



*City of Lawrence*  
UTILITIES

# SURVEY REPORT: RURAL WATER DISTRICTS 2008 WATER DEMAND

**2008 Rural Water District Survey**

**Table 1. Limits on meters and comparison of gallons per day usage.**

Rural Water District (meter limits for 2008)	Total Meters In Service 2008	Meters Installed (2008)	Meters on Waiting List	Meter Requests in 2008 (estimated)	Maximum Day Usage /Maximum Day per contract	Contract Date/Term
<b>RWD No. 1</b> (no limits)	379	3	0	0-2	220,000 gpd (180,000 gpd)	December 15, 1977/ 40 years
<b>RWD No. 2</b> (511 meters)	461	3	20	4	238,000 gpd/ (286,000 gpd)	June 8, 1999/ December 31, 2013
<b>RWD No. 4</b> (874 meters)	1060	20	0	15	425,000 gpd/* (300,000 gpd)	August 19, 1975/ 40 years
<b>RWD No. 5**</b> (no limits)	1130	5	63	Unknown***	384,000 gpd/ (526,000 gpd)	October 7, 2008/ December 31, 2040**
<b>RWD No. 6</b> (300 meters)	240	0	17	2	Unknown**** (202,500 gpd)	May 31, 1979/ 40 years
<b>RWD No. 13</b> (n/a)	935	7	0	10	398,076 gpd (8,000 gpd during emergency)*****	November 15, 1990/ Annually unless renewal of contract is agreed upon for the following year.
<b>TOTALS</b>	4205	38				

Maximum Day Water Demand

- \* RWD No. 4 receives water supply and meters from another source but did not indicate in their survey how many of the 1060 meters were from the City of Lawrence. In addition "maximum day" water demand was from all sources.
- \*\* Lawrence re-negotiated and signed a new contract with RWD No. 5, which includes no meter limits and option to purchase water in excess of their water allotment from the Kansas Water Office as needed.
- \*\*\* RWD No. 5 states that they have had numerous inquires but do not know how many will be purchased.
- \*\*\*\* RWD No. 6 responded that they do not have the technology to provide a maximum day water demand.
- \*\*\*\*\* RWD No. 13 reported total gallons per day. The gallons per day shall not exceed 200 gallons per minute and a total of 8,000 gallons during any emergency and a monthly maximum of 50,000 gallons for maintenance and testing purposes.

**Table 2. Usage from Utility Billing records and usage reported by Districts**

	<b>Annual Usage from Meter Records - 2008</b>	<b>Calculated Average Day Use for 2008</b>	<b>Rural Water District Reported Average Day</b>
<b>RWD No. 1</b>	39,645,500 gallons	119,055 gpd 333 days	108,000 gpd
<b>RWD No. 2</b>	31,070,800 gallons	86,068 gpd 361 days	91,890 gpd
<b>RWD No. 4</b>	52,924,100 gallons	146,604 gpd 361 days	246,000 gpd
<b>RWD No. 5</b>	63,207,200 gallons	175,089 gpd 361 days	197,000 gpd
<b>RWD No. 6</b>	16,817,000 gallons	50,501 gpd 333 days	54,800 gpd est.
<b>RWD No. 13</b>	35,700 gallons	107 gpd 333 days	336,344 gpd

The usage is gathered from Utility Billing records. Due to meters not read the same day every month, the total reading days may vary from 333 days to 361 days. Some districts have more than one meter or have meters with two dials. Therefore, the calculated average day use may be a combined total for those meters.

Attachment – 2008 Water Production Report

2008 Water Production Report  
Lawrence, Kansas

Date	Kaw		% Loss	Clinton		% Loss	Total		% Total Loss
	Raw Pumped	Finished Pumped		Raw Pumped	Finished Pumped		Raw Pumped	Finished Pumped	
Jan-08	140,404,000	132,241,000	5.81%	152,114,000	130,368,000	14.30%	292,518,000	262,609,000	10.22%
Feb-08	254,562,000	245,585,000	3.53%	0	1,841,000	#DIV/0!	254,562,000	247,426,000	2.80%
Mar-08	174,350,000	170,317,000	2.31%	111,742,000	97,711,000	12.56%	286,092,000	268,028,000	6.31%
Apr-08	126,897,000	124,639,000	1.78%	166,582,000	152,908,000	8.21%	293,479,000	277,547,000	5.43%
May-08	145,657,000	143,042,000	1.80%	188,343,000	175,101,000	7.03%	334,000,000	318,143,000	4.75%
Jun-08	149,209,000	140,861,000	5.59%	195,572,000	177,448,000	9.27%	344,781,000	318,309,000	7.68%
Jul-08	293,644,572	287,554,000	2.07%	198,209,000	180,589,000	8.89%	491,853,572	468,143,000	4.82%
Aug-08	282,816,000	271,145,000	4.13%	225,210,000	203,444,000	9.66%	508,026,000	474,589,000	6.58%
Sep-08	179,018,000	169,885,000	5.10%	204,357,000	180,501,000	11.67%	383,375,000	350,386,000	8.60%
Oct-08	154,807,000	141,442,000	8.63%	195,596,000	167,663,000	14.28%	350,403,000	309,105,000	11.79%
Nov-08	110,704,000	99,561,000	10.07%	173,899,000	149,185,000	14.21%	284,603,000	248,746,000	12.60%
Dec-08	116,791,000	106,627,000	8.70%	162,110,000	135,878,000	16.18%	278,901,000	242,505,000	13.05%
Total	2,128,859,572	2,032,899,000	4.51%	1,973,734,000	1,752,637,000	11.20%	4,102,593,572	3,785,536,000	7.73%

Yearly Comparisons

Date	2008 Total		% Loss	2005 Total		% Loss	Cumulative		% Total Loss
	Raw Pumped	Finished Pumped		Raw Pumped	Finished Pumped		Raw Pumped	Finished Pumped	
Jan-08	262,609,000	250,079,000	4.57%	265,148,000	262,609,000	1.13%	262,609,000	250,079,000	4.57%
Feb-08	247,426,000	246,321,000	0.44%	247,699,000	510,035,000	20.59%	496,400,000	519,153,000	3.24%
Mar-08	268,028,000	258,684,000	3.82%	273,842,000	778,063,000	27.70%	755,084,000	788,013,000	3.82%
Apr-08	277,547,000	268,712,000	3.17%	333,092,000	1,055,610,000	23.20%	1,023,796,000	1,128,637,000	11.11%
May-08	318,143,000	313,742,000	1.38%	430,039,000	1,373,753,000	24.61%	1,337,538,000	1,500,354,000	11.54%
Jun-08	318,309,000	360,831,000	12.88%	410,885,000	1,692,062,000	15.92%	1,698,369,000	2,047,712,000	16.92%
Jul-08	468,143,000	476,606,000	1.87%	510,722,000	2,160,205,000	14.30%	2,174,975,000	2,611,323,000	17.41%
Aug-08	474,589,000	606,074,000	21.62%	462,173,000	2,634,794,000	19.86%	2,781,049,000	3,135,407,000	12.93%
Sep-08	350,386,000	473,312,000	26.80%	391,118,000	2,985,180,000	22.75%	3,254,361,000	3,561,486,000	9.33%
Oct-08	309,105,000	340,180,000	9.70%	353,182,000	3,294,285,000	18.21%	3,594,541,000	3,925,607,000	10.00%
Nov-08	248,746,000	288,111,000	15.61%	288,178,000	3,543,031,000	18.03%	3,882,652,000	4,196,910,000	7.80%
Dec-08	242,505,000	267,476,000	10.30%	274,365,000	3,785,536,000	1.13%	4,150,128,000	4,446,887,000	6.74%
Total	3,785,536,000	4,150,128,000	8.71%	4,240,443,000	3,785,536,000	11.20%	4,150,128,000	4,446,887,000	7.73%