

AWU Water Loss Calculation

WATER UTILITY GENERAL INFORMATION

Water Utility Name:	Austin Water Utility	Austin Water Utility	Austin Water Utility	Austin Water Utility	Austin Water Utility	Austin Water Utility	Austin Water Utility
Reporting Period:	October 1, 2007 to September 30, 2008	October 1, 2008 to September 30, 2009	October 1, 2009 to September 30, 2010	October 1, 2010 to September 30, 2011	October 1, 2011 to September 30, 2012	October 1, 2012 to September 30, 2013	January 1, 2014 to December 31, 2014
Retail Population	799,844	828,628	842,055	855,699	855,869	874406	896,363

SYSTEM INPUT VOLUME

Water Volume from own Sources	53,070,779,000	53,328,130,000	43,786,936,000	52,834,738,000	47,137,782,000	45,927,345,000	44,589,633,317	gals
Production Meter Accuracy (%)	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	100.00%	pct.
Corrected System Input Volume	54,153,856,122	54,416,459,184	44,680,546,939	53,912,997,959	48,099,777,551	46,864,637,755	44,589,633,317	gals
Wholesale Import Volumes	0	0	0	0	71,845,000	88,098,000	1,876,000	
Wholesale Export Volumes							2,579,530,487	
Total System Input Volume	54,153,856,122	54,416,459,184	44,680,546,939	53,912,997,959	48,171,622,551	46,952,735,755	42,011,978,830	

AUTHORIZED CONSUMPTION

Billed Metered	46,992,258,000	86.78%	48,184,480,800	88.55%	39,367,872,000	88.11%	48,165,313,300	89.34%	43,970,260,087	91.28%	41,793,546,138	89.01%	36,171,058,100	86.10%	gals
Billed Unmetered	248,297,495	0.46%	143,796,498	0.26%	311,433,912	0.70%	187,897,505	0.35%	3,310,877	0.01%	4,265,828	0.01%	3,339,880	0.01%	gals
Unbilled Metered (amount used at AWU buildings/facilities)	174,946,000	0.32%	70,089,600	0.13%	90,416,900	0.20%	70,478,800	0.13%	55,684,700	0.12%	56,241,600	0.12%	52,411,165	0.12%	gals
Unbilled Unmetered (amount used by other city Departments)	120,495,964	0.22%	135,436,830	0.25%	191,471,429	0.43%	94,727,346	0.18%	73,059,820	0.15%	69,148,969	0.15%	148,700,040	0.35%	gals
Total Authorized Consumption	47,535,997,459	87.78%	48,533,803,728	89.19%	39,961,194,241	89.44%	48,518,416,951	89.99%	44,102,315,484	91.55%	41,923,202,535	89.29%	36,375,509,185	86.58%	gals

Water Losses															
(System input volume minus authorized consumption)	6,617,858,663	12.22%	5,882,655,456	10.81%	4,719,352,698	10.56%	5,394,581,008	10.01%	4,069,307,067	8.45%	5,029,533,220	10.71%	5,636,469,645	13.42%	gals
Total Apparent Losses	2,013,538,512	3.72%	1,212,885,736	2.23%	1,007,978,198	2.26%	1,062,369,523	1.97%	1,063,431,734	2.21%	1,006,723,469	2.14%	874,352,211	2.08%	gals
Total Real Losses	4,604,320,151	8.50%	4,669,769,719	8.58%	3,711,374,500	8.31%	4,332,211,485	8.04%	3,005,875,333	6.24%	4,022,809,751	8.57%	4,762,117,435	11.34%	gals
Unavoidable Real Losses, in Million Gallons per Day	3,866,612	2.61%	3,935,866	2.64%	3,967,109	3.24%	3,982,260	2.70%	4,007,127	3.04%	4,054,298	3.15%	4,116,792	3.58%	MGD

Infrastructure Leakage Index (Equals real loss volume (div by 365) divided by unavoidable real losses)	3.262		3.251		2.563		2.980		2.055		2.718		3.169
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Retail Price of Water	\$3.38	\$3.38	\$3.91	\$4.12	\$4.40	\$4.53	\$5.60	Cost per 1,000 gal
Cost of Apparent Losses	\$6,805,760	\$4,099,554	\$3,941,195	\$4,376,962	\$4,667,768	\$4,560,457	\$4,896,372	
Variable Production Cost of Water*	\$0.35	\$0.38	\$0.34	\$0.33	\$0.39	\$0.41	\$0.40	Cost per 1,000 gal
Cost of Real Losses	\$1,611,512	\$1,774,512	\$1,265,579	\$1,429,630	\$1,173,296	\$1,662,145	\$1,914,371	
Total Cost Impact of Apparent and Real Losses	\$8,417,272	\$5,874,066	\$5,206,773	\$5,806,592	\$5,841,063	\$6,222,602	\$6,810,744	

SAVINGS FROM REDUCING ILI FROM FY08 LEVEL

Real Water Loss at FY08 ILI	4,604,320,151	4,686,785,955	4,723,989,916	4,742,031,965	4,771,643,318	4,827,814,033	4,902,231,210	Cumulative savings
Actual real water loss	4,604,320,151	4,669,769,719	3,711,374,500	4,332,211,485	3,005,875,333	4,022,809,751	4,762,117,435	
Savings in gal	0	17,016,236	1,012,615,416	409,820,480	1,765,767,985	805,004,282	140,113,775	
Savings in AF	0	52.22	3,107.60	1,257.69	5,418.94	2,470.47	429.99	
Savings in \$	0	\$6,466.17	\$345,301.86	\$135,240.76	\$688,649.51	\$330,051.76	\$56,325.74	\$1,175,658.30

TWDB reliability assessment score	65	65	66	69	69	67.5	70
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(measure of the reliability of the data used for the audit. TWDB recommends a score of 70 or greater for mature water loss control programs.)

Water loss GPCD	19.45	15.35	17.27	13.03	15.76	17.23	5 year average	16.17
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