

MUNICIPAL SOLID WASTE PERMIT MAJOR AMENDMENT

PART III-ATTACHMENT D4 SITE LIFE



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: September 2022

Prepared by:



Civil & Environmental Consultants, Inc.

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1.0 SITE LIFE

1.1 SOLID WASTE GENERATION

Beck Landfill accepts waste generated in Guadalupe County, Texas, and surrounding areas. Based on the previous aerial surveys, the facility is consuming landfill capacity airspace at a rate of approximately 580,000 cubic yards (cy) per year. The waste acceptance rate is projected to increase at an annual rate of 1.5 percent for the life of the facility as a result of the competing affects from both recycling and population growth.

1.2 LANDFILL CAPACITY

The total landfill capacity is defined as the volume between the protective cover and the top of waste, and estimates are generated using Terra Model computer software. The most recent aerial survey (June 16, 2021) estimated a remaining landfill capacity of 2,225,966 cy. The proposed expansion would increase the existing airspace by 14,033,631 cy effective as of 2023.

1.3 SITE LIFE CALCULATIONS

The proposed site will reach the design waste capacity in approximately 2045 at the projected waste acceptance rates as shown in the following calculation table.



COMPUTATION SHEET

Sheet 1 of 1

Civil & Environmental Consultants, Inc.

PROJECT NAME	PREPARED	DATE:	CHECKED	DATE	PROJECT NUMBER:
Beck Landfill	BY: AWM	1/17/2022	BY:		311-653

OBJECTIVE: Estimate Site Life

ASSUMPTIONS:

Net disposal will increase at 1.5% per year (net effect of population increase and recycling)

CALCULATION:

Calculated Airspace Gained From Expansion 14,033,631 cubic yards (see attached TerraModel sheets)

Beginning Annual Consumption Rate 571,774 cy/yr (net airspace consumed based on last TCEQ annual report)
47,648 average cy consumed per month

Year	Airspace consumed (CY)	Beginning Capacity (CY)	Ending Capacity (CY)	Comments
2021			2,225,966	Remaining Airspace June 16, 2021 (FirmaTek scan)
2021	262,063	2,225,966	1,963,903	5.5 Months of Consumption
2022	580,351	1,963,903	1,383,552	
2023	589,056	15,417,183	14,828,127	Expansion Airspace Added
2024	597,892	14,828,127	14,230,236	
2025	606,860	14,230,236	13,623,376	
2026	615,963	13,623,376	13,007,413	
2027	625,202	13,007,413	12,382,210	
2028	634,580	12,382,210	11,747,630	
2029	644,099	11,747,630	11,103,531	
2030	653,761	11,103,531	10,449,770	
2031	663,567	10,449,770	9,786,203	
2032	673,521	9,786,203	9,112,682	
2033	683,623	9,112,682	8,429,059	
2034	693,878	8,429,059	7,735,181	
2035	704,286	7,735,181	7,030,895	
2036	714,850	7,030,895	6,316,045	
2037	725,573	6,316,045	5,590,472	
2038	736,457	5,590,472	4,854,016	
2039	747,503	4,854,016	4,106,512	
2040	758,716	4,106,512	3,347,796	
2041	770,097	3,347,796	2,577,700	
2042	781,648	2,577,700	1,796,051	
2043	793,373	1,796,051	1,002,679	
2044	805,273	1,002,679	197,405	
2045	817,353	197,405	-619,947	Expected Closure 2045
2046	829,613	-619,947	-1,449,560	
2047	842,057	-1,449,560	-2,291,617	

