

Municipal Per Capita Water Use in Selected Cities

From the 2016 Region C Water Plan, Water Conservation and Reuse Recommendations:

Water usage data from the Texas Water Development Board (TWDB) was used to compare per capita water use for several cities in Texas. Beginning in 2007, TWDB published estimates of residential per capita use in addition to municipal per capita use. Twelve major cities in Texas were selected for a comparison of historical per capita municipal water use in various parts of the state: Amarillo, Austin, Beaumont, Brownsville, Corpus Christi, Dallas (DWU), El Paso, Fort Worth, Houston, Laredo, Lubbock, and San Antonio (SAWS). The five-year trailing average was selected to dampen annual changes in water use that occur due to external factors, such as variations in weather. Two cities had 2011 total per capita water use greater than 200 gallons per capita daily (gpcd): Dallas and Beaumont. Each of these cities showed a decrease in per capita water usage from 2001 to 2006 to 2011. Brownsville currently has the lowest municipal per capita water use (138 gpcd) based on 2011 five-year trailing averages.

It should be noted that gpcd comparisons can be misleading when comparing between cities. With this consideration, a general trend of reduced per capita demand can still be seen in cities throughout different regions in Texas. The residential per capita water use estimates better represent population-dependent demands. Based on the period from 2007 to 2011, residential water demands for the cities in this data set range from a low of 46 percent of municipal demand (Corpus Christi) to a high of 69 percent (Lubbock), with an average of 53 percent. Residential per capita water use ranges from 69 gpcd (Brownsville and Houston) to 128 gpcd (Beaumont). Of the 12 cities, the two Region C cities, Fort Worth and Dallas, have the fourth- and eighth-lowest 2007-2011 average residential per capita water use, respectively.

City	Municipal 5-Year Trailing Averages (gpcd)			Residential 5-Year Trailing Average (gpcd)
	2001	2006	2011	2011
Amarillo	185	227	185	106
Austin ^e	161	175	155	95
Beaumont ^f	212	209	208	128
Brownsville ^{d,e}	207	201	135	69
Corpus Christi ^a	181	158	169	78
DWU (Dallas) ^f	261	238	203	95
El Paso ^{b,c,e}	172	164	139	86
Fort Worth ^c	203	191	165	81
Houston ^{b,e}	155	160	143	69
Laredo ^{a,e}	185	175	147	85
Lubbock	185	180	140	97
San Antonio (SAWS)	144	145	140	86

^a No data available for 2006.

^b No data available for 2010.

^c Residential data not available for 2007.

^d Residential data not available for 2008.

^e Residential data not available for 2010.

^f Residential data not available for 2011.

^g Residential gpcd is the estimated water use for single family and multi-family residences, expressed on a per capita (population) basis. Difference systems may categorize and report residential water use differently.