



Across-The-Board Water Reductions Make No Sense for Public Water Systems

Several recent proposals by Regional Advisory Committees (RACs), formerly the basin advisory committees as were established under the Kansas Water Plan, have shown a desire to make across-the-board reductions of water use by municipal water users in parts of Kansas. While conservation, good stewardship or sustainability goals sound appropriate and proper, the reality of requiring less water use across-the-board by cities and rural water districts is unfair, uneconomical, anti-growth – and it is unnecessary.

Municipal water users (cities, rural water districts, mobile home parks, etc.) already have water conservation measures in place. Guidelines to develop state-approved water conservation plans have been in place since 1986, and have been updated twice since then. Nearly every public water supply system in Kansas has adopted a state-approved water conservation plan.

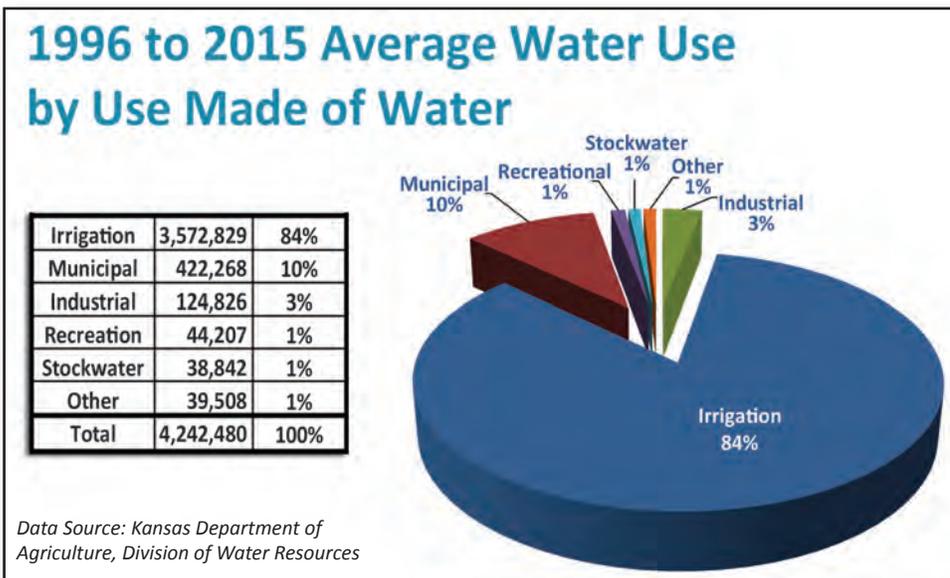
Water use by cities and rural water districts, measured in gallons per capita per day (GPCD), have been measured since 1987. Kansas public water supply

systems are concerned when they find themselves above the regional GPCD average and in most cases strive to reduce their higher than average use on their own or with help from consultants.

Water systems are not "wasting" water!

Thanks to funding through the State Water Plan and Clean Drinking Water Fee, as well as USDA Rural Development Circuit Rider programs, the Kansas Rural Water Association (KRWA) has conducted 1,660 water loss surveys since June 1991, locating and helping correct water loss. Graphic 2 shows the results of those efforts. The Kansas Water Office has targeted assistance to those systems that have 30 percent or higher unaccounted for water.

Forcing public water systems to "use" less water by mandating higher costs to their customers or through some other regressive measures may drive more individuals to drill domestic wells (where that is possible) and/or use water from domestic wells for all of their water needs. The quantity and quality of that "unaccounted use" would be unregulated and would not reduce actual use. And it could have negative health impacts on those



Data Source: Kansas Department of Agriculture, Division of Water Resources

Graphic 1

users shifting to private, domestic wells that do not meet drinking water quality standards.

A significant amount of water “used” by municipal water systems that have surface water sources, especially in eastern Kansas, just passes through the system before being treated and returned to the river. Water “used” for bathing, washing, cooking, etc. is disposed in the wastewater collection system where it ultimately is treated and returned to the source, often at a higher quality than the water in the receiving stream. Probably less than half of the water used in these types of water systems is used in a way that is not returned to the river.

Mandated reduction in water use in many eastern Kansas public water supplies would only result in the water flowing to Missouri or Oklahoma along with the river flows. Also mandated reduction in water use in the Ogallala Aquifer would only result in an insignificant effect on the Aquifer. Residential use is not the reason that the Ogallala Aquifer is being depleted. For further reading on this topic, see the article "Water Use Reduction: Unnecessary and Costly" by Pat McCool on pp. 16-20, July 2015, *The Kansas Lifeline*, Web link: <http://krwa.net/portals/krwa/lifeline/1507/016.pdf>.

Reduction of Gallons Per Capita Per Day

Also many public water systems have reduced their gallons per capita per day (GPCD) significantly (from five to twenty percent) in the last 16 years due to: 1) higher water rates; 2) less residential irrigation; 3) water saving plumbing fixtures and appliances; 4) conscious efforts by individual citizens.

According to the Kansas Department of Agriculture, irrigation accounts for approximately 85 percent of the water consumed in Kansas. Municipal water use accounts for approximately ten percent. KRWA staff doubt that this ten percent takes into account water returned directly to the original source.

History of Water Loss Surveys conducted, July 1, 1991 - June 30, 2016				
	FY 92	FY 93	FY 94	FY 95
Number of Surveys	64	55	38	26
GPM detected	530.25	285.25	457.5	137.5
GPY detected	278,699,400	149,927,400	240,462,000	72,270,000
\$ Cost Savings	\$280,981	\$270,011	\$340,610	\$92,176
	FY96	FY 97	FY 98	FY 99
Number of Surveys	23	29	25	54
GPM detected	268.25	238	151.75	632.75
GPY detected	140,992,200	125,092,800	79,759,800	332,573,400
\$ Cost Savings	\$180,985	\$192,555	\$150,771	\$572,037
	FY 00	FY 01	FY 02	FY03
Number of Surveys	50	49	49	38
GPM detected	393.25	448.75	454	275
GPY detected	206,692,200	235,863,000	238,622,400	144,540,000
\$ Cost Savings	\$339,137	\$607,989	\$423,858	\$225,522
	FY 04	FY 05	FY 06	FY 07
Number of Surveys	40	44	40	53
GPM detected	246	256.5	261	463
GPY detected	129,297,600	134,816,400	137,181,600	243,352,800
\$ Cost Savings	\$421,953	\$278,814	\$253,846	\$650,564
	FY08	FY09	FY10	FY11
Number of Surveys	65	87	136	129
GPM detected	674	1009.5	1121.5	654.25
GPY detected	354,254,400	530,593,200	589,460,400	343,873,800
\$ Cost Savings	\$888,549	\$1,497,122	\$1,405,972	\$863,177
	FY12	FY13	FY14	FY 15
Number of Surveys	128	63	111	136
GPM detected	653	612	386.5	496.75
GPY detected	343,216,800	321,667,200	203,144,400	261,091,800
\$ Cost Savings	\$757,802	\$705,749	\$595,707	\$694,819
	FY 16	Total Surveys July 1, 1991 - June 30, 2016		
Number of Surveys	128	1,660		
GPM detected	578	11,684		
GPY detected	303,796,800	6,141,241,800		
\$ Cost Savings	\$982,945	\$13,673,650		

Graphic 2

Nor does it take into account that most of this water use is from sustainable sources. In reality the ten percent for municipal use is likely somewhat

In reality the ten percent for municipal use is likely somewhat overstated.

overstated. See Graphic 1 for a breakdown of general water use by category. The Division of Water Resources, Kansas Board of Agriculture, also tracks water used for contamination remediation and hydraulic dredging. These amounts are not shown in Graphic 2 but represent as much use as recreation and stock watering. Also, note that remediation water is groundwater taken from the aquifer and not returned to the groundwater (“consumptive” use like municipal and irrigation groundwater use) and hydraulic dredging is not good quality water and is not returned to the lake or downstream (“consumptive” use).

Spending additional time and money to squeeze more water “savings” out of Kansas public water supply systems is misguided and shortsighted. No municipal water systems intentionally waste water. Most are actively trying to be good stewards and to conserve their important water sources. Wasted water costs money! An unfounded declaration to conserve an additional ten percent, or even 25 percent, of the municipal water “use” would have very little significant effect on the overall water supply in Kansas.

A final point. If there are laws, regulations, or mandates to reduce water, will the state of Kansas be enforcing the mandates on public water systems or will the state be enforcing the mandates on individual, residential customers?

Elmer Ronnebaum is KRWA General Manager; he has been employed by KRWA since 1983. He served seven years on the KRWA board of directors prior to that. He also helped develop a large



RWD and served for fourteen years on a water district board of directors.