, including an explanation of the components of the final cover, slope range and drainage control, with reference to Part III of the Application, Attachment H - Closure Plan; Attachment D8 - Final Cover Quality Control Plan.
359. The Site Operating Plan addresses erosion of cover and explains procedures for repairs in the event of cover erosion.
360. The Site Operating Plan contains a ponding prevention plan that identifies techniques to be used at the Facility to prevent the ponding of water over waste, an inspection schedule to identify potential ponding sites, corrective actions to remove ponded water, and general instructions to manage water that has been in contact with waste.

361. 130EP will not recirculate leachate or landfill gas condensate.
362. The Site Operating Plan describes operations for storage areas for large items and white goods within the waste disposal footprint or near the citizens' convenience center.
363. The Site Operating Plan describes operations for a reusable materials staging area.
364. The Site Operating Plan describes operation of a citizens' convenience center at the Facility.
365. The Site Operating Plan describes how containers located in the citizens' convenience center will be managed and provides a description of waste stream processing in the center.
366. The Site Operating Plan describes how the Facility will manage scrap tires and a description of scrap tire processing.
367. The Site Operating Plan describes operations for scrap tires to be accepted from the public or from community clean-up efforts and stored in containers or trailers prior to shipment off-site.
368. The Site Operating Plan describes operations for a wood waste processing area.
369. The Site Operating Plan describes operations for a leachate and landfill gas condensate facility.
370. The Site Operating Plan describes operations for a truck wheel wash station.
371. The provisions set forth in the Site Operating Plan are sufficiently specific and detailed.
372. There are no residences within approximately 185 and 345 feet of the proposed Facility Boundary and landfill footprint, respectively.
373. Noise from heavy equipment operation and other operations at the Facility could be incompatible with nearby residents.
374. The screening and buffer zones at the Facility do not eliminate the potential for noise and odors to impact nearby residents.
375. 130EP did not show that the operating hours set forth in the Draft Permit are appropriate.
376. The following operating hours are appropriate for the Facility: 7:00 a.m. to 7:00 p.m. Monday through Friday, and material transport and heavy equipment operation must not be conducted between 9:00 p.m. and 5:00 a.m.

Odor

- 377. The Site Operating Plan in the Application includes an odor management plan that identifies ponded water, decomposed waste, leachate, contaminated water, and landfill gas as sources of odors at the Facility.
- 378. The odor management plan includes general instructions for the control of odors or sources of odors at the Facility.
- 379. The odor management plan discusses wastes that require special attention due to potential odors.
- 380. The Application contains ventilation and odor control measures for each storage, separation, processing, and disposal unit.

Water Supply

- 381. The Site Operating Plan identifies the source of available water under pressure for fire-fighting purposes at the Facility.
- 382. The Site Operating Plan indicates that potable water will be provided for all employees and visitors through the use of bottled water at/near the scale house and/or maintenance building.

Buffer Zones and Screening

- 383. Buffer zones between the Facility Boundary and the Landfill footprint and between the Facility Boundary and waste storage or processing units will exceed the TCEQ-required minimum of 125 feet.
- 384. No solid waste unloading, storage, disposal, or processing operations will occur within any buffer zone or right-of-way that crosses the Site, including the 125-foot buffer zone of the Landfill.
- 385. The buffer zones will provide for safe passage of fire-fighting and other emergency vehicles.
- 386. Buffer zones will be marked with yellow markers (posts extending at least six feet above the ground surface) placed along each buffer zone boundary at all corners and between corners at intervals of 300 feet.
- 387. The inundation area of the District's easement for the Site 21 Reservoir extends onto the Site in the south and southeast but does not extend to any area to be used for waste unloading, storage, processing, or disposal.
- 388. No solid waste unloading, storage, disposal, or processing operations will occur within any easement, buffer zone, or right-of-way that crosses the Site.

- 389. Existing topography and vegetation will provide natural screening of deposited waste.
- 390. Visual screening of deposited waste will be provided as part of normal waste disposal and cover placement operations and sequence of development.
- 391. Final cover will be placed as the Landfill reaches final contours.
- 392. As the Facility is developed, the visual effects of the disposal activities will be minimized through the use of screening provided by fencing, constructed berms, planted vegetation, and natural vegetation located within the buffer zone.
- 393. Visibility of the Facility will be limited by existing topography, naturally occurring tree lines, and the vegetated landscaping plan for the Facility (including an effective screening berm).
- 394. [Deleted]

Waste Acceptance Plan

- 395. Solid wastes to be accepted at the Facility include municipal solid waste, special wastes, and Class 2 and 3 industrial wastes.
- 396. Limiting parameters for waste to be accepted at the Facility are included in the Application.
- 397. Waste contributed to the Facility is expected to come from residences and businesses in Caldwell County and surrounding Texas counties.
- 398. The Facility will serve an estimated population equivalent of approximately 470,000 persons to 922,000 persons during the life of the Facility.
- 399. The estimated maximum annual waste acceptance rate for the Facility projected for five years is as follows: Year 1 - 429,000 tons; Year 2 - 435,778 tons; Year 3 - 442,663 tons; Year 4 - 449,658 tons; Year 5 - 456,762 tons.
- 400. The plan adequately identifies the sources and characteristics of wastes 130EP proposes to receive at the Facility.
- 401. The estimates of waste acceptance rates at the Facility, which are extremely difficult to make, are reasonable and justified.

Permit Duration

- 402. The projected life of the 130EP Landfill facility is 44 years.
- 403. It is appropriate for the permit for the 130EP Landfill facility to be issued for the life of the Facility.

Closure Plan, Post-Closure Plan, and Financial Assurance

404. The Application includes a closure plan for the Facility in Part III, Attachment H.
405. The closure plan includes drawings showing the final constructed contour of the entire Landfill, including internal drainage and side slopes, accommodation of surface drainage entering and departing the completed fill area, and areas subject to flooding due to a 100-year frequency flood.
406. The estimated largest area requiring final cover during the active life of the Landfill is approximately 75 acres.
407. The estimated maximum inventory of waste and operational cover at the Facility during its life is approximately 33.1 million cubic yards, which is the total volume of the Landfill.
408. The closure plan specifies the procedures for closure of any portion or all of the Landfill.
409. The closure plan includes a description of the steps that will be undertaken to close the Landfill, a schedule for final closure, a description of the final cover system, and the methods used to install the final cover.
410. The final cover system will consist of an infiltration layer, a flexible membrane cover, a drainage layer on side slopes, a cushion layer on top slopes, and an erosion control layer.
411. The infiltration layer will be a minimum of 18 inches of compacted soil with a coefficient of permeability less than or equal to 1×10^{-5} cm/sec.
412. The estimated cost of hiring a third party to close the largest area of the Landfill requiring final closure at any time during its active life is \$10,121,410.
413. The Application includes, in Part III Attachment I, a post-closure plan addressing the ongoing monitoring and maintenance activities that will be conducted at the Site for 30 years following closure.
414. The estimated cost of hiring a third party to conduct post-closure care activities in accordance with the post-closure plan is \$6,794,348.
415. The Application includes a cost estimate for closure of the Facility.
416. The Application includes a cost estimate for post-closure care of the Facility.
417. 130EP will submit a copy of the documentation required to demonstrate financial assurance as specified in 30 TAC ch. 37, subch. R at least 60 days prior to the initial receipt of waste at the Facility.

Assessment of Reporting and Transcription Costs

418. Pursuant to Order No. 1, 130EP arranged for and paid a court reporter to report and transcribe the hearing on the merits and to deliver the original and one copy of the transcript to each of the ALJs and two copies to the TCEQ's Chief Clerk, including electronic copies on disc in text format.
419. The cost of reporting, preparing, and delivering the transcripts delivered to the ALJs and the TCEQ Chief Clerk was \$16,725.85.
420. 130EP, the County, Protestants, the ED, and the Office of Public Interest Counsel (OPIC) all participated in the contested case hearing and benefitted from having a transcript for use in preparing written closing arguments and responses.
421. 130EP, the District, the County, and Protestants were each represented by private attorneys in connection with the contested case hearing.
422. 130EP, Protestants, the County, and the District have the ability to pay costs.
423. 130EP, Protestants, and the County participated fully in the hearing. Mr. Pesl did not participate in the hearing.
424. The District limited its participation to issues related to the Site 21 Reservoir and its easement and did not cite to the transcript in its post-hearing briefing. The District did not take a position on whether the Commission should grant the permit.
425. Protestants incurred additional expenses because 130EP breached its duty and destroyed discoverable materials.
426. In the contested case hearing, 130EP, the District, the County, and Protestants presented direct case testimony and exhibits and cross-examined witnesses presented by other parties to the hearing.
427. 130EP should pay 50% of the transcript costs, \$8,362.93, and the County and Protestants each pay 25% of the costs, \$4,181.47 each.

II. CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the disposal of municipal solid waste and the authority to issue a permit under Texas Health and Safety Code § 361.061.
2. Notice was provided in accordance with Texas Health and Safety Code §§ 361.0665 and 361.081, Texas Government Code §§ 2001.051 and 2001.052, and 30 TAC §§ 39.405 and 39.501.
3. SOAH has jurisdiction to conduct a hearing and to prepare a PFD in contested cases referred by TCEQ under Texas Government Code § 2003.047.

4. 130EP submitted an administratively and technically complete permit application, as required by Texas Health and Safety Code §§ 361.066 and 361.068, which demonstrated that it will comply with all relevant aspects of the requirements provided in 30 TAC §§ 330.57 and 330.63.
5. The Application was processed and the proceedings described in this Order were conducted in accordance with applicable law, specifically Texas Health and Safety Code ch. 361, subch. C; Texas Government Code ch. 2001; 1 TAC ch. 155; and 30 TAC ch. 80.
6. 130EP has the burden of proof on the issues regarding the sufficiency of the Application and compliance with the necessary statutory and regulatory requirements. 30 TAC § 80.17(a).
7. 130EP's Application had the following deficiencies:
 - a. [Deleted]
 - b. 130EP did not obtain approval from the ED of its boring plan for the subsurface investigation of the Site prior to initiating work, as required by 30 TAC § 330.63(4).
 - c. 130EP did not obtain a floodplain development permit from the County, as required by 30 TAC § 330.63(c)(2)(D)(ii).
8. 130EP did not meet its burden to prove that its requested operating hours beyond those specified in 30 TAC § 330.135 are appropriate.
9. Other than the deficiencies in the Application and the failure to prove that expanded operating hours would be appropriate, 130EP met its burden on all other issues.
10. The Facility will not adversely affect the health, welfare, or physical property of the people or the environment if constructed and operated in accordance with Texas Health and Safety Code ch. 361, 30 TAC ch. 330, and the permit issued by this Order.
11. The Draft Permit No. MSW-2383, as prepared by the ED and as amended by this Order, includes all matters required by law.
12. The approval of the Application and issuance of Permit No. MSW-2383 will not violate the policies of the State of Texas, as set forth in Texas Health and Safety Code § 361.002(a), to safeguard the health, welfare, and physical property of the people of Texas, and to protect the environment by controlling the management of solid waste.
13. The Application complied with 30 TAC §§ 281.5 and 330.59.
14. The Application includes sufficient information and demonstrates compliance with the TCEQ's requirements regarding property rights in 30 TAC § 330.67.

15. 130EP provided the information required under the TCEQ's rules to demonstrate evidence of competency under 30 TAC § 330.59(f).
16. 130EP's compliance history ranking was properly classified as "unclassified" under 30 TAC ch. 60.
17. 130EP met the requirements of 30 TAC § 330.61(h).
18. The Facility will be compatible with surrounding land uses.
19. 130EP met the requirements of 30 TAC § 330.61(i) regarding transportation and traffic.
20. The roads used to access the Facility will be available and adequate. 30 TAC § 330.61(i).
21. [Deleted]
22. 130EP is not proposing to locate a new municipal solid waste landfill or lateral expansion within five miles of an airport serving turbojet or piston-type aircraft, as confirmed in correspondence with the Federal Aviation Administration and in compliance with 30 TAC §§ 330.61(i)(5) and 330.545.
23. Other than 130EP's failure to obtain ED approval of its boring plan, the Geology Report in the Application meets the requirements in 30 TAC § 330.63(e).
24. The Application complies with the hydrogeology requirements in 30 TAC § 330.63(e).
25. The Application complies with the groundwater protection requirements in 30 TAC §§ 330.63(f)(4) and 330.403 through 330.407.
26. The groundwater sampling and analysis plan meets the requirements in 30 TAC §§ 330.63(f) and 330.403 through 330.407.
27. 130EP's proposed groundwater monitoring system will adequately monitor the groundwater beneath the Facility and protect human health and the environment in compliance with 30 TAC §§ 330.63(f)(4) and 330.403 through 330.407.
28. The Application complies with the general facility design requirements in 30 TAC § 330.63(b).
29. The Application complies with the waste management unit design requirements in 30 TAC § 330.63(d).
30. The Application complies with the soils and liner quality control plan requirements in 30 TAC §§ 330.63(d)(4)(G) and 330.339.
31. The Application complies with the landfill gas management plan requirements in 30 TAC § 330.63(g) and addresses all the requirements in 30 TAC § 330.371.

32. The Application complies with the endangered and threatened species requirements in 30 TAC §§ 330.61(n), 330.157, and 330.551.
33. The Application complies with the applicable federal, state, and local laws regarding wetlands as required by 30 TAC § 330.61(m).
34. There is no requirement applicable to the Facility under Clean Water Act § 404 or state wetlands laws requiring 130EP to achieve or attempt to achieve no net loss of wetlands.
35. The Application demonstrates that the Facility will comply with the location restrictions in 30 TAC § 330.553.
36. Development of the Facility will not adversely alter existing drainage patterns. 130EP has sufficiently demonstrated its compliance with 30 TAC §§ 330.63(c)(1), 330.303, and 330.305.
37. The Application complies with the stormwater drainage system requirements of 30 TAC §§ 330.63, 330.303, and 330.305.
38. The Application demonstrates how the Facility will comply with the TPDES program under the federal Clean Water Act § 402, as amended, as required by 30 TAC § 330.61(k)(3).
39. Except for 130EP's failure to obtain and include the floodplain development permit from the County in its Application, the Application complies with the floodplain requirements in 30 TAC §§ 330.61(m), 330.63(c)(2), and 330.547.
40. Solid waste management activities at the Facility will conform with the applicable regional solid waste management plan, pursuant to Texas Health and Safety Code § 363.066.
41. The existence of the County's Disposal Ordinance does not prevent TCEQ from granting the Application and issuing the permit pursuant to Texas Health and Safety Code §§ 363.112(d) and 364.012(f).
42. Except for the deviation from the TCEQ's standard operating hours, 130EP has shown that it will comply with the operational prohibitions and requirements in 30 TAC §§ 330.15 and 330.121 through 330.249.
43. The methods specified in the Site Operating Plan comply with the municipal solid waste rules to prevent the creation of any nuisance, as defined by 30 TAC § 330.3(95).
44. 130EP has provided sufficiently detailed information regarding the operational methods to be utilized at the Facility when using daily cover and its preventative effect on vectors, fires, odors, windblown waste and litter, and scavenging, as required by 30 TAC § 330.165(a).

45. The methods specified in the Site Operating Plan for the control of windblown waste and litter comply with 30 TAC §§ 330.127 and 330.139.
46. The waste acceptance hours in 30 TAC § 330.135 are appropriate for the Facility.
47. 130EP's odor management plan contains sufficient details regarding the sources of odors and general procedures for odor control and meets the requirements of 30 TAC § 330.149.
48. The Application includes adequate information regarding 130EP's proposed water supply in compliance with 30 TAC §§ 330.221(a) and 330.249.
49. The Site Operating Plan in Part IV of the Application is designed to make the Facility protective of human health, welfare, property, and the environment. Tex. Health & Safety Code ch. 361.
50. The Application demonstrates that the Facility will comply with the buffer zone and screening requirements in 30 TAC §§ 330.141 and 330.543.
51. Part I of the Application meets the requirements of 30 TAC §§ 281.5, 305.45, 330.57(c)(l), and 330.59.
52. Part II of the Application complies with the applicable rules in 30 TAC §§ 305.45, 330.61, 330.57(c)(2), and 330.543 through 330.563.
53. Except as set out in Conclusion of Law No. 7 regarding the lack of ED approval of the boring plan and the omission of a floodplain development permit, Part III of the Application complies with the applicable rules in 30 TAC §§ 330.63, 330.171, 330.303 through 330.307, 330.331, 330.333, 330.371, 330.401 through 330.421, 330.457 through 330.465, and 330.503 through 330.507.
54. Except for the deviation from the TCEQ's standard operating hours, Part IV of the Application, the Site Operating Plan, meets the requirements of 30 TAC §§ 330.57(c)(4), 330.65, and 330.121 through 330.249.
55. 130EP has demonstrated compliance with the location restrictions set forth in 30 TAC §§ 330.543 through 330.563.
56. 130EP has submitted information regarding closure and post-closure that demonstrates compliance with the requirements of 30 TAC §§ 330.63(h), (i), (j); 330.457 through 330.465; and 330.503 through 330.507.
57. Pursuant to the authority of, and in accordance with, applicable laws and regulations, the requested permit should be issued for the life of the Facility. 30 TAC § 330.71.
58. No transcript costs may be assessed against the ED or OPIC because the TCEQ's rules prohibit the assessment of any cost to a statutory party who is precluded by law from appealing any ruling, decision, or other act of the Commission. 30 TAC § 80.23(d)(2).

59. Factors to be considered in assessing transcript costs include: the party who requested the transcript; the financial ability of the party to pay the costs; the extent to which the party participated in the hearing; the relative benefits to the various parties of having a transcript; the budgetary constraints of a state or federal administrative agency participating in the proceeding; and any other factor which is relevant to a just and reasonable assessment of the costs. 30 TAC § 80.23(d)(1).
60. Considering the factors in 30 TAC § 80.23(d)(1), a reasonable assessment of hearing transcript costs against parties to the contested case proceeding is: 50% of the cost to 130EP, 25% of the cost to Protestants, and 25% of the cost to the County.

III. EXPLANATION OF CHANGES

1. The Commission incorporated some of the corrections to the Proposed Order recommended by the Executive Director and the Applicant in their Exceptions dated March 10, 2017 and March 13, 2017, respectively. By letter dated May 10, 2017, the ALJs agreed that some of the recommended corrections suggested by the ED and the Applicant should be incorporated into the Proposed Order. Therefore, the Commission adopted those corrections agreed to by the ALJs to Finding of Fact Nos. 8, 20, 56, 153, and 227; and Conclusion of Law Nos. 53 and 56.
2. The Commission determined that the ALJs misapplied the Commission's rules in concluding that it was a deficiency in the Application not to include the District's easement on the land ownership map and accompanying landowners list. The Commission concluded that it was not a deficiency because, based on the plain language used in 30 TAC §§ 281.5(6) and 330.59(c)(3), the rules do not require an easement to be included on the land ownership map or landowners list. This decision is consistent with the Applicant's arguments in its exceptions as to this issue. Accordingly, the Commission deleted Conclusion of Law No. 7.a, deleted the phrase "Except for the failure to include information regarding the District's ownership of an easement on the Hunter Tract" from Conclusion of Law No. 13, and deleted the phrase "Except as set out in Conclusion of Law No. 7 regarding 130EP's omission of the District's easement" from Conclusion of Law No. 51. The Commission also amended two citations in Conclusion of Law No. 51 in order to reference the correct rule chapter: (1) changed 30 TAC § 305.57(c)(1) to 30 TAC § 330.57(c)(1); and (2) changed 30 TAC § 305.59 to 30 TAC § 330.59.
3. The Commission also determined that the Permit Boundary should not be expanded to include the entire length of the access road and the screening berms. The Commission concluded that the plain language of the TCEQ rules and the evidence in the record do not require or support the expansion of the Permit Boundary. In regards to access roads, the TCEQ rules specifically contemplate that portions of an access road may be outside of the permit boundary. For example, as argued by the Applicant and the ED in their exceptions to the PFD, 30 TAC § 330.153 requires that "all-weather roads must be provided from the facility to access public roads...." That language envisions that at least a portion of the road may be outside of the permit boundary. In regards to screening berms, the Commission concluded that there are no rules which require a screening berm to be located

within a permit boundary. Texas Water Code § 7.002 gives the Commission the authority to enforce provisions of the Texas Water Code, Texas Health and Safety Code, and any rules adopted under those provisions. Texas Water Code § 7.002 also authorizes the Commission to compel compliance with the rules, orders, permits, and other decisions of the Commission. That statutory authority is not limited to the confines of a permit boundary. *See also, Texas Health and Safety Code § 361.032.* Accordingly, to effectuate the Commission's decision to deny the ALJs' recommendation to expand the Permit Boundary, and consistent with the Applicant's and the ED's Exceptions, the Commission deleted Finding of Fact Nos. 69, 70, and 394; Conclusion of Law No. 21; and Ordering Provision No. 1.a.

4. Consistent with the Applicant's Exceptions, the Commission removed the phrase "is a zoning ordinance that" from Finding of Fact No. 318 and reworded Finding of Fact No. 372 to more accurately state the distance of the nearest resident, as evidenced in the record.
5. The Commission corrected the following typographical errors in the order: In Finding of Fact No. 23, the Commission deleted the "m" included in the suffix of Mr. Snyder's name. Finding of Fact No. 92 was amended to add the word "Report" between the words "Geology" and "shows." The citation to 30 TAC § 305.61 in Conclusion of Law No. 52 was deleted because it is not applicable to the issuance of this landfill permit.

Additionally, the caption and first paragraph of the order was amended in order to spell out the name of the Applicant as represented in the Application, resulting in a change from "130EP, L.L.C." to "130 Environmental Park, LLC." The Office of General Counsel makes this change to the ALJs' Proposed Order consistent with the Commission's Resolution in Docket No. 2009-0059-RES dated February 2, 2009, which gives the General Counsel "authority to make clerical and clarification changes to Orders and documents adopted by the Commission, to effectuate the clear intent of the Commission's action taken."

6. The Commission must either adopt or modify the Executive Director's Response to Comments upon permit issuance pursuant to 30 TAC §§ 50.117 and 80.126. In this matter, the Commission determined that it was appropriate to adopt the Executive Director's Response to Comments and thus, has added new Ordering Provision No. 4 reflecting that adoption. The remaining Ordering Provisions were renumbered.


NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY THAT:

1. 130EP's Application is granted and the Municipal Solid Waste Landfill Type I permit is hereby issued to 130EP, as set out in the attached Draft Permit with the following modifications:
 - a. [Deleted]
 - b. Waste acceptance hours may be any time between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and transportation of materials and heavy

equipment operation must not be conducted between the hours of 9:00 p.m. to 5:00 a.m., unless otherwise approved. Operating hours for other activities do not require specific approval.

2. The County and Protestants must each pay \$4,181.47 of the transcription costs.
3. 130EP must pay \$8,362.93 of the transcription costs.
4. The Executive Director's Response to Comments is hereby adopted pursuant to 30 TAC §§ 50.117 and 80.126.
5. The effective date of this Order is the date the Order is final.
6. All other motions, requests for entry of specific findings of fact or conclusions of law, and any other requests for general or specific relief not expressly granted herein, are hereby denied for want of merit.
7. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any portion shall not affect the validity of the remaining portions of the Order.
8. The Chief Clerk of the Texas Commission on Environmental Quality shall forward a copy of this Order to the parties.

**TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY**


Bryan W. Shaw, Ph.D., P.E., Chairman
For the Commission

9-18-17
Date Signed

Texas Commission on Environmental Quality



Permit For
Municipal Solid Waste (MSW) Management Facility
Issued under provisions of Texas
Health and Safety Code
Chapter 361

MSW Permit No.: 2383
Name of Site Operator/Permittee: 130 Environmental Park, LLC
Property Owner: Cathy Moore Hunter
Facility Name: 130 Environmental Park
Facility Location: North of FM 1185 between U.S. Highway 183 and
Homannville Trail, about two miles north of Lockhart,
Caldwell County, Texas
Classification of Site: Type I Municipal Solid Waste Landfill Facility

The permittee is authorized to store, process, and dispose of wastes in accordance with the limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules and orders of the Commission and laws of the State of Texas. Nothing in this permit exempts the permittee from compliance with other applicable rules and regulations of the Texas Commission on Environmental Quality. This permit will be valid until canceled, amended, or revoked by the Commission.

Approved, Issued and Effective in accordance with Title 30 Texas Administrative Code, Chapter 330.

Issued Date:

For the Commission

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I. Size and Location of Facility

- A. The 130 Environmental Park landfill facility is located north of FM 1185 between U.S. Highway 183 and Homannville Trail, about two miles north of Lockhart, Caldwell County, Texas. The facility contains approximately 520 acres.
- B. The legal description is contained in Part I of the application, which is incorporated by reference in Attachment A of this permit.
- C. Coordinates and Elevation of Site Permanent Benchmark:
- | | |
|------------|---|
| Latitude: | N 29° 58' 43.75" |
| Longitude: | W 97° 39' 24.76" |
| Elevation: | 592.37 feet above mean sea level (ft msl) |

II. Facilities and Operations Authorized

- A. Days and Hours of Operation
- The waste acceptance hours for the receipt and disposal of waste at this facility shall be 7:00 a.m. to 7:00 p.m. Monday through Friday. The operating hours at this landfill which include the use of heavy equipment shall be 5:00 a.m. to 9:00 p.m. Monday through Friday.
- The operator shall post the actual waste acceptance and operating hours on the site sign.
- B. Wastes Authorized at This Facility
- The permittee is authorized to dispose of municipal solid waste resulting from, or incidental to, municipal, community, commercial, institutional, recreational and industrial activities, including garbage, putrescible wastes, rubbish, ashes, brush, street cleanings, construction and demolition waste, and yard waste; Class 2 non-hazardous industrial solid waste; Class 3 non-hazardous industrial solid waste; and certain special waste as described in Part II, Section 2.1 of the permit application. The facility will not accept Class 1 industrial solid waste except waste that is Class 1 only because of asbestos content.
- C. Wastes Prohibited at This Facility
- The permittee shall comply with the waste disposal restrictions set forth in 30 TAC §330.15(e). The permittee shall not accept medical waste, sewage, dead animals, slaughterhouse waste, sludge, grease trap waste, grit trap waste, liquid waste from municipal sources, municipal hazardous waste from conditionally exempt small quantity generators, out-of-state waste, and any other waste which is prohibited or not identified in Section II.B above.
- D. Waste Acceptance Rate
- Authorized wastes will be accepted at an anticipated/initial rate of approximately 1,500 tons per day and may increase to a maximum of 2,943 tons per day. These estimated acceptance rates are not a limiting parameter to the permit.
- E. Waste Volume Available for Disposal
- The total waste disposal capacity of the landfill (including waste and daily cover) is 33.1 million cubic yards.

F. Facilities Authorized

The permittee is authorized to operate a Type I municipal solid waste landfill consisting of a total permit boundary of approximately 520 acres and a waste disposal footprint of approximately 202 acres. The permittee is also authorized to operate a citizen convenience center, leachate storage unit, large items storage area, used/scrap tire storage area, wood waste processing area, and truck wheel wash station.

All waste disposal activities authorized by this permit are to be confined to the Type I landfill which shall include security fencing, a gatehouse, scales, a paved entrance road to the site, all-weather access roads, soil stockpiles, landfill gas monitoring and collection system, leachate collection system, groundwater monitoring system, liner system, solid waste disposal area, and other improvements. Structures for surface drainage and storm water run-on/runoff control include a perimeter drainage system to convey storm water runoff around the site, berms, ditches, detention ponds and associated drainage structures.

All waste processing activities identified above and authorized by this permit are to be confined to the locations depicted in Drawing IIA.8 in Part II of the permit application and described in Part III, Attachment D, Chapter 2 of the permit application.

G. Changes, Additions, or Expansions

Any proposed facility changes must be authorized in accordance with the rules in 30 TAC Chapters 305 and 330.

III. Facility Design, Construction, and Operation

- A.** Facility design, construction, and operation and maintenance must comply with the provisions of this permit; Commission Rules, including but not limited to 30 TAC Chapter 330; special provisions contained in this permit; and Parts I through IV of the permit application incorporated by reference in Attachment A of this permit; amendments, corrections, and modifications incorporated by reference in Attachment B. The facility construction and operation shall be managed in a manner that protects human health and the environment.
- B.** The entire waste management facility shall be designed, constructed, operated, and maintained to prevent the release and migration of any waste, contaminant, or pollutant beyond the point of compliance as defined in 30 TAC §330.3 and to prevent inundation or discharge from the areas surrounding the facility components. Each receiving, storage, processing, and disposal area shall have a containment system that will collect spills and incidental precipitation in such a manner as to:
1. Preclude the release of any contaminated runoff, spills, or precipitation;
 2. Prevent washout of any waste by a 100-year frequency flood; and
 3. Prevent run-on into the disposal areas from off-site areas.
- C.** The site shall be designed and operated so as not to cause a violation of:
1. The requirements of §26.121 of the Texas Water Code;
 2. Any requirements of the Federal Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements of §402, as amended, and/or the Texas Pollutant Discharge Elimination System (TPDES), as amended;

3. The requirements under §404 of the Federal Clean Water Act, as amended; and
 4. Any requirement of an area wide or statewide water quality management plan that has been approved under §208 or §319 of the Federal Clean Water Act, as amended.
- D. Management of Contaminated Water, Leachate, and Gas Condensate
1. All contaminated water, leachate, and gas condensate shall be handled, stored, treated, disposed of, and managed in accordance with requirements in 30 TAC §§ 330.207, 330.305(g), 330.333, as applicable, and the permit application incorporated by reference in Attachment A of this permit.
 2. Contaminated surface water and groundwater shall not be placed in or on the landfill.
- E. Liner System
1. A liner system meeting the requirements of 30 TAC Chapter 330 Subchapter H will be constructed. The system will consist of (from top to bottom): 24 inches of protective cover soil, a 300-mil-thick geocomposite leachate drainage layer, a 60-mil-thick high-density polyethylene (HDPE) geomembrane, and 24 inches of re-compacted clay with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second.
 2. The elevation of deepest excavation at the landfill disposal area is 501.9 feet above msl, and is located at the leachate collection sump.
 3. The elevations of the bottom of the excavations within the waste disposal areas shall be as shown in Part III, Attachment D1, Drawing D1.6 in the permit application.
- F. Final Cover System
1. The final cover system is designed to meet the requirements of 30 TAC Chapter 330 Subchapter K and will be placed on the above-grade waste. Each cell or phase will be covered with a system consisting of (from top to bottom): 24 inches of soil with the top six inches capable of sustaining native plant growth, a 200-mil-thick double-sided geocomposite drainage layer on sideslopes, a six ounces per square yard nonwoven geotextile cushion layer on topslopes, a 40-mil-thick linear low-density polyethylene (LLDPE) geomembrane, and 18 inches of re-compacted clay with a hydraulic conductivity of no more than 1×10^{-5} centimeters per second.
 2. The maximum elevation of the final cover shall not exceed 736 ft msl.
 3. Best management practices for temporary erosion and sedimentation control shall remain in place until sufficient vegetative cover has been established to control and mitigate erosion on areas having final cover. Vegetative cover will be monitored and maintained throughout the post-closure care period in accordance with the Post Closure Care Plan.
- G. Waste Placement
1. The lowest elevation of waste placement will be approximately 505.9 ft msl.
 2. The maximum final elevation of waste placement will be 731.5 feet above msl.

H. Landfill Gas Management System

1. A landfill gas management system to monitor and control methane gas pursuant to 30 TAC Chapter 330, Subchapter I shall be installed and operated at the landfill. The landfill gas monitoring system shall consist of a perimeter network of landfill gas monitoring probes and landfill gas monitoring equipment for facility structures. The landfill gas monitoring probes and landfill gas control system shall be located, installed, and operated as described in the Landfill Gas Management Plan in the application and consistent with applicable rules. At a minimum, landfill gas monitoring shall be conducted on a quarterly basis.
2. The landfill gas management system shall ensure that the concentration of methane gas generated by the facility does not exceed 5% by volume in monitoring points, probes, subsurface soils, or other matrices at the facility boundary defined by the legal description in the permit or permit by rule, and does not exceed 1.25% by volume in facility structures (excluding gas control or recovery system components). If methane gas levels exceeding the limits specified herein are detected, the owner or operator shall follow and implement the notification and mitigation provision described under 30 TAC §330.371(c) to ensure continuous protection of human health and the environment.

I. Groundwater Monitoring System

1. The groundwater monitoring system shall be installed and shall consist of a sufficient numbers of monitoring wells to monitor the quality of groundwater in the uppermost aquifer in accordance with 30 TAC §330.403. The system shall be designed, constructed, and operated in accordance with the groundwater monitoring system design and the Groundwater Sampling and Analysis Plan in the application and consistent with the applicable rules.
2. Monitoring wells shall be sampled in accordance with 30 TAC §330.407. The frequency of groundwater sampling and reporting of data collected for each sampling event shall be in accordance with 30 TAC §330.405 and the Groundwater Sampling and Analysis Plan in the application.

J. Landfill Markers

Landfill markers shall be installed and maintained in accordance with 30 TAC §330.143 and as described within the Site Operating Plan in the application.

K. Storm water runoff from the active portion(s) of the landfill shall be managed in accordance with 30 TAC §§330.63(c), and 30 TAC Chapter 330, Subchapter G and as described in the Facility Surface Water Drainage Report, Drainage Analysis and Design, Flood Control Analysis, and Drainage System Plans and Details in the application.

L. The permittee shall comply with 30 TAC §330.59(f) (3) regarding employment of a licensed solid waste facility supervisor. The permittee shall ensure that landfill personnel are familiar with safety procedures, contingency plans, the requirements of Commission rules and this permit, commensurate with their levels and positions of responsibility as described in the Site Operating Plan in the permit application. All facility employees and other persons involved in facility operations shall obtain the appropriate level of training or certification as required by applicable regulations.

- M. The facility shall be properly supervised to assure that the attraction of birds does not cause a significant hazard to low-flying aircraft and that appropriate control procedures will be followed. Any increase in bird activity that might be hazardous to safe aircraft operations will require prompt mitigation actions.

IV. Financial Assurance

- A. Authorization to operate the facility is contingent upon compliance with provisions contained within this permit and maintenance of financial assurance in accordance with 30 TAC Chapter 330 Subchapter L and 30 TAC Chapter 37.
- B. Within 60 days prior to the initial receipt of waste, the permittee shall provide financial assurance instrument(s) for demonstration of closure in an amount not less than \$10,121,410 (2014 dollars).
- C. Within 60 days prior to the initial receipt of waste, the permittee shall provide a financial assurance instrument for demonstration of post-closure care of the landfill in an amount not less than \$6,715,148 (2014 dollars).
- D. The permittee shall annually adjust the closure and/or post-closure care cost estimates for inflation within 60 days prior to the anniversary date of the establishment of the financial assurance instrument pursuant to 30 TAC §§330.503 and 330.507, as applicable.
- E. If the facility's closure or post-closure care plan is modified the permittee shall provide new cost estimates in current dollars in accordance with 30 TAC §§330.503, 330.463(b)(3)(D), and 330.507, as applicable. The amount of the financial assurance mechanism shall be adjusted within 45 days after the modification is approved. Adjustments to the cost estimates and financial assurance instrument(s) to comply with any financial assurance regulation that is adopted by the TCEQ subsequent to the issuance of this permit shall be initiated as a modification within 30 days after the effective date of the new regulation.

V. Facility Closure

Closure of the facility shall commence:

- A. Upon the landfill being filled to its permitted waste disposal capacity or upon the landfill reaching its permitted maximum waste elevation;
- B. Upon direction by the Executive Director of the TCEQ for failure to comply with the terms and conditions of this permit or violation of State or Federal regulations. The Executive Director is authorized to issue emergency orders to the permittee in accordance with §§5.501 and 5.512 of the Water Code regarding this matter after considering whether an emergency requiring immediate action to protect the public health and safety exists;
- C. Upon abandonment of the site by the permittee;
- D. Upon direction by the Executive Director of the TCEQ for failure to secure and maintain an adequate bond or other acceptable financial assurance instrument as required; or
- E. Upon the permittee's notification to the TCEQ that the landfill will cease to accept waste and no longer operate.

VI. Facility Post-Closure Care

- A. Upon completion and closure of the landfill, post-closure care shall be conducted in accordance with 30 TAC §330.463 and as described in the Postclosure Plan in the application following written acceptance of the certification of final closure by the Executive Director of the TCEQ.
- B. The vegetation on the final cover must be monitored and maintained throughout the post-closure care period.
- C. Following completion of the post-closure care period, the owner or operator shall submit to the Executive Director for review and approval a documented certification prepared by an independent professional engineer licensed in the State of Texas in accordance with 30 TAC §330.465.
- D. Upon written acceptance of the certification of completion of post closure care by the Executive Director of the TCEQ, the permittee shall submit to the Executive Director a request for voluntary revocation of this permit.

VII. Standard Permit Conditions

- A. This permit is based on and the permittee shall follow the permit application submittals dated September 4, 2013 and revisions dated September 17, 2013; February 14, 2014; June 27, 2014; August 22, 2014; and September 24, 2014. These application submittals are hereby approved subject to the terms of this permit, the rules and regulations, and any orders of the TCEQ. These application materials are incorporated into this permit by reference in Attachment A as if fully set out herein. Any and all revisions to these elements shall become conditions of this permit upon the date of approval by the Commission. The permittee shall maintain the application and all supporting documentation at the facility and make them available for inspection by TCEQ personnel. The contents of Part III of Attachment A of this permit shall be known as the "Approved Site Development Plan" in accordance with 30 TAC §330.63. The contents of Part IV of Attachment A of this permit shall be known as the "Approved Site Operating Plan" in accordance with 30 TAC §330.65 and 30 TAC Chapter 330, Subchapters D and E.
- B. Attachment B, consisting of amendments, modifications, and corrections to this permit, is hereby made a part of this permit.
- C. The permittee shall comply with all conditions of this permit. Failure to comply with any permit condition may constitute a violation of the permit, the rules of the Commission, and the Texas Solid Waste Disposal Act, and is grounds for an enforcement action, revocation, or suspension.
- D. A pre-construction conference shall be held pursuant to 30 TAC §330.73(c) prior to beginning physical construction of the facility to ensure that all aspects of this permit, construction activities, and inspections are met. Additional pre-construction conferences may be held prior to the opening of the facility.
- E. A pre-opening inspection shall be held pursuant to 30 TAC §330.73(e). The facility shall not accept solid waste until the executive director has confirmed in writing that all applicable submissions required by the permit and applicable rules have been received and found to be acceptable and that construction is in compliance with the permit and the approved site development plan.
- F. The permittee shall monitor sediment accumulation in ditches and culverts on a quarterly basis, and remove sedimentation to re-establish the design flow grades on an annual basis or more frequently if necessary to maintain design flow.

The roads within the facility shall be designed so as to minimize the tracking of mud onto the public access road.

- G. In accordance with 30 TAC §330.19(a), the permittee shall record in the deed records of Caldwell County, a metes and bounds description of all portions within the permit boundary on which disposal of solid waste has and/or will take place. A certified copy of the recorded document(s) shall be provided to the Executive Director in accordance with 30 TAC §330.19(b).
- H. Daily cover of the waste fill areas shall be performed with well-compacted clean earthen material that has not been in contact with garbage, rubbish, or other solid waste, or with an alternate daily cover which has been approved in accordance with 30 TAC §§330.165(d) and 305.70(k). Intermediate cover, run-on, and run-off controls shall not be constructed from soil that has been scraped up from prior daily cover or which contains waste.
- I. During construction and operation of the facility, measures shall be taken to control runoff, erosion, and sedimentation from disturbed areas. Erosion and sedimentation control measures shall be inspected and maintained at least monthly and after each storm event that meets or exceeds the design storm event. Erosion and sedimentation controls shall remain functional until disturbed areas are stabilized with established permanent revegetation. The permittee shall maintain the on-site access road and speed bumps/mud control devices in such a manner as to minimize the buildup of mud on the access road and to maintain a safe road surface.
- J. Erosion stability measures shall be maintained on top dome surfaces and external embankment side slopes during all phases of landfill operation, closure, and post-closure care in accordance with 30 TAC §330.305(d).
- K. In compliance with the requirements of 30 TAC §330.145, the permittee shall consult with the local District Office of the Texas Department of Transportation or other authority responsible for road maintenance, as applicable, to determine standards and frequencies for litter and mud cleanup on state, county, or city maintained roads serving the site. Documentation of this consultation shall be submitted within 30 days after the permit has been issued.
- L. The permittee shall retain the right of entry onto the site until the end of the post-closure care period as required by 30 TAC §330.67(b).
- M. Inspection and entry onto the site by authorized personnel shall be allowed during the site operating life and until the end of the post-closure care period as required by §361.032 of the Texas Health and Safety Code.
- N. The provisions of this permit are severable. If any permit provision or the application of any permit provision to any circumstance is held invalid, the remainder of this permit shall not be affected.
- O. Regardless of the specific design contained in the application or adopted by reference in Attachments A and B of this permit, the permittee shall be required to meet all performance standards required by the permit, the Texas Administrative Code, and local, state, and federal laws or ordinances.
- P. The permittee shall comply with the requirements of the air permit exemption in 30 TAC §106.534, if applicable, and the applicable requirements of 30 TAC Chapters 106 and 116 and 30 TAC Chapter 330, Subchapter U.

- Q. All discharge of storm water will be in accordance with the U.S. Environmental Protection Agency NPDES requirements and/or the State of Texas TPDES requirements, as applicable.

VIII. Incorporated Regulatory Requirements

- A. The permittee shall comply with all applicable federal, state, and local regulations and shall obtain any and all other required permits prior to the beginning of any on-site improvements or construction approved by this permit.
- B. To the extent applicable, the requirements of 30 TAC Chapters 37, 281, 305, and 330 are adopted by reference and are hereby made provisions and conditions of this permit.

IX. Special Provisions

- A. Before physical construction may commence, the permittee must provide the executive director with a floodplain development permit from the city, county, or other agency with jurisdiction over improvements authorized by this permit.
- B. The facility must implement all roadway improvements specified in Part II, Appendix IIC of the permit application prior to the pre-opening inspection of the facility.

Attachment A

Parts I through IV of the permit application.

Attachment B

Amendments, corrections, and modifications issued for MSW Permit No. 2383.