



## LOCAL GOVERNMENT CASE STUDY:

# DAVIDSON COUNTY - MATERIAL RECOVERY FACILITY

Jurisdiction:

Davidson County

Best Management Practice:

Material Recovery Facility

Purpose:

Program expansion to increase recycling, maximize revenue and compete with neighboring counties.

Ordinance:

Under the county solid waste management ordinance, residents, businesses and industry are encouraged to participate in some form of waste reduction or recycling.

Contact:

Steve Swaim, [sswaim@co.davidson.nc.us](mailto:sswaim@co.davidson.nc.us)  
(336) 242-2856

## DESCRIPTION

Since July 1998, the Davidson County Solid Waste Management Division has operated a material recovery facility (MRF) under the same enterprise fund as the MSW landfill. The Davidson County MRF also services the cities of Lexington and Thomasville. The MRF has made it possible for Davidson County to expand its recycling collections, increase revenue and accommodate increased recycling efforts in the county. In addition to the aluminum, cardboard, glass, newspaper, auto batteries, tires and used motor oil handled previously, the MRF has also made it possible to increase recycling capabilities to handle #1 and #2 plastics, textiles, steel cans and residential mixed paper. In 2002, a new building was added to manage increases in cardboard collection and the addition of residential mixed paper.

## IMPLEMENTATION

Upon making the decision to expand the recycling program, Davidson County staff researched the available options for creating this new facility. After receiving several outside proposals for building the new facility, they decided to use county landfill staff to remodel an existing structure that previously served as a transfer station. The remodeling process also involved adding equipment such as a conveyer system for feeding and sorting materials and a horizontal baler for condensing the material and increasing outbound shipment weights. The total project, including equipment, cost approximately \$198,000 (about \$100,000 less than the lowest outside proposal). Davidson County, in partnership with the N.C. Department of Correction, also established an inmate labor program to help reduce overall operating

costs. The county has used inmate labor on a regular basis since operations began in 1998, and provides both the transportation and protective equipment for the inmates.

## RESULTS

Tonnages and revenue have both increased steadily since the Davidson County MRF opened in 1998. Fiscal year 1996/1997 provides a baseline estimate of tonnages handled before the creation of the MRF to expand the recycling program. The 2001/2002 total tonnages show an increase of 2,924 tons of recyclable materials handled by the county from the baseline estimate. The tipping fee for the local municipalities is \$10 per ton. At a \$1/day per inmate with 15-17 inmates per day for a five-day week, the county spends less than \$350 a month for inmate labor. On average, overall operating costs range from \$85,000 to \$100,000 per year, with revenues reaching around \$100,000 or more per year depending on market activity. Except for years where capital expenditures were necessary, the program has shown a small profit.

Year	Recycled Products (in tons)
FY 96/97 (baseline estimate)	1,002
FY 97/98	1,673
FY 98/99	2,718
FY 99/00	3,055
FY 00/01	3,401
FY 01/02	3,926

