

MUNICIPAL SOLID WASTE PERMIT MAJOR AMENDMENT

PART III-ATTACHMENT B GENERAL FACILITY DESIGN



NAME OF PROJECT: Beck Landfill

MSW PERMIT APPLICATION NO.: 1848A

OWNER: Nido, LTD (CN603075011)

OPERATOR: Beck Landfill (RN102310968)

CITY, COUNTY: Schertz, Guadalupe County

Major Amendment: Revised January 2023

Prepared by:



Civil & Environmental Consultants, Inc.

Texas Registration Number F-38
3711 S MoPac Expressway
Building 1 Suite 550,
Austin, Texas 78746
(512) 329-0006



TABLE OF CONTENTS

1.0 FACILITY ACCESS1

2.0 WASTE MOVEMENT.....2
 2.1 Waste Disposal..... 2

3.0 STORAGE AND PROCESSING UNITS3
 3.1 Wood Waste Processing Area..... 5
 3.2 Recyclable Material Recovery Area 5

4.0 SANITATION5
 4.1 Wood Waste Processing Area..... 5
 4.2 Recyclable Material Recovery Area 6

5.0 WATER POLLUTION CONTROL6

6.0 ENDANGERED SPECIES PROTECTION.....7

7.0 BENCHMARK.....7

Attachment B – Drawings

B.1 Waste Movement Flow Diagram



1.0 FACILITY ACCESS

Access to Beck Landfill is controlled by a perimeter fence located along portions of the facility boundary, Cibolo Creek, which acts as a natural barrier, and a locking gate at the site entrance. The fence, creek, and gate will prevent the entry of livestock, protect the public from exposure to potential health and safety hazards, discourage unauthorized public access to the disposal operations, and discourage unauthorized entry or uncontrolled disposal of solid waste or prohibited materials. Perimeter fencing consisting of barbed wire, woven wire, or other suitable material will be provided. See Figure D1.1 for locations of the fencing.

An entrance gate is located on the entrance road. The gate is locked when the landfill personnel leave for the day. The perimeter fence and gate will be inspected periodically as specified in the Site Operating Plan. Maintenance will be performed as necessary. Should a breach be detected during inspection or at any other time, every reasonable effort will be made to make repairs within 24 hours of detection. Should repairs require more than 24 hours, temporary repairs will be performed within the time specified to the TCEQ region office following notification. The TCEQ region office will be notified of the breach within 24 hours of detection unless permanent repairs are made within eight hours of detection.

Entry to the active portion of the site will be restricted to designated personnel, approved waste haulers, properly identified persons whose entry is authorized by site management, and regulatory personnel. Visitors may be allowed on the active area only when accompanied by a site representative. Signs will be located along the entrance road directing traffic to the gatehouse. The gate attendant will restrict site access to authorized vehicles and direct these vehicles appropriately.

Waste hauling vehicles will be directed to appropriate fill areas by signs located along the landfill haul road and access road. These vehicles will deposit their loads and depart the site. Private, commercial, or public solid waste vehicles will not be allowed access to any areas other than the active portion of the landfill. Site personnel will provide traffic directions as necessary to facilitate safe movement of vehicles. Within the site, signs will be placed along the landfill haul road and access road at a frequency adequate for users to be able to determine the disposal area locations and which roads are to be used. Roads not being used for access to disposal areas will be blocked or otherwise marked for no entry.

2.0 WASTE MOVEMENT

The major classifications of solid waste to be accepted at Beck Landfill include brush, construction, or demolition waste, and/or rubbish (C&D waste). Waste disposal facilities include the C&D solid waste disposal area. Waste processing and/or storage facilities include the brush and wood grinding area. Drawing B.1 is a flow diagram that provides the storage, processing, and disposal sequences for the various wastes accepted. Waste enters the facility via the site entrance road. The gate attendant observes the incoming waste at the gatehouse, conducts waste screening and weighing, and documents the incoming waste. The gate attendant is familiar with the rules and regulations governing the various types of waste that can or cannot be accepted into this facility and will direct the waste hauler to the appropriate waste disposal, storage, or processing area. These gatehouse personnel will also have the authority to reject prohibited wastes and have the rejected waste removed by the waste haul vehicle or transporter immediately upon discovery.

Trained personnel will observe waste unloading at the active working face and will have the authority and responsibility to reject loads that contain prohibited wastes. These working face personnel will also have the authority to have prohibited waste removed by the waste haul vehicle or transporter immediately upon discovery.

2.1 WASTE DISPOSAL

The proposed landfill liner and final cover systems will meet all applicable Subtitle D requirements and TCEQ rules and guidelines for Type IV landfills. Provisions addressing design and construction are addressed in the liner quality control plan, the contaminated water management plan, and the final cover quality control plan.

The waste disposal area will be excavated with side slopes no steeper than 3H:1V. The in-situ liner system will be evaluated following excavation of a new waste disposal area. Information regarding materials and construction quality assurance are included in Attachment D7 - Liner Quality Control Plan. Liner system details are also included in Attachment D7.

The proposed landfill development method for the site is a combination of the below-grade area excavation fill followed by aerial fill to the proposed landfill completion height. Landfill

development will generally follow the sequence of development as shown on Drawing D1.2, which will generally be in the order the cells are numbered.

Waste accepted for disposal will be directed to the active working face. Waste will be unloaded within the active working face, spread in layers and thoroughly compacted. Weekly operational cover of waste will be applied to control disease vectors, windblown waste, odors, fires, scavenging, and to promote runoff from the fill area. Operational cover consisting of a minimum of six inches of soil will be placed over wastes at the end of each week.

The aerial fill side slopes will not be steeper than 4H:1V, and the aerial fill top slope will be approximately six percent. A final cover will be constructed over the entire landfill as detailed in Attachment D8-Final Cover Quality Control Plan

Final cover placement will generally follow the sequence of development as shown on Drawing D1.3 through D1.6 and may be ongoing as the site is developed. Sectors will be closed according to the closure plan provided in Part III, Attachment H- Closure Plan.

3.0 STORAGE AND PROCESSING UNITS

The Beck Landfill facility contains the following storage and processing units:

1. Wood waste processing area, and
2. Recyclable material recovery area.

The wastes stored or processed in these areas emanate from residential, municipal, and commercial sources, and include brush, wood scraps, saw dust, pallets, other wood wastes, metal, concrete, plastic, and other recyclable materials. These facilities may not receive, process, or store regulated hazardous waste. There are no known waste constituents or characteristics that could be a limiting parameter that would impact or influence the design and operation of the facilities.

The types and an estimate of the amount of each waste to be received daily will vary based on market conditions and availability of storage or processing capacity. The maximum amount of waste to be stored at any point is based on the storage capacity of each unit. Material will be stored for a maximum of 180 days. The intended destination of material stored and/or processed at the

wood waste processing area is for offsite use as a bio-fuel or onsite use for erosion controls and site roads.

All waste shall be stored in such a manner that it does not constitute a fire, safety, or health hazard or provide food or harborage for animals and vectors, and shall be contained or bundled so as not to result in litter. The brush storage and grinding area will be separated from any onsite structures or other facilities. Brush piles will be maintained at a maximum size of one acre to limit fire potential. See Section 7 of Part IV SOP for specific fire-fighting procedures for the proposed processing and storage areas. Pressurized water is available near all onsite buildings, but it is not planned to be used for firefighting purposes. The site water truck may be used for extinguishing fires as detailed in Part IV-Section 7. All employees working at or near the storage and processing areas shall be trained on the requirements of the Fire Protection Plan included in Part IV-Section 7.

Vehicle parking for equipment, employees, and visitors will be provided. Employees will park near the landfill maintenance facility and visitors will park at the scalehouse. Equipment can be parked adjacent to the storage or processing unit. See Part IV-Section 8.1 for access control provisions for the facility.

No processing or storage areas are susceptible to significant leaks or spills.

There is not significant noise pollution anticipated to be generated at the storage and processing areas. The loudest anticipated noise will be the back-up alarms from equipment operating at these facilities. The storage and processing areas will be set back as far as practicable from the permit boundary to mitigate noise pollution and will only be operated during the approved operating hours for the facility.

There are no sumps or floor drains required for any of the storage or processing facilities.

3.1 WOOD WASTE PROCESSING AREA

The wood waste processing area will be located within the landfill footprint and will process incoming yard trimmings, clean wood materials and vegetative materials, including trees and brush, into wood chips and mulch. The wood chips and mulch will be used on-site or sent offsite for further processing or use as a bio-fuel. The wood chips and mulch will be stored in small piles and will be managed to prevent fire, safety, or health hazards in accordance with 30 TAC§330.209(a). The active wood waste processing area will not be larger than approximately 150 feet by 150 feet. The wood processing area will be located outside of the 100-year floodplain boundary.

3.2 RECYCLABLE MATERIAL RECOVERY AREA

The recyclable material recovery area will be located within the landfill footprint and will process incoming metal, concrete, plastic, and other recyclable materials. The recycled materials will be sent offsite for processing. The materials will be stored in roll-offs or small piles and will be managed to prevent fire, safety, or health hazards in accordance with 30 TAC§330.209(a). The recyclable material area will not be larger than approximately 150 feet by 150 feet. The recyclable material area will be located outside of the 100-year floodplain boundary.

4.0 SANITATION

The solid waste processing and/or storage facilities include the wood waste processing area and recyclable materials area, which have been designed to facilitate proper cleaning. Refer to Section 2 - Waste Movement And Section 3 – Storage and Processing Units for a discussion of each of the solid waste processing facilities. Operational requirements for each facility are described in Part IV- Site Operating Plan, including a discussion of surface water controls, cleaning facilities, and contaminated water.

4.1 WOOD WASTE PROCESSING AREA

Wood wastes received will be chipped and stockpiled only to be used for site operations or sent offsite for further processing. The area will consist of small piles managed to prevent litter and control fire, health hazards and safety in accordance with §330.209(a). There are no water runoff and runoff control, or additional sanitation controls required.

4.2 RECYCLABLE MATERIAL RECOVERY AREA

The recyclable material recovery area will be located within the landfill footprint and will process incoming metal, concrete, plastic, and other recyclable materials. The recycled materials will be sent offsite for further processing. The materials will be stored in roll-offs or small piles and managed to prevent litter and control fire, health hazards and safety in accordance with §330.209(a). There are no water runoff and runoff control, or additional sanitation controls required.

5.0 WATER POLLUTION CONTROL

The processing and/or storage facilities will be maintained and operated to manage runoff and runoff during the peak discharge from the 25-year, 24-hour storm event to prevent the off-site discharge of waste and feedstock material, including, but not limited to, processed or stored materials. Surface water in and around each processing and/or storage facility will be controlled to minimize surface water running onto, into, and off the processing and/or storage area. Since all contaminated water will be managed in a controlled manner, as discussed above, groundwater will be protected. Should the discharge of contaminated water become necessary, the facility will obtain specific written authorization from the TCEQ prior to discharge. The landfill and its processing and/or storage facilities will be operated consistent with §330.15(h)(1)-(4) regarding discharge of solid wastes or pollutants into waters of the United States or waters of the state.

The design of the landfill itself and the surface water management system for the facility will prevent the discharge of solid waste, pollutants, dredged or fill material and nonpoint source pollution that would violate any of the provisions referenced in 30 TAC§330.15(h). The facility has been designed to keep contaminated surface water (water that may have come into contact with waste at the landfill) separated from uncontaminated stormwater runoff. The contaminated water will not be discharged to the surface water management system at the site.

Refer to Section 2 - Waste Movement and Section 3 – Storage and Processing Units for a discussion of the solid waste processing and/or storage facilities and Part IV- Site Operating Plan

for a discussion of operational requirements. Refer to Part III, Attachment D6 - Contaminated Water Plan for a discussion of contaminated water management.

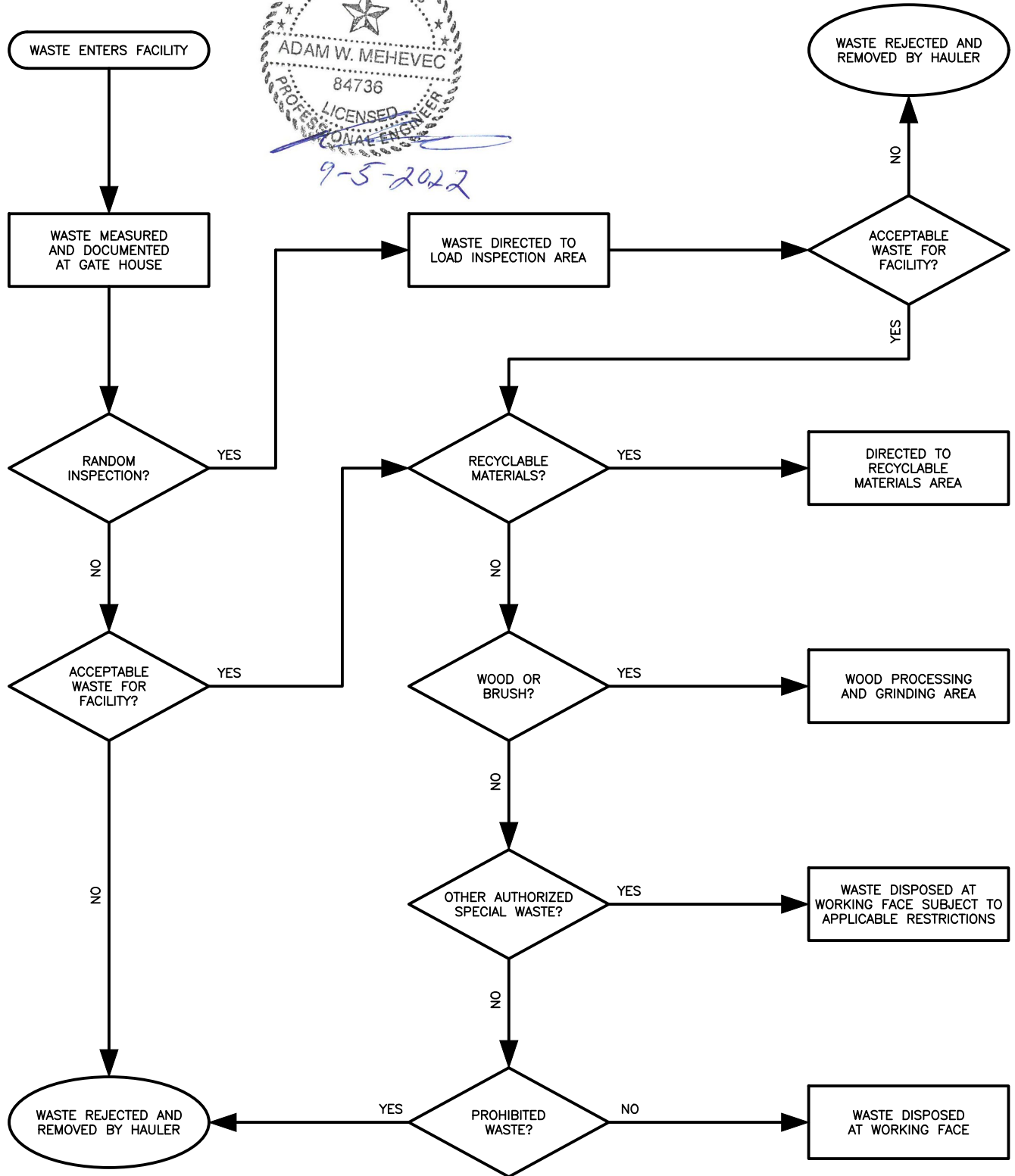
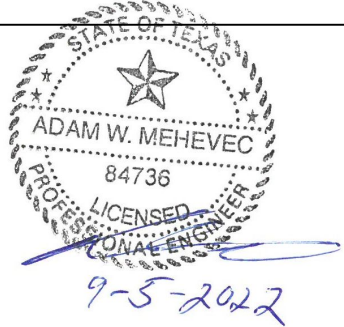
6.0 ENDANGERED SPECIES PROTECTION

A detailed threatened and endangered species survey and assessment for the landfill expansion area was conducted by a qualified biologist. The surveys and assessments along with coordination with the United States Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD) regarding endangered and threatened species is provided in Part II, Appendix II-H Endangered or Threatened Species Documentation.

Development of the facility shall be conducted to minimize potential impacts to endangered or threatened species. The facility and the operation of the facility 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.

7.0 BENCHMARK

The location and elevation of the permanent benchmark for the site is indicated on the Site Layout Plan (Figure D1.1). The benchmark is conveniently located near the scalehouse.



P:\310-000\311-653\CADD\DWG\SW01\311653-BECK LANDFILL Flow Chart.dwg LS:(8/28/2022 - amehevec) - LP: 9/6/2022 11:59 PM

REVISION RECORD		
NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
 3711 South MoPac Expressway · Building 1, Suite 550 · Austin, TX 78746
 Ph: 512.439.0400 · Fax: 512.329.0096
 www.cecinc.com Texas Registered Engineering Firm F-38

NIDO, LTD
BECK LANDFILL
BEXAR COUNTY, TEXAS

DRAWN BY: MFV	CHECKED BY: AWM	APPROVED BY: AWM	FIGURE NO.: B.1
DATE: 09/2022	DWG SCALE: 1" = 500'	PROJECT NO: 311-653	