

**TECHNICAL SUMMARY  
of the  
Pescadito Environmental Resource Center  
MSW Permit Application  
No. 2374**

**Type I  
Municipal Solid Waste Management Facility  
Webb County, Texas**

**Applicant:  
Rancho Viejo Waste Management, LLC**

**Date Prepared: March 1, 2016**

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

This summary was prepared in accordance with Title 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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Name of Facility: Pescadito Environmental Resource Center

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**1.0 GENERAL.**

**1.1 Purpose:**

The applicant has submitted this application requesting authorization to construct and operate Pescadito Environmental Resource Center (PERC), a MSW Type I landfill, recycling, and solid waste management facility in Webb County, Texas. PERC will be a comprehensive recycling and waste management facility that will provide municipal and industrial solid waste landfill disposal, processing of recyclable materials to extract reusable commodities, and processing of liquid wastes including grease and grit trap wastes. The facility will include two Type I MSW landfill disposal units (north and south units) with nonhazardous Class I industrial solid waste cells, a liquid waste solidification area, a recyclable materials recovery area, a large item/white goods and tire storage area, a leachate storage facility, and a citizens' convenience center. The total permitted facility will include 953 acres of which approximately 660 acres will be used for the two Type I MSW landfill waste disposal units. The final elevation of the waste fill and final cover material will be 858 feet above mean sea level (msl) for the north landfill unit and 843 feet above msl for the south landfill unit.

**1.2 Wastes to be Accepted:**

The PERC recycling and solid waste management facility will accept recyclable materials and municipal solid waste. Solid waste to be disposed in the landfill units will consist 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, dead animals, abandoned automobiles, construction-demolition waste, yard waste, Class 1, 2, or 3 non-hazardous industrial solid wastes, and special wastes. Non-hazardous liquid from municipal sources will be processed at the liquid waste solidification units.

The proposed facility will not be authorized to accept wastes other than the wastes mentioned above without prior authorization and in accordance with Title 30 Texas Administrative Code (30 TAC) Section (§) 305.62(j)(2)(A). Also, those waste streams that are expressly prohibited by 30 TAC §330.15 will not be accepted.

**1.3 Waste Acceptance Rate and Site Life:**

Authorized solid wastes will be accepted at an initial rate of approximately 2,740 tons-per-day (tpd) and may increase to a maximum of 10,000 tpd. Non-hazardous liquid

from municipal sources will be accepted for solidification processing at a rate of approximately 50,000 gallons per day. The estimated site life is approximately 47 years.

## **2.0 TECHNICAL REVIEW.**

The application has been technically reviewed by the Municipal Solid Waste Permits Section to determine its compliance with the applicable requirements in 30 TAC Chapters 305 and 330. Chapter 330 contains the minimum regulatory criteria for municipal solid waste facilities. It has been determined that the information in the permit application, along with the draft permit, demonstrates compliance with these regulatory requirements. A draft permit has been prepared, and the application has been declared technically complete.

## **3.0 LOCATION AND SIZE.**

### **3.1 Location:**

Pescadito Environmental Resource Center is located in Webb County, Texas at approximately 20 miles east of the City of Laredo midway between US 59 and SH 359 and approximately 4 miles southeast of the community of Ranchitos Las Lomas. The site is located entirely within the 12,194- acre Yugo Ranch that is owned by Rancho Viejo Cattle Company, Ltd.

### **3.2 Elevation and Coordinates of Permanent Benchmark:**

Latitude: N 27° 33' 32.4"  
Longitude: W 99° 09' 35.994"  
Elevation: 564.67 feet above msl

### **3.3 Size:**

The total area within the permit boundary under the proposed permit is approximately 953 acres.

## **4.0 FACILITY DESIGN, CONSTRUCTION, AND OPERATIONS.**

### **4.1 Facilities Authorized:**

The permit will authorize the operation of a MSW Type I landfill, recycling, and solid waste management facility including two landfill disposal units with a total net disposal volume (waste and daily cover) of approximately 223 million 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, an all-weather entrance road to the site, all-weather access roads, soil stockpiles, landfill gas monitoring and collection system, leachate collection system, groundwater monitoring system, liquid waste solidification units, recyclable materials recovery area, large items and white goods storage area, tire storage area, and citizens' convenience center, and the solid waste disposal area. Structures for surface drainage and stormwater run-on/runoff control include a perimeter drainage system to convey stormwater runoff around the site, berms, ditches, detention ponds and associated drainage structures. Portions of the site including waste disposal areas were previously shown within the 100-year floodplain. However, a Conditional Letter of Map Revision was approved by the Federal Emergency Management Agency for drainage improvements to remove most of the facility area and the landfill unit footprints from the 100-year floodplain.

4.2 Landfill Waste Placement:

For the north landfill unit, the maximum elevation of waste placement will be 855 feet above msl, the minimum elevation of waste placement will be 449.7 feet above msl, and the deepest excavation elevation for the liner and sumps is 444.7 feet above msl. For the south landfill unit, the maximum elevation of waste placement will be 840 feet msl, the minimum elevation of waste placement will be 436.3 feet above msl, and the deepest excavation elevation for the liner and sumps is 431.3 feet above msl.

4.3 Landfill Liner System:

A composite 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):

- 2 feet protective soil
- Double sided geocomposite drainage layer
- 60 mil textured HDPE geomembrane
- 24 inches compacted clay with hydraulic conductivity of  $\leq 1 \times 10^{-7}$  cm/s (36 inches compacted clay with hydraulic conductivity of  $\leq 1 \times 10^{-7}$  cm/s for designated Class 1 wastes cells)

4.4 Landfill Final Cover System:

A water balance (WB) alternative final cover system designed to meet the requirements of 30 TAC Chapter 330 Subchapter K will be placed on the above-grade waste. The final cover system consists of the following components (listed in order from top to bottom):

- 7 inches of erosion layer capable of sustaining native plant growth
- 30 inches infiltration layer with hydraulic conductivity of  $\leq 1 \times 10^{-5}$  cm/s
- 12 inches of intermediate layer

4.5 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 will be recirculated and will be applied to waste at the working face areas. Leachate will be stored in either leachate storage tanks or leachate evaporation pond. Excess leachate will be transported off-site for treatment and disposal. 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.

4.6 Landfill Buffer:

Buffer zones have been determined for this facility in accordance with §330.543. In order to protect adjacent properties, a buffer zone with a minimum width of 125 feet from the limits of waste will be maintained. In addition, a minimum offsite buffer distance of over 1,000 feet surrounding the proposed site (except the south portion) has been provided between disposal areas and adjacent property.

**5.0 LAND USE.**

Land use in the vicinity of the site was evaluated in accordance with 30 TAC §330.51(h).

5.1 Zoning:

The facility will be located in Webb County, Texas approximately 20 miles east of the

City of Laredo and 5 miles southeast of U.S. Highway 59 at the community of Ranchitos Las Lomas and outside of the incorporated limits of any city and would therefore not be subject to city zoning ordinances.

5.2 Surrounding land uses:

The site is located entirely within the 12,194- acre Yugo Ranch that is owned by Rancho Viejo Cattle Company, Ltd. The property has historically been used for cattle ranching, game management, and oil and gas production for many years. The surrounding land is used for game (wildlife) management, cattle ranching and the production of natural gas.

The site is about two miles north of the north end of Jordan Road. This is the closest area to the site that is accessible to the general public, as the access road into the site from Jordan Road is privately owned.

5.3 Residences and Businesses:

Structures located within the 1 mile boundary of the site include three residences consisting of two houses and one mobile home, and an occasional travel trailer. The residences house employees of Yugo Ranch which is owned by the applicant.

5.4 Schools, Churches, and Historical Sites:

There are no known schools, licensed day-care facilities, cemeteries, or churches within one mile of the permit boundary. There are no recorded archeological, historical or aesthetic sites within one mile of the facility.

5.5 Growth Trends:

The population of Webb County (2000 Census) was 193, 117, and the population estimate for 2009 is 241,438, an increase of about 33 percent. Within a one-mile radius of the facility, the long-term population is estimated to be fewer than 10 persons, and this population has no growth or growth trend. Historic population data indicates the population of Ranchitos Las Lomas has been about 300 to 350 persons for many years. Visual observation of this community shows no evidence of recent growth, such as new homes or commercial buildings.

5.6 Land Use Compatibility:

The South Texas Development Council (STDC) reviewed Parts I and II of the application and determined the proposed facility conforms to the regional plan, and is compatible with land use in the area. In addition, Webb County concluded that the facility was "in a location that is both environmentally well-suited and compatible with surrounding land use."

**6.0 LOCATION RESTRICTIONS**

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

6.1 Airport Safety:

The landfill is not located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used by only piston-type aircraft. The facility is considered to be in compliance with 30 TAC §330.545. The Laredo International Airport, the nearest known airport, is more than 20 miles from the site. The Federal Aviation Administration was contacted and did not object to the location of the landfill site.

6.2 Floodplains:

Portions of the site including waste disposal areas were previously shown within the 100-year floodplain. However, a Conditional Letter of Map Revision was approved by the Federal Emergency Management Agency for drainage improvements to remove most of the facility area and the landfill unit footprints from the 100-year floodplain. The facility is considered to be in compliance with 30 TAC §330.547.

6.3 Wetlands:

The U.S. Army Corps of Engineers approved the Jurisdictional Determination and the U.S. Environmental Protection Agency concurred that the site contains only "intra-state, isolated, non-navigable waters" under 33 CFR 328.3 (a)(3). Correspondence was received from the U.S. Army Corps of Engineers stating that this project will not involve activities subject to the requirements of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899. The facility is considered to be in compliance with 30 TAC §330.553.

6.4 Fault Areas and Seismic Impact Zones:

There are no known faults within 200 feet of the site in accordance with 30 TAC §330.555. The facility is not located within a seismic impact zone as defined in 30 TAC §330.557. Therefore, the facility is considered to be in compliance with 30 TAC §330.555 and §330.557.

6.5 Unstable Areas:

The site area is geologically stable, with no evidence of faults and a historical earthquake incidence rate significantly below the Texas state average. No known unstable areas as defined in 30 TAC §330.559 were found at the site. The facility is considered to be in compliance with 30 TAC §330.559.

6.6 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.

**7.0 TRANSPORTATION AND ACCESS.**

The primary access to the site is through State Highway 359. Traffic would go northerly on Jordan Road, travel approximately 5 miles, and onto a private road to approach the facility entrance. The private road is owned by the applicant. Direct access to the site is from an all-weather surfaced, private road on property owned by the applicant. The main access road to the private road and the site is Jordan Road, a county road with no posted vehicle weight limits.

Jordan Road is accessed from State Highway 359. The nearest traffic count that was available to the applicant was obtained from the Texas Department of Transportation (TxDOT) for traffic on State Highway 359, three miles east of Loop 20. Loop 20 intersects State Highway 359 near the City of Laredo. The facility is approximately 20 miles east of the City of Laredo. For the five-year period from 1995 through 1999, the average daily traffic count was 6,080 vehicles per day. The average daily traffic count at this location in 2009 was 8,800 vehicles per day. Based on this increase, projection for the year 2021 is anticipated to be 12,760 vehicles and 18,500 vehicles for the year 2033. The site related traffic is not anticipated to significantly impact the estimated future traffic conditions. The majority of the waste and recyclable materials to be taken to the facility are proposed to be hauled by rail.

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. TxDOT reviewed the proposed access and traffic and concluded that the project does not conflict with any traffic or location restrictions and has been planned in a manner that does not appear to negatively impact traffic operations on the state highway system.

## **8.0 SURFACE WATER PROTECTION.**

As defined in 30 TAC §330.3, contaminated water is water which has come into contact with waste, leachate, or gas condensate. Stormwater which 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 run-on/run-off 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.

## **9.0 GROUNDWATER PROTECTION.**

### **9.1 Liner and Leachate Collection System:**

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

### **9.2 Monitoring Wells:**

The groundwater monitoring system will provide for early detection of potential releases from the facility will consist of a total of 38 wells with a maximum spacing of 600 feet. The groundwater monitoring network will be sampled, analyzed, and monitored in accordance with procedures in a Groundwater Sampling and Analysis Plan (Attachment III-F of the Permit Application), which is part of the facility permit.

### **9.3 Groundwater**

The uppermost aquifer beneath the site that is capable of producing groundwater in potentially useful quantities to wells is the Yegua-Jackson Aquifer, hundreds of feet below ground surface in the project area. The Yegua-Jackson Aquifer is under confining pressure due to the effective upper confining unit or "aquiclude" provided by hundreds of feet of low permeability Yegua-Jackson clays. The effectiveness of the upper confining unit is demonstrated by conditions at the nearby Ranch Well adjacent to the facility which shows a confining pressure, i.e., a static water level of approximately 220 feet bgs although the water-producing Yegua sands are hundreds of feet lower. The upper confining unit or "aquiclude" to the uppermost Yegua-Jackson Aquifer provides effective environmental protection to the aquifer.

There are few water wells in the area around the site and all are drilled to depths around 1,000 feet in the Yegua-Jackson Aquifer. The closest is the ranch well, the only well within one mile of the site. Texas Water Development Board (TWDB) records indicate there are eight additional wells within a five-mile radius of the site – four of those are in the Ranchitos Las Lomas Community over 4.5 miles from the site.

## **10.0 LANDFILL GAS MANAGEMENT.**

Landfill gas migration will be monitored around the perimeter of the facility utilizing permanent landfill gas monitoring probes. TCEQ regulations require that gas monitoring be conducted quarterly to detect any possible migration of methane gas beyond the facility property boundary and in enclosed structures within the facility property boundary.

**11.0 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.

**12.0 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.

**13.0 PUBLIC PARTICIPATION PROCESS**

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

- 13.1 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 this meeting the commission accepts formal comments on the application. There is also an informal question and answer period.
- 13.2 After technical review of the application is completed, a final draft permit is prepared, and the application is declared technically complete. Information for the application, the draft permit, the notice, and summaries are sent to the chief clerk's office for processing.
- 13.3 The "Notice of Application" is sent to the applicant and published in the newspaper. This notice provides a 30-day period, from the date of publication, for the public to make comment(s) about the application or draft permit. The notice also allows the public to request a public meeting for the proposed facility.
- 13.4 After the 30-day comment period has ended, a "Response to Comments" (RTC) is prepared for all comments received through the mail and at a public meeting. The RTC is then sent to all persons who commented on the application. Persons who receive the comments have a 30-day period after the RTC is mailed in which to request a public hearing.
- 13.5 After the 30-day period to request a hearing is complete, the matter is placed on an agenda meeting for the TCEQ commissioners to make a determination to grant any of the hearing requests and refer the matter to the State Office of Administrative Hearings for a public hearing.
- 13.6 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 all of this is complete, the ALJ will issue a Proposal for Decision (PFD). This PFD is placed on an agenda meeting of the TCEQ commissioners for consideration of issuance or denial of a permit.
- 13.7 After the commission has approved or denied an application, a motion for rehearing may be made by a party that does not agree with the decision. Any motion for rehearing must be filed no later than 20 days after the party or the party's attorney of record is notified of the decision. The matter could be set on another agenda for consideration by the commission, or allowed to expire by operation of law.



- 13.8 Applications for which no one requests a contested case hearing are considered uncontested matters after the 30-day comment period. The application is placed on the executive director's signature docket and a permit is issued. Any motion to overturn the executive director's decision must be filed no later than 23 days after the agency mails notice of the signed permit.

**14.0 ADDITIONAL INFORMATION**

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

Mr. Pladej "Hunt" Prompungorn  
Municipal Solid Waste Permits Section, MC 124  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, TX 78711-3087  
(713) 767-3672

For more detailed technical information concerning any aspect of this application or to request a copy of the Site Development Plan, 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 [http://www.tceq.texas.gov/permitting/waste\\_permits/msw\\_permits/msw\\_posted\\_apps.html](http://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw_posted_apps.html) or at the Laredo Public Library.

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.