



THE LANDFILL IN RUTHERFORD COUNTY

Economic and Fiscal Impact

**MIDDLE
TENNESSEE**
STATE UNIVERSITY.

JONES COLLEGE OF BUSINESS
Business and Economic Research Center

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INTRODUCTION

Middle Point Landfill is the sole Class I landfill within Rutherford County or any of its adjacent counties. It is, depending upon the measurement, Tennessee's largest or second-largest landfill. It is the destination for most of the solid waste generated by Rutherford County residents and businesses, as it is for the entire Nashville region. As part of a proposed contract with Rutherford County, BFI Waste Systems of Middle Tennessee, LLC has commissioned the Business and Economic Research Center (MTSU) to measure the fiscal and economic impact of its operations in the county. In the following pages, we report our findings and their implications for Rutherford County. In doing so, we consider the regional solid waste and landfill environment with or without an operating landfill in the county.



LANDFILL USAGE

There are 30 operating Class I landfills in Tennessee. This is sharply down from the more than 90 operating at the time Tennessee's Solid Waste Management Act of 1991 was enacted. This decline is generally ascribed to more stringent EPA regulations and a more involved Tennessee permitting process. Six of these landfills are estimated to have less than two years of capacity left (Tennessee Department of Environment & Conservation [TDEC], 2023).

Unfortunately, landfills are not distributed across the state in accordance with its population centers. The counties composing the Greater Nashville Regional Council, which includes Rutherford, holds thirty percent of the state's population but has only two of the Class I landfills.¹ As a result, while the state has plenty of landfill capacity, the region is facing a coming crisis of no landfill capacity.

¹ The state has mandated the creation of a series of multi-county regional councils to manage solid waste.

Over recent years, Rutherford County has generated an average of about 550,000 tons per year of solid waste of which 425,000 tons must be disposed of in landfills (TDEC, 2022; GNRC). In 2022, landfill waste went to eight different facilities. Sixty-seven percent went to Middle Point Landfill. Cedar Ridge and West Camden landfills each took 13.5 percent of the waste, with the remaining 6 percent distributed among five other landfills. Reliance upon Middle Point has declined somewhat. It had been 75% in 2017. However, there is little doubt from the numbers that the county's residents and its businesses overwhelmingly look to Middle Point for their solid waste disposal.

The greater Nashville region contains
30% OF THE STATE'S
POPULATION
but has only two of the Class I landfills.

ABOUT MIDDLE POINT LANDFILL

Middle Point Landfill has served Murfreesboro since 1988. It is a Class I disposal facility and is operated by Browning-Ferris Industries (BFI, a subsidiary of Republic Services). Republic Services is one of the two largest landfill managers in the United States, operating 207 active landfills (Rosengren et al., 2023; Republic Services, 2024). Middle Point Landfill is adjacent to the Rutherford County Disposal Facility and the Mathews Property, also owned by Republic Services. Together, it spans over 808 acres.

As Rutherford County's primary waste disposal site, Middle Point Landfill has contributed to regional economic growth through employment, labor income, and business revenue. Middle Point Landfill currently accepts approximately 3,563 tons of waste per day and employs 34 people from the region. It also offers free disposal services for Rutherford County residents and accepts household waste from 27 Tennessee counties.

3,563
TONS | **waste**
accepted daily

FREE WASTE DISPOSAL FOR
125K Rutherford County
Households

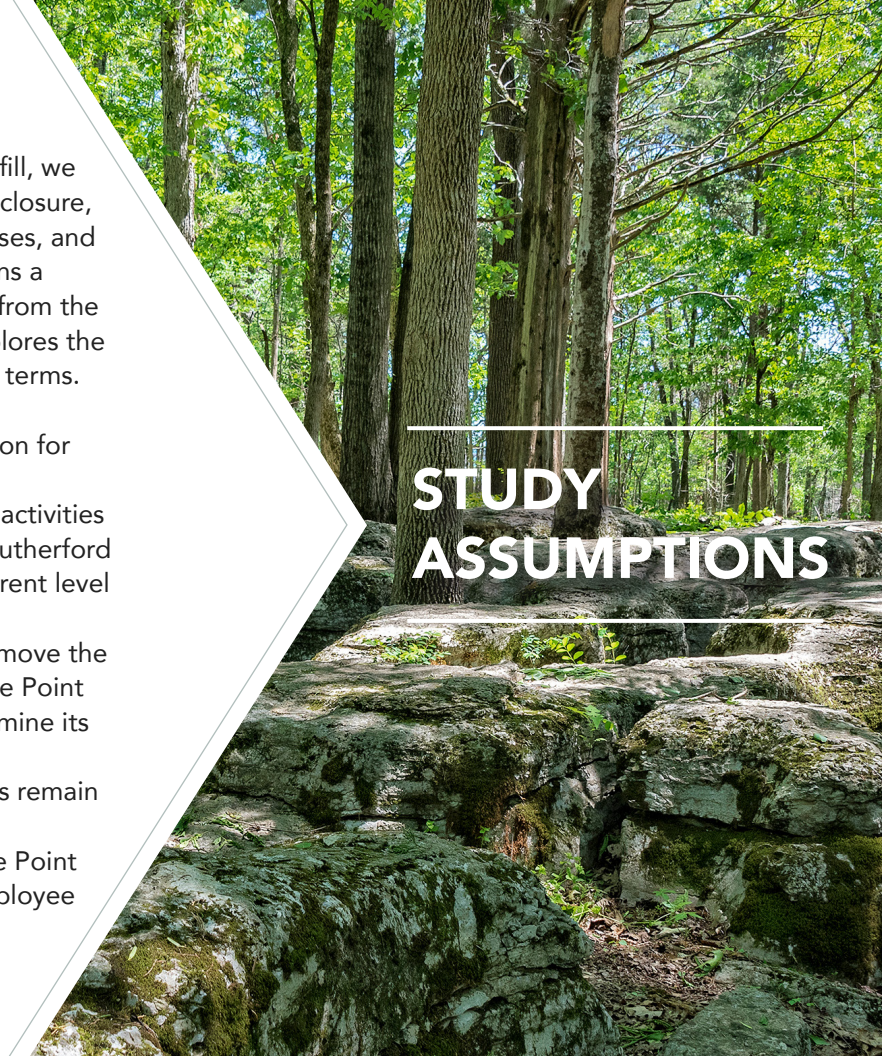
LANDFILL SIZE
808 Total
Acres

PROJECTED
5 Year
Lifespan

METHODOLOGY

In examining the economic impact of the county's landfill, we devised two scenarios to understand how its potential closure, or continuation, might affect local households, businesses, and public finances. Scenario 1 (current operations) envisions a counterfactual in which the landfill is removed entirely from the county's economy. Scenario 2 (proposed contract), explores the continuation of landfill operations under the new lease terms.

- **Study Region:** Rutherford County is the study region for this analysis.
- **Substitution Effect:** We assume that all economic activities related to Middle Point Landfill take place within Rutherford County. No other businesses will substitute the current level of operation in the short term.
- **Counterfactual Approach:** We counterfactually remove the jobs and economic activities associated with Middle Point Landfill's suppliers and vendor companies to determine its impact on the regional economy.
- **Physical Structures:** We assume physical structures remain intact.
- **Residency Adjustment:** We assume that all Middle Point employees reside in Rutherford County and all employee spendings occur within the county.



STUDY ASSUMPTIONS

Figure 1: Current and Proposed Comparison

INPUT CATEGORY	CURRENT OPERATIONS	PROPOSED CONTRACT
A. OPERATING		
Non-Payroll Operating Expenditures	\$14,798,000	\$14,798,000
Employment	34	34
Total Payroll	\$3,458,000	\$3,458,000
Annual Capital Expenditures	\$6,953,935	\$6,953,935
Philanthropic Contributions	\$110,000	\$110,000
B. LOCAL GOVERNMENT IMPACT		
Host County Revenue Fees	\$838,800	\$1,416,550
Rutherford County Landfill Operating Cost	N/A	\$1,642,000
Annual Debt Service	N/A	\$1,300,000
C. COST OF WASTE MANAGEMENT FOR RESIDENTS		
Cost of Transfer Station (Free tons + Sludge)		
Cost of Transfer Station to County Residents	\$3,116,780	\$3,116,780
Cost of Transfer Station to City Residents	\$6,830,373	\$6,830,373
D. INCREASED COST OF DOING BUSINESS		
Industrial Clients		
Manufacturing	\$558,781	\$558,781
Construction	\$867,604	\$867,604
Commercial Clients	\$1,469,220	\$1,469,220
Subscription-Based County Resident Cost Impact	\$181,853	\$181,853

IF THE LANDFILL WERE REMOVED

In assessing the current landfill's and the proposed contract's economic and fiscal impact we consider the possible effects of the landfill's absence in Rutherford County to answer three research questions:

1. *In the absence of the landfill, what would happen with the tons of waste Rutherford County currently disposes for free?*

2. *In the absence of the landfill, what would happen with the tons of waste and sludge Murfreesboro city currently disposes for free?*
3. *What would happen to area businesses in the absence of the landfill?*

The following pages offer a breakdown of the costs to residents and area businesses without access to Middle Point Landfill.

Figure 2: Cost of Per Ton of Waste for City and County Households

Transfer Station Costs	Rutherford County	Murfreesboro City
Receiving per ton	\$40.00	\$40.00
Transportation	\$22.28	\$22.28
Labor and Management	\$12.18	\$11.55
Maintenance and Fees	\$17.21	\$14.90
Total Transfer Station Cost	\$91.67	\$88.73

Source: Middle Point Landfill data and BERC calculations.

Murfreesboro City

\$6.8M

TOTAL COST BURDEN

Rutherford County

\$3.1M

TOTAL COST BURDEN

Murfreesboro City

\$116.60 per household
estimate to transfer waste

Rutherford County

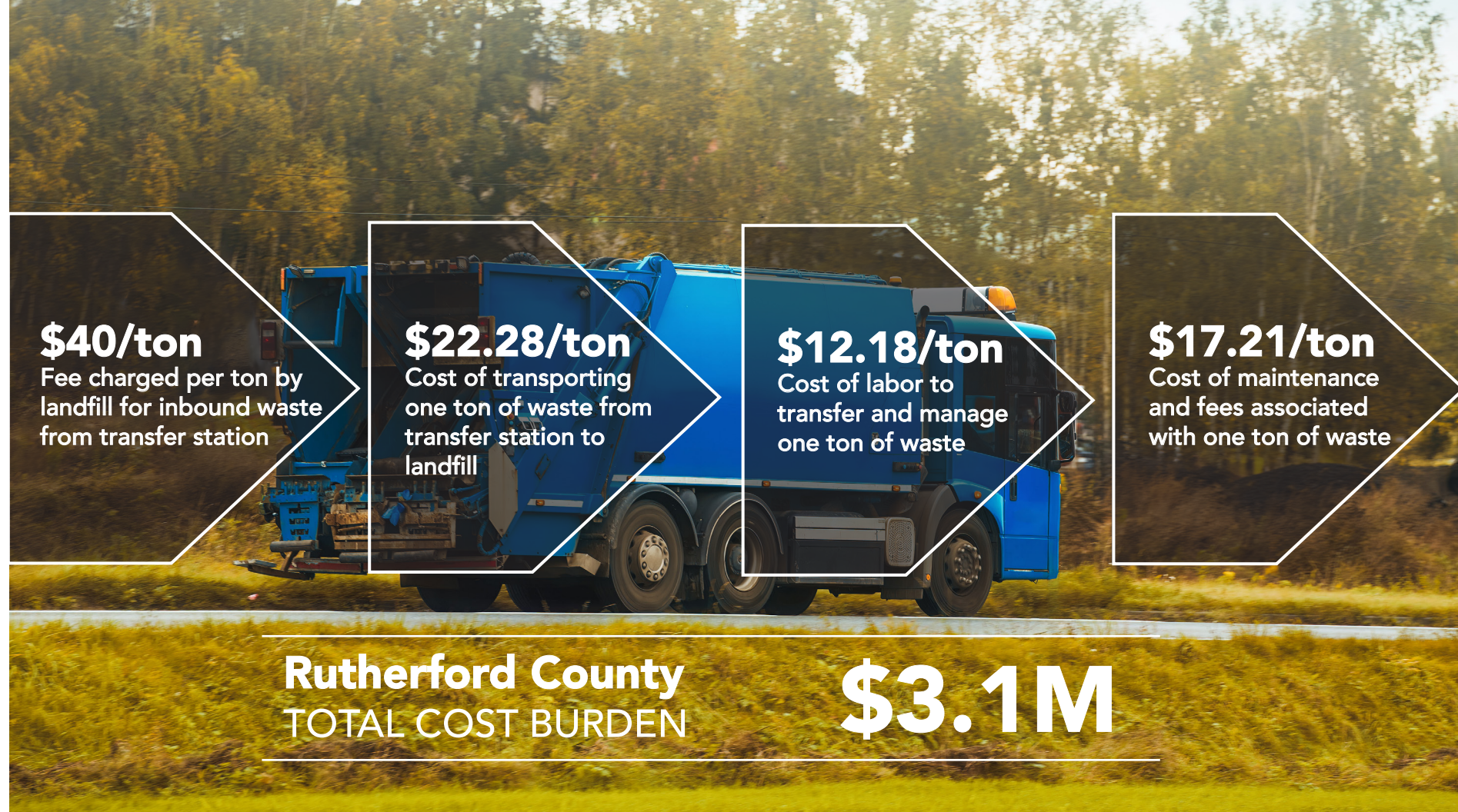
\$46.30 per household
estimate to transfer waste

COST OF WASTE MANAGEMENT FOR COUNTY RESIDENTS

In the absence of the landfill, 34,000 tons of waste that are currently handled free of charge would now have to be processed through the Rutherford County Transfer station at a cost. (This tonnage excludes the City of Murfreesboro.)

To calculate the cost increase for Rutherford County residents and businesses, we used the cost of moving one ton of residential waste. Included here is the breakdown of the costs per ton.

With each ton costing \$91.67 to manage, the total cost to the county will be \$3,116,703, a \$46.30 cost increase per county household per year.



Rutherford County

TRANSFER STATION COST

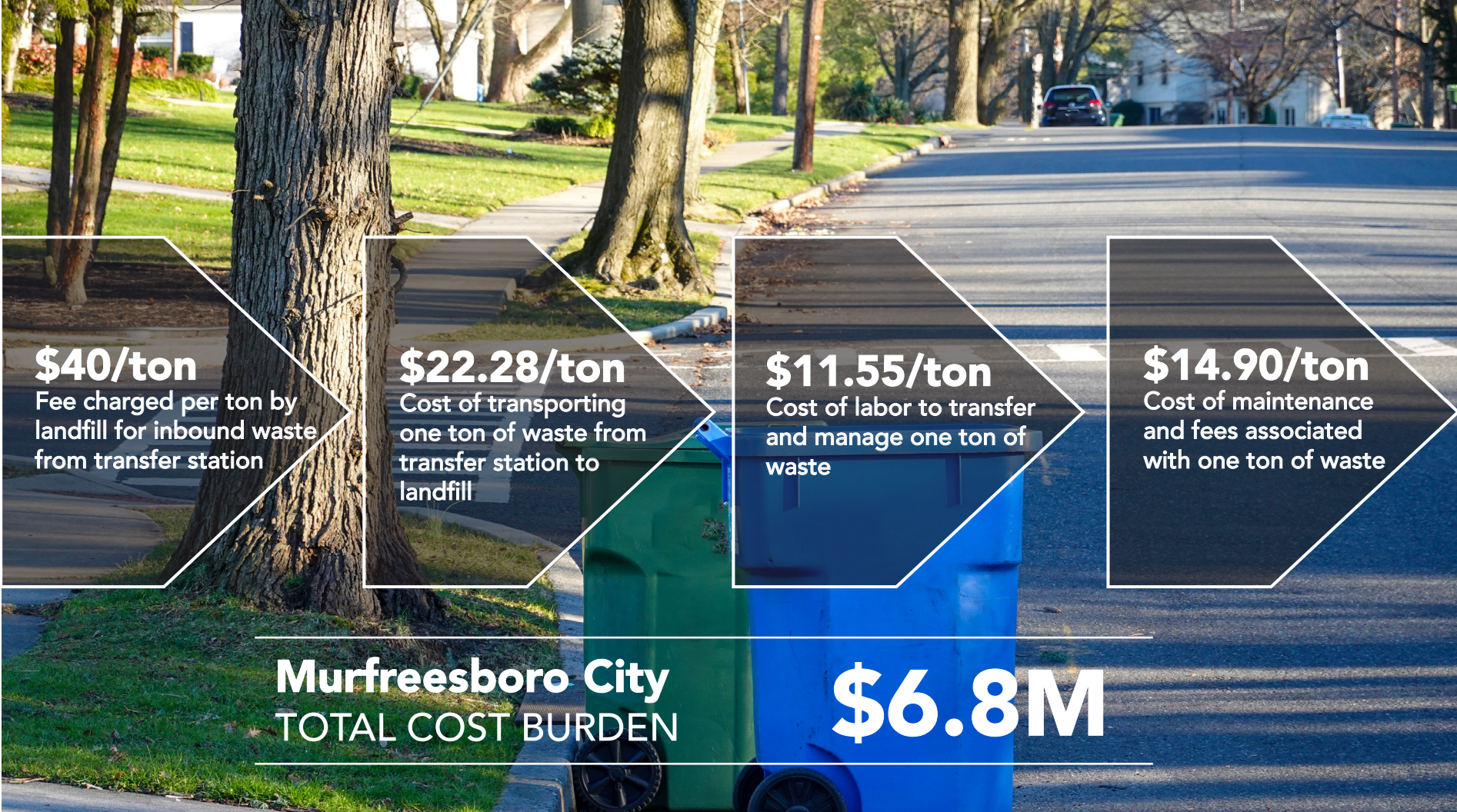
\$91.67 Per Ton

COST OF WASTE MANAGEMENT FOR CITY RESIDENTS

If the landfill did not exist, the cost burden of handling 47,000 tons of Murfreesboro city waste through the transfer station and diverting 28,000 tons of sludge to an alternative Class I landfill would be borne by the residents and City of Murfreesboro.

To calculate the cost increase for Murfreesboro city residents and businesses, we used the cost of moving one ton of residential waste. Included here is the breakdown of the costs per ton.

Each ton of waste would cost \$88.73 to manage at the transfer station. Additionally, the 28,000 tons of sludge cost \$22 per ton to transport and \$73 per ton to dispose, contributing to the total cost burden of \$6,830,373. These combined costs result in a \$116.60 annual cost increase per city household.



Murfreesboro City

TRANSFER STATION COST

\$88.73 Per Ton

SLUDGE COSTS

Transportation: **\$22/ton**
Disposal: **\$73/ton**

INCREASED COST OF DOING BUSINESS

Middle Point Landfill contracts with industrial and commercial operations to handle "special waste." Currently, 346 industrial companies in manufacturing and other industrial sectors, rely on Middle Point Landfill to manage their waste. The 1,142 commercial companies contracting with Middle Point Landfill for waste management are comprised of retail, transportation, real estate, wholesale, professional business services, and eating and drinking places.

If the landfill were no longer operating in Rutherford County, these companies would need to find a Class I landfill accepting the "special waste" they produce, resulting in an increase in the costs for area businesses. In the absence of Middle Point Landfill, most construction, retail, transportation, real estate, etc., waste (commercial) would flow through an alternative (Republic) transfer station. This process of handling the waste would result in a cost increase of \$867K to construction and \$1.4 million to other commercial clients.

346

Industrial
Clients

1,142

Commercial
Clients

1,488

Rutherford
County Clients

INCREASED COST FOR INDUSTRIAL AND COMMERCIAL CLIENTS

\$558K Costs to
Manufacturing

\$867K Costs to
Construction

\$1.4M Costs to
Commercial Clients

CURRENT ECONOMIC IMPACT

When considering the impact of the landfill's absence on Rutherford County and the City of Murfreesboro, we counterfactually removed the landfill's operations from the county's economy. To estimate the overall impact, this study calculates the direct, indirect, and induced impact of Middle Point Landfill's current operations on employment, personal income, and business revenue.

With its current operations, Middle Point Landfill has created a total of 226 jobs through its business operations. It has also contributed to a total of \$15,615,558 in personal income through its direct, indirect, and induced impact. The total business revenue impact of Middle Point Landfill's current operations is estimated to be \$49,747,483.

In terms of fiscal impact, Middle Point Landfill has contributed to county taxes as well as state and federal taxes. The total fiscal impact of Middle Point's operations is estimated to be \$4,726,998. This includes \$567,037 in county taxes and fees, \$1,274,716 in state taxes and fees, and \$2,885,245 in federal taxes and fees.



\$49.7 Million
Business Revenue Impact

\$4.7 Million
Fiscal Impact

\$15.6 Million
Wages and Salaries

226 Jobs
Created



\$52.7M

**BUSINESS
REVENUE**

\$5.1M

**FISCAL
IMPACT**

ECONOMIC IMPACT OF PROPOSED EXPANSION

BERC has also conducted an economic impact analysis of the proposed extension agreement of Middle Point Landfill with Rutherford County,

In the proposed scenario, Middle Point landfill will create a total of 242 jobs in Rutherford County. Further, it will contribute to \$16,499,179 in personal income, eventually leading to total business revenue of \$52,681,244.

In terms of fiscal impact, Middle Point Landfill's proposed operations will contribute to a total fiscal impact of \$5,148,459. This includes \$636,103 in county taxes and fees, \$1,427,409 in state taxes, and \$3,084,947 in federal taxes.



**242
JOBS
CREATED**

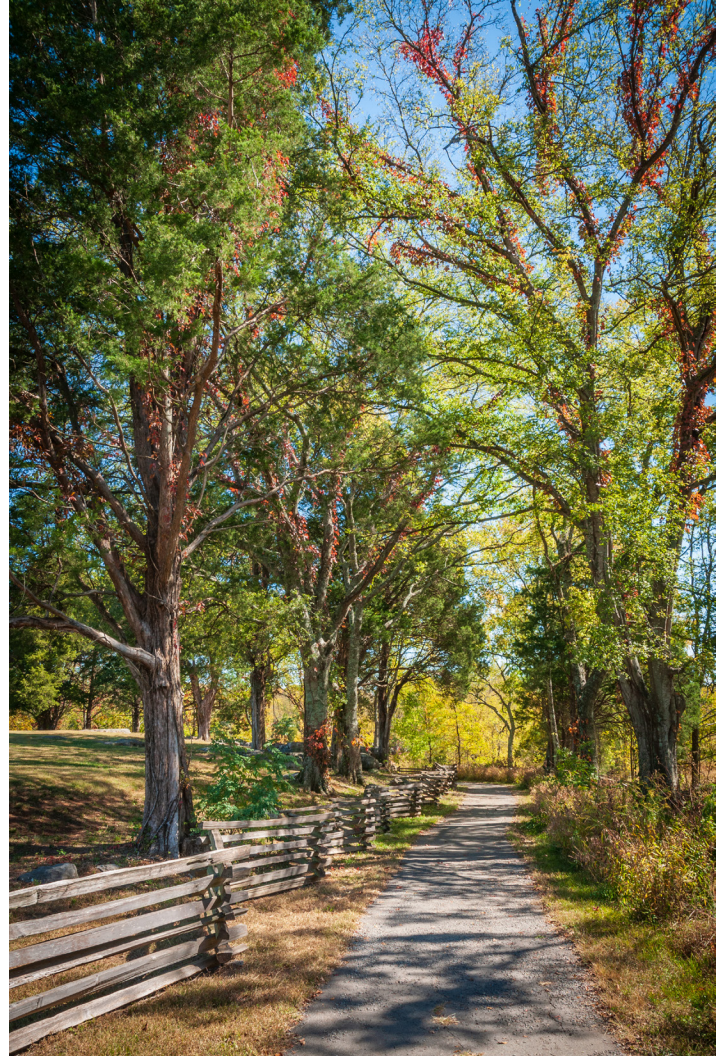
**\$16.5M
WAGES AND
SALARIES**

SUMMARY

Middle Point Landfill's projected five-year lifespan presents major challenges for Middle Tennessee. The landfill's closure will result in channeling waste through county transfer stations, resulting in burdensome costs to residents and area businesses.

The landfill's current operations result in an economic impact of 226 jobs and \$49.7 million in business revenue. And the proposed contract extension between Rutherford County and Middle Point landfill produces an even greater economic impact, resulting in 242 jobs and \$52.7 million in business revenue.

Overall, Middle Point Landfill plays a critical role in Rutherford County by allowing residents to manage their waste free of charge and providing waste management for businesses. If the current operation ceased to exist, it would significantly impact Rutherford County businesses and residents.



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