



Water Supply Report
Joseph DeMorett

November 25, 2008

Status of Seasonal Wells

UW #8: Out of service

UW #10: Out of service

UW #29: Out of service

UW #17: Shut down and taken out of service on October 18th.

UW #6: Shut down and taken out of service on October 21st.

UW #28: Shut down and taken out of service on October 31st.

UW #27, normally a seasonal well, remains in service. Water from this well is currently needed as UW #18 is down for rehabilitation.

UW #18 Well Rehabilitation

The reservoir at UW #18 was drained and the unit well taken out of service on October 31 for scheduled rehabilitation. Staff subsequently pulled the column and pump from the hole. The motor and pump were sent out for inspection and possible rebuilds. Staff is in the process of assessing the shaft pieces, bearings, and column piping for wear. The hole was televised by Water Well Solutions, Inc. on Thursday, November 13th. The borehole appeared to be in relatively good condition. A review of well data however indicates that drawdown levels have increased and specific capacities decreased over the last 10 years. Staff is reviewing possible rehabilitation methods/techniques and will determine which might be applicable here (air bursting, acidization, etc.)

120 – Sphere Repair

The 120 - sphere was drained and taken off line on Monday, November 10th to repair a leak. Lane Tank Company conducted the repairs on the following day and the sphere was refilled and disinfected the next. It was placed back online Saturday, November 15th after receiving two consecutive “safe” bacteria samples. There were no reported pressure problems during the time it was down. (Valves had been opened to allow water movement from Zone 9 to Zone 7.)

Solar PV Systems

City engineering has approached the Water Utility with a proposition to install solar photovoltaic (PV) systems on the office and vehicle storage buildings at 119 E. Olin Avenue. Preliminary plans include placing an array of panels capable of producing 10 kW on the south facing roofs of both buildings. There would be no costs to the Water Utility, as funding for these systems would come from the City’s Landfill Utility. (Electricity is used to run the vacuum extraction blowers 24/7 at the nearby Olin Landfill.) All of the electricity generated would be sold by the Landfill Utility to MG&E at a set rate. It is anticipated that the systems would pay for themselves in approximately 20 years. A solar PV system would also be placed on the roof of the adjacent Waste Transfer Station. The Landfill Utility currently has PV systems at two of its landfill sites (Greentree Hills & Demetral Field.)

UW #29 Sentinel Well

Three bids were received for the Public Works Contract, "Professional Drilling Services Associated with the Installation of a Groundwater Monitoring (Sentry) Well – Unit Well #29/Sycamore Landfill." The contract was awarded to Sam's Well Drilling, Inc., the low bidder at \$47,325. The Utility is in the process of purchasing the internal well equipment and the necessary installation services from FLUTE, Inc.

Nakoosa Trail Property

At the request of Porchlight Inc., the Water Utility has retained the services of Midwest Envirionics, Inc. to conduct a Phase I and Phase II Environmental Site Assessment (ESA) of its property located at 4002 Nakoosa Trail. The final report will include a summary and the results of the subsurface investigation recently performed there. Cost for these services is estimated to be \$3,100.

New Water Works Maintenance Worker

Eric Cooper has been selected to fill the Water Works Maintenance Worker position vacated by Tom Arneson when he was promoted to Operator II. Eric is scheduled to join the Water Supply Section on November 30th and will perform Rounds. He is currently working at the Operations Center as a Public Works Maintenance Worker 2.

SCADA Update

Plans to convert sites UW #26, UW #28, and UW #16 over to the new system are progressing. We have purchased most of the hardware necessary for the conversion process and our two Electronics Maintenance Technicians (EMTs) have begun to build the systems in house. We are hopeful that L.W. Allen will begin work on the software for these sites soon. Bob Jenkins, one of the Utility's EMTs, is scheduled to begin training on the new software – Wonderware.

2008 Unit Well Pumpage by Month
(1000 gallons)

Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov *	Dec	Totals
6	0	0	0	0	43,980	28,190	55,230	59,184	49,730	39,480	0	0	275,794
7	36,377	30,542	23,390	17,323	34,317	22,907	25,812	19,378	11,042	15,424	10,292	0	246,804
8	0	0	0	0	0	1,426	26,014	57,912	28,324	0	0	0	113,676
9	49,221	44,902	42,930	41,932	45,194	44,897	53,060	56,340	48,541	36,299	23,400	0	486,716
10	0	0	0	0	0	0	0	0	474	0	0	0	474
11	70,840	67,380	72,526	74,140	76,710	74,146	75,390	75,950	73,030	67,450	33,111	0	760,673
12	54,962	48,242	49,073	45,467	40,920	47,050	57,560	50,092	48,770	47,170	27,330	0	516,636
13	64,410	61,492	69,357	71,340	67,060	66,960	72,490	75,720	71,138	67,530	34,163	0	721,660
14	69,337	65,765	71,260	67,760	53,470	67,140	71,811	70,434	67,215	68,700	38,190	0	711,082
15	79,030	73,901	79,170	68,490	59,930	77,129	79,940	79,730	76,330	76,975	43,790	0	794,415
16	36,889	40,925	58,570	69,510	45,450	70,260	54,788	50,271	24,450	13,260	6,770	0	471,143
17	0	0	0	842	31,840	46,078	63,760	63,535	63,100	35,450	0	0	304,605
18	13,008	16,242	15,950	18,180	18,210	17,180	16,580	35,440	15,740	12,930	307	0	179,767
19	27,139	42,921	41,957	45,420	35,440	26,670	34,550	30,220	29,900	37,670	34,640	0	386,527
20	50,604	42,046	48,210	41,060	45,950	45,160	57,388	57,679	44,872	42,786	21,130	0	496,885
23	33,289	28,165	29,449	32,346	33,148	31,060	32,932	31,649	29,662	20,436	10,662	0	312,798
24	44,780	41,410	42,351	50,020	45,000	35,230	37,700	36,300	27,880	45,400	29,900	0	435,971
25	61,510	64,170	69,618	67,380	70,310	66,811	72,820	75,430	63,950	64,171	27,392	0	703,562
26	48,383	25,332	29,070	330	63,050	6,750	73,177	102,580	99,521	106,560	58,700	0	613,453
27	0	0	0	0	0	13,750	12,380	25,937	17,900	21,989	28,251	0	120,207
28	39,930	48,690	36,590	47,900	30,960	62,960	52,840	42,960	23,787	9,643	0	0	396,260
29	0	0	0	0	0	1,211	910	983	410	0	0	0	3,514
30	69,641	67,860	72,947	72,145	65,996	66,340	66,510	41,740	64,994	66,387	40,880	0	695,440
Total	849,350	809,985	852,418	830,413	906,935	918,094	1,092,732	1,138,481	979,876	895,710	468,908	0	9,742,902

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* As of 11/17/2008

30+ Day Pumpage Report (1000 gallons)

Water Supply

Date	2008				2007				10 Year Ave Percent Difference
	Pumpage	Year to Date	Average for Year	Temperature	Precipitation	Average Last Year	Percent Difference	5 Year Ave Percent Difference	
			High Low Avg	Day Month Year					
10/15	31,305	8,829,582	55 39 47	0.3 1.6 38.7		32,224	-4.6%	-5.3%	-7.3%
10/16	26,542	8,856,124	56 34 45	0.0 1.6 38.7		32,211	-4.6%	-5.4%	-7.3%
10/17	31,761	8,887,885	52 31 42	0.0 1.6 38.7		32,225	-4.5%	-5.3%	-7.3%
10/18	26,279	8,914,164	57 32 45	0.0 1.6 38.7		32,209	-4.6%	-5.4%	-7.3%
10/19	28,700	8,942,864	62 42 52	0.0 1.6 38.7		32,199	-4.6%	-5.4%	-7.3%
10/20	27,376	8,970,240	60 47 54	0.0 1.6 38.8		32,189	-4.6%	-5.4%	-7.3%
10/21	27,549	8,997,789	53 29 41	0.0 1.6 38.8		32,192	-4.6%	-5.4%	-7.3%
10/22	27,130	9,024,919	51 33 42	0.0 1.6 38.8		32,192	-4.7%	-5.4%	-7.3%
10/23	35,760	9,060,679	57 37 47	0.2 1.9 39.0		32,179	-4.6%	-5.3%	-7.3%
10/24	25,002	9,085,681	51 48 50	0.3 2.2 39.3		32,167	-4.6%	-5.4%	-7.3%
10/25	29,381	9,115,062	52 42 47	0.0 2.2 39.3		32,168	-4.6%	-5.3%	-7.3%
10/26	23,153	9,138,215	51 36 44	0.0 2.2 39.3		32,151	-4.7%	-5.4%	-7.3%
10/27	29,519	9,167,734	42 35 39	0.0 2.2 39.3		32,133	-4.7%	-5.4%	-7.3%
10/28	25,525	9,193,259	46 28 37	0.0 2.2 39.3		32,117	-4.7%	-5.4%	-7.3%
10/29	29,587	9,222,846	51 25 38	0.0 2.2 39.3		32,115	-4.6%	-5.4%	-7.3%
10/30	24,987	9,247,833	64 31 48	0.0 2.2 39.3		32,113	-4.7%	-5.4%	-7.4%
10/31	26,161	9,273,994	70 44 57	0.0 2.2 39.3		32,092	-4.7%	-5.4%	-7.4%
11/1	29,247	9,303,241	59 37 48	0.0 0.0 39.3		32,077	-4.7%	-5.4%	-7.4%
11/2	29,372	9,332,613	64 38 51	0.0 0.0 39.3		32,068	-4.6%	-5.4%	-7.3%
11/3	27,160	9,359,773	72 52 62	0.0 0.0 39.3		32,051	-4.6%	-5.4%	-7.3%
11/4	26,666	9,386,439	72 56 64	0.0 0.0 39.3		32,041	-4.6%	-5.4%	-7.4%
11/5	30,743	9,417,182	71 50 61	0.0 0.0 39.3		32,044	-4.6%	-5.4%	-7.3%
11/6	27,000	9,444,182	61 48 55	0.2 0.2 39.6		32,026	-4.6%	-5.4%	-7.3%
11/7	25,690	9,469,872	49 34 42	0.1 0.3 39.7		32,011	-4.6%	-5.4%	-7.3%
11/8	31,972	9,501,844	40 34 37	0.0 0.3 39.7		32,004	-4.6%	-5.3%	-7.3%
11/9	23,374	9,525,218	34 27 31	0.0 0.4 39.7		31,992	-4.6%	-5.4%	-7.3%
11/10	24,520	9,549,738	33 19 26	0.0 0.4 39.7		31,967	-4.7%	-5.4%	-7.3%
11/11	29,782	9,579,520	38 18 28	0.2 0.5 39.8		31,963	-4.6%	-5.4%	-7.3%
11/12	25,868	9,605,388	46 38 42	0.2 0.7 40.0		31,955	-4.6%	-5.4%	-7.3%
11/13	27,012	9,632,400	53 41 47	0.3 1.1 40.4		31,944	-4.6%	-5.4%	-7.3%
11/14	30,308	9,662,708	48 39 44	0.0 1.1 40.4		31,927	-4.6%	-5.4%	-7.3%
11/15	23,359	9,686,067	39 32 36	0.0 1.1 40.4		31,925	-4.6%	-5.4%	-7.3%
11/16	29,200	9,715,267	33 27 30	0.0 1.1 40.4		31,910	-4.6%	-5.4%	-7.3%
11/17	27,635	9,742,902	33 25 29	0.0 1.1 40.4		31,890	-4.6%	-5.4%	-7.3%

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