

**Technical Summary and  
Executive Director's Preliminary Decision  
of the**

**Mesquite Creek Landfill  
MSW Permit Amendment Application  
No. 66C**

**Type I Municipal Solid Waste Facility  
Guadalupe County and Comal County, Texas**

**Applicant:  
Waste Management of Texas, Inc.**

**Date Prepared: June 12, 2024**

By the  
Municipal Solid Waste (MSW) Permits Section  
Office of Waste, Waste Permits Division  
Texas Commission on Environmental Quality

This summary was prepared in accordance with 30 Texas Administrative Code Section 281.21(c). The information contained in this summary is based upon the permit application and has not been independently verified.

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## 1. Applicant Contact Information

Name of Applicant: Waste Management of Texas, Inc  
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New Braunfels, Texas 78130

Name of Facility: Mesquite Creek Landfill

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1700 Kohlenberg Rd  
New Braunfels, Texas 78130  
(830) 625-7894

Consulting Engineer: Scott M. Graves, P.E.  
Geosyntec Consultants, Inc.  
8627 N Mopac Expy, Ste 300  
Austin, Texas 78759  
(512) 354-3279

## 2. General Information

### 2.1 Permit Application

The applicant has submitted this application requesting authorization to laterally expand a Type I municipal solid waste (MSW) landfill in Guadalupe County and Comal County, Texas. The total permitted facility will include 435.49 acres of which approximately 291.6 acres will be used for waste disposal. The maximum final elevation of the final cover will be 798.4 feet above mean sea level (msl).

### 2.2 Wastes to be Accepted

Solid waste to be disposed of will consist of municipal solid waste resulting from, or incidental to municipal, community, commercial, institutional, and recreational activities, including garbage, putrescible wastes, rubbish, ashes, brush, street cleanings, dead animals, abandoned automobiles, construction-demolition waste, yard waste, treatment plant sludge, grease and grit trap waste, and processed scrap tires; Class 2 non-hazardous industrial solid waste; Class 3 non-hazardous industrial solid waste; liquid wastes (that will be solidified prior to disposal in the on-site solidification area); waste that is Class 1 only because of asbestos content; specific special wastes subject to complying with the evaluation and acceptance determination process that include contaminated soils, nonhazardous containerized liquids, nonhazardous filter media, treated medical waste, empty containers that stored hazardous materials, regulated and non-regulated asbestos-containing material, incinerator ash, waste generated outside the boundaries of the state, and wastes that contain naturally occurring radioactive material. The facility may also accept other special waste, as defined

in 30 TAC §330.3 (relating to Definitions), that is not specifically identified in subsection (c) or (d) of 30 TAC §330.171, or in §330.173 of this title (relating to Disposal of Industrial Wastes), only after receiving prior written approval from the executive director.

The landfill unit(s) may not accept wastes that are expressly prohibited by Title 30 Texas Administrative Code (30 TAC) Chapter 330, and any waste that is not authorized for acceptance.

### 2.3 Waste Acceptance Rate and Landfill Life

Authorized wastes may be accepted at an estimated initial rate of approximately 755,000 tons per year and may increase to an estimated maximum of 1,218,000 tons per year. The estimated landfill life is approximately 25.1 years.

## 3. Technical Review

The application has been technically reviewed by the MSW Permits Section to determine its compliance with the applicable requirements in 30 TAC Chapters 305 and 330. Chapter 305 sets forth standards and requirements for applications; Chapter 330 contains the minimum regulatory criteria for MSW facilities. A site assessment pursuant to 30 TAC 330.73(c) was conducted on May 29, 2024. The results of the assessment are documented in Attachment 1 to this Technical Summary.

The information in the permit application demonstrates compliance with the Chapters 305 and 330 regulatory requirements. The application was declared technically complete and a draft permit has been prepared.

## 4. Location and Size

### 4.1 Location

The Mesquite Creek Landfill is located in Guadalupe County and Comal County, Texas on the south side of Kohlenberg Road between Farm-to-Market Road (FM) 1101 to the west and Schwarzlose Road to the east. The main site entrance/exit point is an existing set of side-by-side driveways (one for entrance, and one for exit) on the south side of Kohlenberg Road approximately 0.8 miles east of FM 1101.

### 4.2 Elevation and Coordinates of Permanent Benchmark

Latitude: 29° 44' 02.29" N

Longitude: 98° 01' 00.38" W

Elevation: 667.51 feet above mean sea level (msl)

#### 4.3 Size

The total area within the permit boundary under the proposed permit is approximately 435.49 acres.

### 5. Facility Design, Construction, and Operation

#### 5.1 Facilities Authorized

The permit will authorize the operation of a Type I MSW landfill with a total net disposal volume (waste and daily/intermediate cover) of approximately 41,830,555 cubic yards in addition to support structures and facilities as described in the permit application and subject to the limitations contained in the permit and commission rules.

The facility consists of a site entrance with security fencing, a gatehouse, scales, a paved entrance road to the site, all-weather access roads, soil stockpiles, the solid waste disposal units with liner and leachate collection systems, landfill gas monitoring system, groundwater monitoring system, a landfill gas collection system, a liquid waste solidification area, and leachate evaporation ponds. Structures for surface drainage and stormwater run-on and runoff control include a perimeter drainage system to convey stormwater runoff around the site, berms, ditches, detention ponds and associated drainage structures.

#### 5.2 Waste Placement

The maximum elevation of waste placement will be approximately 791.2 feet above msl. The minimum elevation of waste placement will be approximately 562 feet above msl. The deepest excavation elevation for the liner and sumps is approximately 560 feet above msl.

#### 5.3 Liner

A liner system meeting the requirements of 30 TAC Chapter 330 Subchapter H will be constructed. It will consist of the following components (listed in order from top to bottom of liner system):

- Double-sided geocomposite drainage layer (geonet with nonwoven geotextiles bonded on both the top and bottom)
- 60 mil HDPE geomembrane
- 24 inches re-compacted clay (permeability  $\leq 1 \times 10^{-7}$  cm/s)

The liner system will be overlaid by two feet of protective cover.

#### 5.4 Final Cover System

The final cover system is designed to meet the requirements of 30 TAC Chapter 330 Subchapter K and will be placed over the waste. Each disposal unit will be covered with a composite final cover consisting of one of the following:

1. A composite final cover consisting of the following components (listed in order from top to bottom):
  - 24 inches of erosion layer with the top six-inch layer capable of sustaining native plant growth
  - Geocomposite drainage layer (double-sided on side slopes, using geonet with nonwoven geotextiles bonded on both the top and bottom; single-sided on the 5% top-deck areas using geonet with a nonwoven geotextile bonded on the top side)
  - 40 mil LLDPE geomembrane
  - 18-inch clayey soil infiltration layer (permeability  $\leq 1 \times 10^{-5}$  cm/s)
2. A water balance final cover system consisting of the following components (listed in order from top to bottom):
  - Six-inch or 12-inch erosion layer of earthen material, with the top six inches capable of sustaining native plant growth, and
  - 2-ft 11-inch compacted soil storage layer composed of clayey earthen material (permeability  $\leq 5 \times 10^{-8}$  cm/s).

#### 5.5 Leachate Collection System

The leachate collection system consists of a leachate collection layer (geocomposite drainage layer), leachate collection trenches, pipes, sumps, risers, and pumps. Leachate recirculation is proposed for this facility. Typical recirculation methods include, but are not limited to, spray application on the active working face, vertical recharge wells into the waste, horizontal infiltration trenches into the waste, or drip irrigation into the waste. Recirculation must not exceed the moisture holding capacity of the landfill, and must not cause seeps or ponding, or nuisance conditions. The leachate collection system is designed to meet the requirements of 30 TAC §330.333 and will be placed on top of the liner system.

### 6. Land Use

The application provides information about land use in the vicinity of the site in accordance with 30 TAC §330.61(h).

#### 6.1 Zoning

The proposed facility will be located outside of the territorial limits but within the extraterritorial limits of the City of New Braunfels and is therefore not subject to any known city zoning ordinances.

#### 6.2 Surrounding Land Uses

The surrounding land is used for primarily open/agricultural land, residential low density, and commercial and mixed use.

#### 6.3 Residences and Businesses

There are 94 residences, and five businesses are located within one mile of the permit boundary. The nearest residence is about 0.1 mile west of the site.

#### 6.4 Schools, Churches, and Historical Sites

There are no known schools and churches within one mile of the permit boundary. There are no known historical sites located within one mile of the permit boundary.

#### 6.5 Growth Trends

Comal County and Guadalupe County grew in population by 48.9% and 31.3%, respectively, from 2010 to 2020. The census blocks within five miles of the facility grew by about 64.4% during that timeframe. The San-Antonio-New-Braunfels Metropolitan Statistical Area grew by about 19.4% during that timeframe.

### 7. Location Restrictions

Location restrictions for municipal solid waste landfills are set forth in 30 TAC Chapter 330, Subchapter M.

#### 7.1 Airport Safety

The application indicates that there is one public-use fixed wing airport (New Braunfels National) 1.43 miles and one private owned fixed wing airport (Moltz) 16,189 feet northwest of the landfill site. There is correspondence with FAA that show that there is a determination of no hazard to air navigation, provided they comply with guidelines provided by the FAA. This correspondence is included in the application. The facility is considered to be in compliance with 30 TAC §330.545.

## 7.2 Floodplains

The permit boundary is not located within a 100-year floodplain. The facility is considered to be in compliance with 30 TAC §330.547.

## 7.3 Wetlands

There are no jurisdictional wetland areas within the permit boundary. The facility is considered to be in compliance with 30 TAC §330.553.

## 7.4 Fault Areas and Seismic Impact Zones

The site is on or just outside of the eastern edge of the Balcones Fault Zone. The fault zone is inactive. The facility is not located within a seismic impact zone as defined in 30 TAC §330.557. The facility is considered to be in compliance with 30 TAC §330.555 and §330.557.

## 7.5 Unstable Areas

There are no known unstable areas, as defined in 30 TAC §330.559, within or adjacent to the facility. The facility is considered to be in compliance with 30 TAC §330.559.

## 7.6 Protection of Endangered Species

Correspondence with the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department indicates that no impacts to threatened or endangered of plant or animal species are expected from the proposed operation of this facility.

# 8. Transportation and Access

The main public roadway providing access to the site is Kohlenberg Road located on the east side of the site. Kohlenberg Road is a two-lane asphalt-surfaced roadway with a posted speed limit of 35 miles per hour. The main access road to Kohlenberg Road and the site is FM 1101, which is a two-lane asphalt surfaced concrete based roadway. Based on information obtained from the Texas Department of Transportation the 2023 daily traffic volume for FM1101 in the vicinity of the proposed site is 4,054 vehicles per day traveling in both directions. The landfill facility is expected to contribute approximately 753 vehicles per day. This information is contained in the application and indicates that this road can sufficiently handle the current and anticipated future traffic volumes associated with this facility.

# 9. Surface Water Protection

Water that has come into contact with waste, leachate, or gas condensate is contaminated water, as defined in 30 TAC §330.3. Stormwater that comes into contact

with solid waste will be considered contaminated water. Temporary berms will be constructed to minimize the amount of surface water that comes into contact with the waste. Contaminated stormwater at the working face will be contained by berms. Contaminated surface water and groundwater will not be placed in or on the landfill. Contaminated water will be transported to an authorized facility for treatment and disposal.

## **10. Groundwater Protection**

### **10.1 Groundwater Protection:**

The liner system and leachate collection system will provide protection of groundwater from contamination.

### **10.2 Monitoring Wells:**

The groundwater monitoring system which will provide for detection of potential releases from the facility will consist of 38 monitoring wells of which two are considered upgradient and 36 are compliance wells. Monitoring well spacing at the facility is variable and in compliance with 330.417(b)(2). The groundwater monitoring network will be sampled, analyzed, and monitored in accordance with the procedures in the Groundwater Sampling and Analysis Plan (Attachment 5C of the Permit Amendment Application), which is part of the facility permit.

## **11. Landfill Gas Management**

A landfill gas monitoring system consisting of 21 existing probes and nine new probes for a total of 30 permanent landfill gas monitoring probes around the perimeter of the facility will be monitored quarterly to detect potential gas migration at the facility boundary.

Enclosed facility structures will be monitored quarterly for methane.

## **12. Site Development Plan and Site Operating Plan**

The Site Development Plan (SDP) is Part III of the permit application and sets forth the engineering design and other technical aspects of the facility. The Site Operating Plan (SOP) is Part IV of the permit application. The SOP provides operating procedures for the site management and the site operating personnel for the daily operation of the facility to maintain the facility in compliance with the engineering design and applicable regulatory requirements. These documents become part of the permit.

### 13. Financial Assurance

Authorization to operate this facility is contingent upon the maintenance of financial assurance in accordance with 30 TAC Chapter 330, Subchapter L and Chapter 37 (Financial Assurance) for closure and post-closure care.

### 14. Public Participation Process.

Technical review of the application has been completed, the application has been declared technically complete, and a draft permit and *Notice of Application and Preliminary Decision* (NAPD) have been prepared. Information about the application, the draft permit, the notice, and this technical summary will be filed in the TCEQ Office of the Chief Clerk for processing.

The public can participate in the final decision on the issuance of a permit as follows:

- 14.1 The TCEQ will hold a public meeting if the executive director determines that there is substantial public interest in the application or if requested by a local legislator. During a public meeting the commission accepts formal comments on an application and holds an informal question and answer period.
- 14.2 The NAPD will be sent to the applicant and published in a newspaper. The NAPD provides instructions for submitting comments, requesting a public meeting, or requesting a hearing on the application, and that all comments or requests must be submitted within 30 days from the date of newspaper publication of the notice.
- 14.3 After the comment period has ended, if comments are received a *Response to Comments* (RTC) will be prepared. The RTC will be sent to all persons who submitted comments or requested a public meeting or hearing on the application. Persons who receive the RTC will have an additional 30 days after the date the RTC is mailed in which to request a public hearing.
- 14.4 After the 30-day period to request a hearing has ended, if any requests have been received the matter will be placed on an agenda for a meeting of the TCEQ commissioners to determine whether to grant any of the hearing requests and refer the matter to the State Office of Administrative Hearings for a public hearing.
- 14.5 A public hearing is a formal process in front of an Administrative Law Judge (ALJ) who conducts the hearing. The applicant and protestant party(ies) present witnesses and testimony to support or dispute information contained in the application. When the hearing process is complete, the ALJ will issue a *Proposal for Decision* (PFD). The PFD will be placed on an agenda for a meeting of the TCEQ commissioners to consider whether to grant or deny the application.

- 14.6 After the commission has acted on an application, a motion for rehearing may be made by a party that does not agree with the decision. A motion for rehearing must be filed no later than 25 days after the party or the party's attorney of record is notified of the decision. The motion may be set on another agenda for consideration by the commission or allowed to expire by operation of law.
- 14.7 Applications for which no one requests a contested case hearing, and which meet all other requirements in 30 TAC 50.133(a) are uncontested applications and will be acted on by the executive director. An uncontested application will be placed on the executive director's agenda and the permit will be issued. The TCEQ will then mail notice that the permit was issued. The notice will be mailed according to 30 TAC 50.133(b) to the applicant, to any person who requested to be on the mailing list for the application, any person who submitted comments during the public comment period, and any person who timely filed a request for a contested case hearing. The notice will include information about the opportunity to file a motion to overturn the executive director's decision. Any motion to overturn the executive director's decision must be submitted no later than 23 days after the date the agency mails notice of the issued permit.

**15. Executive Director's Preliminary Decision**

The executive director has made the preliminary decision that this proposed permit, if issued, meets all statutory and regulatory requirements.

**16. Additional Information**

For information concerning the regulations covering this application, contact the Municipal Solid Waste Permits Section:

Mr. Armando Barrera, Environmental Permit Specialist  
Municipal Solid Waste Permits Section, MC 124  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, TX 78711  
(512) 239-4756

For more detailed technical information concerning any aspect of this application or to request a copy of the SDP or SOP, please contact the consulting engineer or the applicant at the address provided at the beginning of this summary.

The application can be viewed on the internet at  
<https://www.tceq.texas.gov/goto/mswapps>

For information concerning the legal aspects of the hearing process, agency rules, and submitting public comments, please contact the Texas Commission on Environmental Quality's Office of the Public Interest Counsel at (512) 239-6363.

**Attachment 1—Municipal Solid Waste Site Assessment Form**