



TO: Gayle Wilson DATE: March 27, 2009
FROM: Bob Sallach OLVER PROJECT NUMBER: 20151
RE: Transfer/Haul/Disposal Alternatives Evaluation
Orange County, North Carolina

Enclosed is a summary of the results of the investigation of possible alternative approaches to siting a new municipal solid waste (MSW) transfer station in Orange County. The investigation was requested by the Board of County Commissioners (BOCC) and is being presented here as a draft for review by the County's Solid Waste Advisory Board (SWAB) and other interested parties before a report is provided to the BOCC.

Two primary factors were considered to assess transfer station alternatives:

1. Off-route costs – the cost to drive a loaded collection vehicle to each transfer station alternative from the end of each collection route location;
2. Operating costs – the cost of constructing and operating a new MSW transfer station and hauling the MSW to a regional landfill for disposal, v. the cost of paying a private transfer station tipping fee that includes the operations, long-hauling and disposal;
3. Intangible and other impacts – certain risks associated with each alternative and emission impacts from vehicle operations.

Off-Route Costs

For the off-route costs, each Town and the County provided actual operating data and assumptions that include the following:

- Number of collection routes for residential and commercial wastes
- Frequency of dumping loaded vehicles
- End-of-route locations
- Crew size and types of vehicles
- Operating costs for vehicles and crew
- Approximate off-route driving speeds

In addition, some data were used based on industry standards, actual operating data and recent bids from other projects. Each jurisdiction reviewed draft analyses and commented on their accuracy. Changes were made where suggested.



Operating Costs

The costs of providing disposal services through a new County transfer station include the following:

- New County transfer station construction and operations
- Long-haul trucking of MSW from the transfer station to a regional landfill
- Landfill disposal charges

Cost Summary

A summary of this economic evaluation is presented in the following table. All cost values are expressed in terms of net present worth.

Cost Summary (20-Year Present Worth)	
	Cost
Option 1 – Direction Haul to Durham Transfer Station	\$62,174,000
Option 2 – Direct Haul to WI/WM Transfer Station	\$64,577,000
Option 3 – West 54 Transfer Station	\$54,981,000

Intangible and Other Impacts

Impacts that may be realized but are difficult to quantify were estimated including the following:

- A comparison of certain operational risks associated with different alternatives
- Additional emissions from vehicle operations over an above their current level

We are pleased to be able to present this material now and look forward to our discussion on March 31st when we can explain our approach more completely and explain details of our analyses.