

Tables A and B – Additional Discussion of Development and Use

Tables A and B were developed to use existing information, to the extent available, *to allocate regional status quo residential, commercial, and C/D waste disposal quantities* through the year 2030. Chapter 2 of the report explains how we calculated overall 2007 regional waste disposal and generation quantities based on landfill records of waste disposal and estimated overall regional diversion rates for municipal solid waste (MSW), commercial waste, and construction and demolition (C&D) waste.

The first three columns of Tables A and B simply break down the region by city, county where the city is located, and type of MSW management system currently in place in the city.

The next three columns present 2007 per capita disposal rates that were calculated in the following manner:

- We began with per capita generation rates from existing studies (Johnson County Solid Waste Management Committee, *Johnson County Solid Waste Management Plan, 2007 Edition*, December, 2007 and Franklin Associates, A Division of ERG, *Strategic Directions and Policy Recommendations for Solid Waste Management in the Bistate Kansas Metropolitan Region*, October, 2003) for urban, suburban, and rural areas in Missouri and Kansas.
- The per capita generation rates were adjusted to 2007 generation rates.
- The per capita generation rates were converted to disposal rates by multiplying by the factors shown in the attached Variables sheet under Missouri and Kansas “2007 Factors.”
- The factors for MSW (residential and commercial) include two components. The first component is the direct disposal conversion component and is equal to 1 minus the diversion percentage identified in the report for specific cities or recycling system offered. For example, the City of Kansas City, MO was shown to have a current diversion rate of approximately 37%. The direct disposal conversion component is $(1 - 0.37) 0.63$. The second component is an overall factor applied to all MSW per capita rates to adjust the total regional MSW 2007 disposal quantity calculated to be equal to the identified regional MSW disposal quantity of 1,620,000 tons. As shown on the attached Variables sheet under “Region,” the overall adjustment factor for MSW is 1.155.
- The factor for C&D waste includes only one component. The direct disposal conversion component is 0.768 or 1 minus the overall estimated C&D diversion rate of 23.2%. As shown in the Variables sheet under “Region” and “C&D Waste,” no overall adjustment factor is required.

The next column is published MARC population information for the cities and towns in the region.

For the years 2007 and on, the populations are based on MARC projections. Disposal quantities for each year are calculated by multiplying the 2007 per capita disposal rates discussed above by the annual growth rates in per capita rates shown on the Variables sheet under “2008-20030 Waste CAGR” and by the population for that year.

VARIABLES

Missouri

2007 Factors			
Residential	KCMO	0.630 * 1.155	0.728
	Platte City	0.675 * 1.155	0.780
	Curbside	0.705 * 1.155	0.814
	Drop-Off	0.740 * 1.155	0.855
Commercial	KCMO	0.690 * 1.155	0.797
	Others	0.700 * 1.155	0.809
C&D	All	0.768	0.768

2008 - 2030 Waste CAGR	
Residential	0.64%
Commercial	0.64%
C&D	0.42%

Kansas

2007 Factors			
Residential	Olathe	0.743 * 1.155	0.858
	Curbside	0.85 * 1.155	0.982
	Drop-off	0.920 * 1.155	1.063
Commercial	All	0.700 * 1.155	0.809
C&D	All	0.768	0.768

2008 - 2030 Waste CAGR	
Residential	0.64%
Commercial	0.64%
C&D	0.42%

Region

Commercial and Residential Waste			Before
Correction Factor			
	Calculated	Actual	Factor
Kansas	646,793	--	--
Missouri	755,261	--	--
Regional	1,402,054	1,620,000	1.155

C&D Waste			
	Calculated	Actual	Factor
Kansas	283,544	--	--
Missouri	391,089	--	--
Regional	674,633	675,000	1.00054

Commercial and Residential Waste			After
Correction Factor			
	Calculated	Actual	Factor
Kansas	747,046	--	--
Missouri	872,327	--	--
Regional	1,619,373	1,620,000	1.000