

MAYOR  
PW092711-06

*RAPID CITY WATER DIVISION  
PRODUCTION GROUP REPORT*

MAYOR'S OFFICE

SEP 10 2011

**AUGUST 2011**

RECEIVED



*BY TIM WEBER*

*WATER PRODUCTION SUPERVISOR*

2011 TOTAL WATER PRODUCTION BY THE MONTH FOR THE YEAR

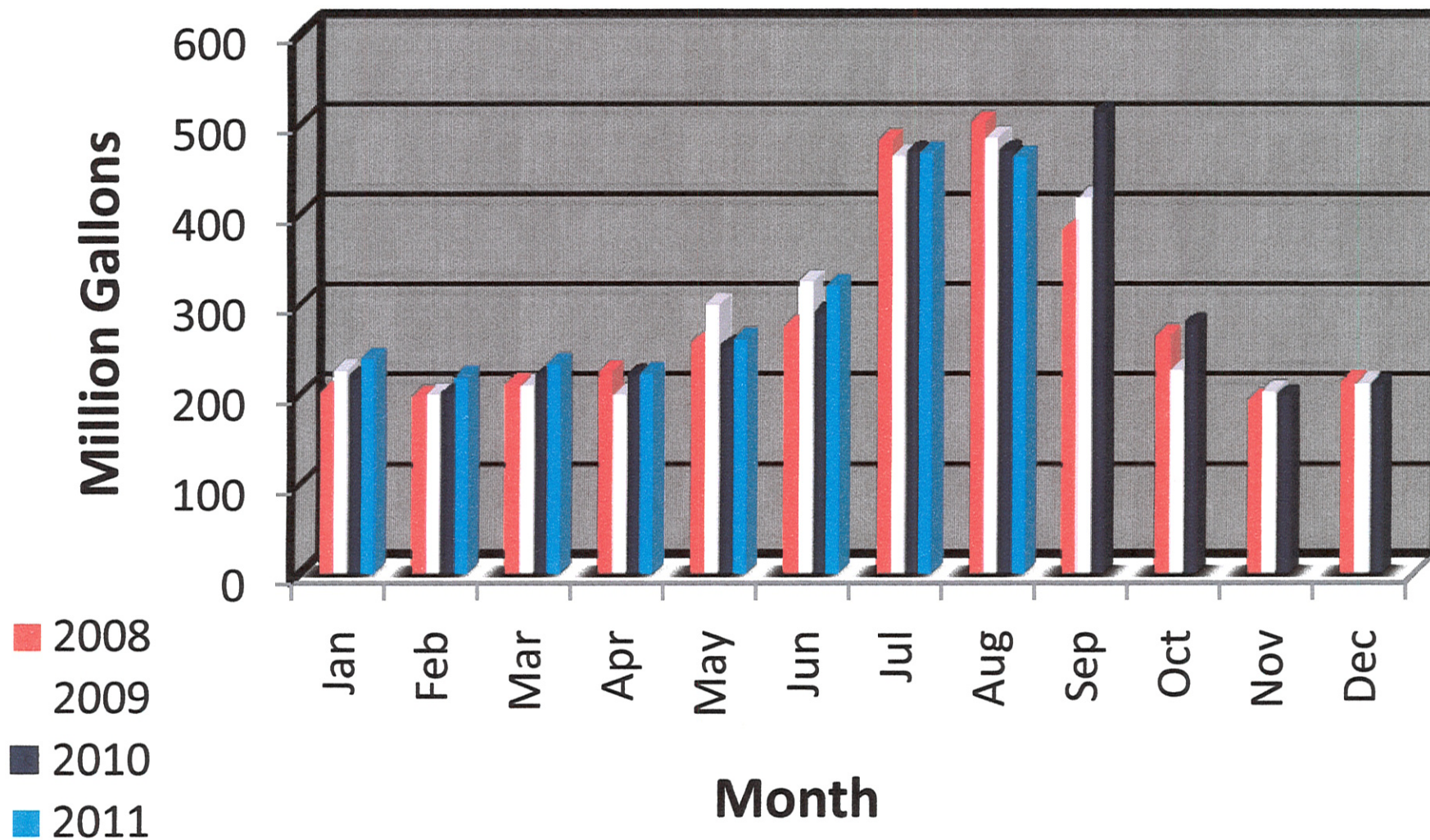
2011	GIRL SCOUTS	MEADOW BROOK	WELL #1	WELL #4	WELL #5	WELL #6	WELL #8	WELL #9	WELL #10	WELL #11	WELL #12	WT. PLANT TOTALS	TOTAL GALS.
JANUARY	0	0	0	13,272,000	56,892,000	3,288,000	0	90,289,000	56,605,000	0	18,847,000	0	239,193,000
FEBRUARY	0	0	0	11,142,000	53,053,000	18,441,000	0	74,097,000	48,292,000	0	14,081,000	0	219,106,000
MARCH	0	0	0	11,906,000	62,608,000	23,453,000	0	94,403,000	25,034,000	0	15,506,000	0	232,910,000
APRIL	0	0	0	1,217,000	56,161,000	16,254,000	0	92,056,000	38,008,000	0	18,684,000	0	222,380,000
MAY	0	0	0	0	65,470,000	18,501,000	2,377,000	99,214,000	52,972,000	2,000	22,722,000	0	261,258,000
JUNE	18,521,000	0	0	0	63,177,000	28,987,000	21,051,000	106,989,000	50,337,000	728,000	30,736,000	0	320,526,000
JULY	47,189,000	30,140,300	0	0	60,707,000	31,852,000	0	90,935,000	49,363,000	13,394,000	45,496,000	98,820,000	467,896,300
AUGUST	1,730,000	299,800	0	0	39,978,000	31,084,000	0	21,634,000	49,037,000	24,046,000	38,490,000	257,692,000	463,990,800
SEPTEMBER	0	0	0	0	0	0	0	0	0	0	0	0	0
OCTOBER	0	0	0	0	0	0	0	0	0	0	0	0	0
NOVEMBER	0	0	0	0	0	0	0	0	0	0	0	0	0
DECEMBER	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	67,440,000	30,440,100	0	37,537,000	458,046,000	171,860,000	23,428,000	669,617,000	369,648,000	38,170,000	204,562,000	356,512,000	2,427,260,100

IRRIGATION SEASON TOTALS MAY 1 - SEPT. 30

67,440,000	30,440,100	0	0	229,332,000	110,424,000	23,428,000	318,772,000	201,709,000	38,170,000	137,444,000	356,512,000	1,513,671,100
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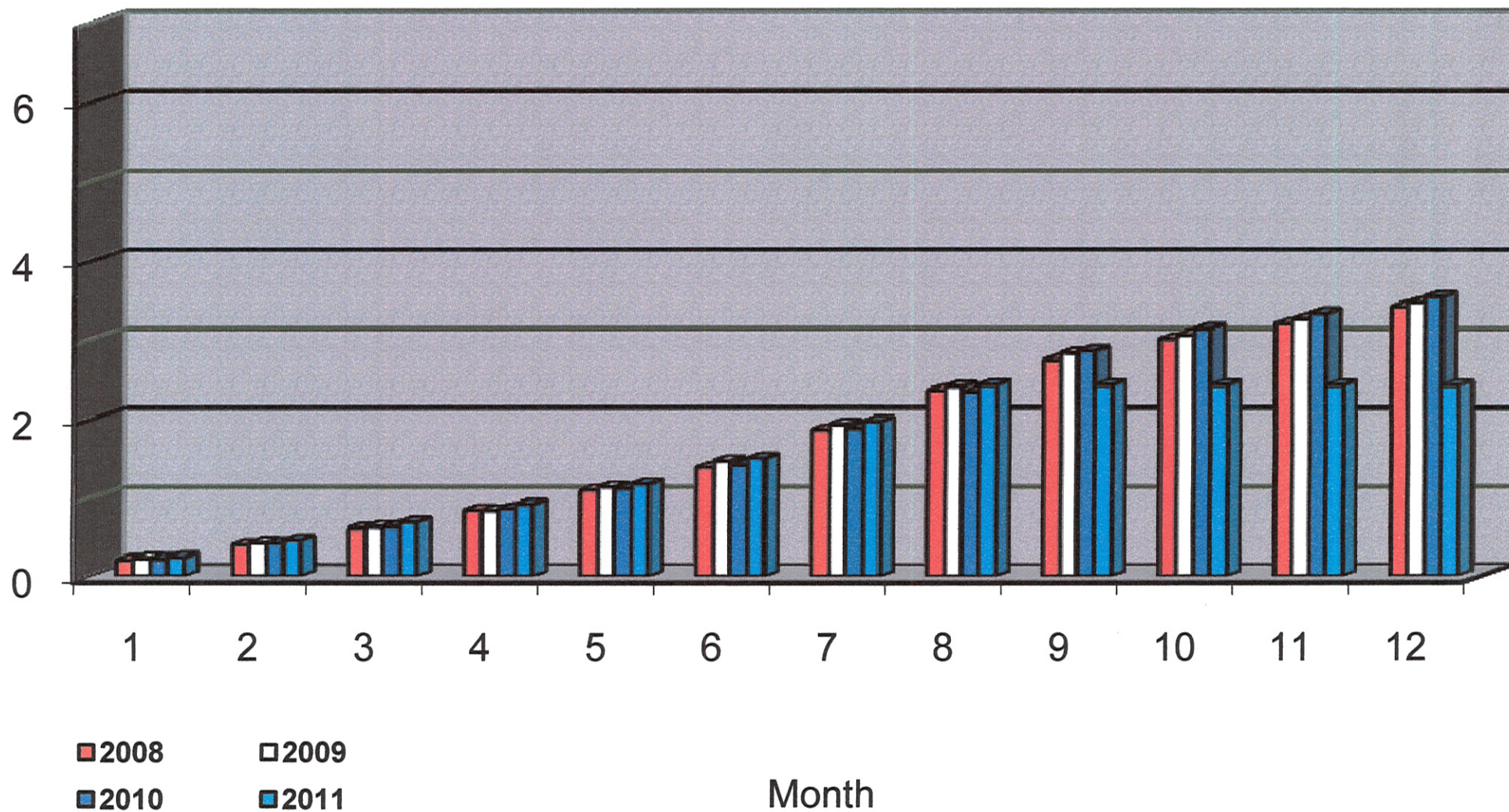


## Rapid City potable water comparison



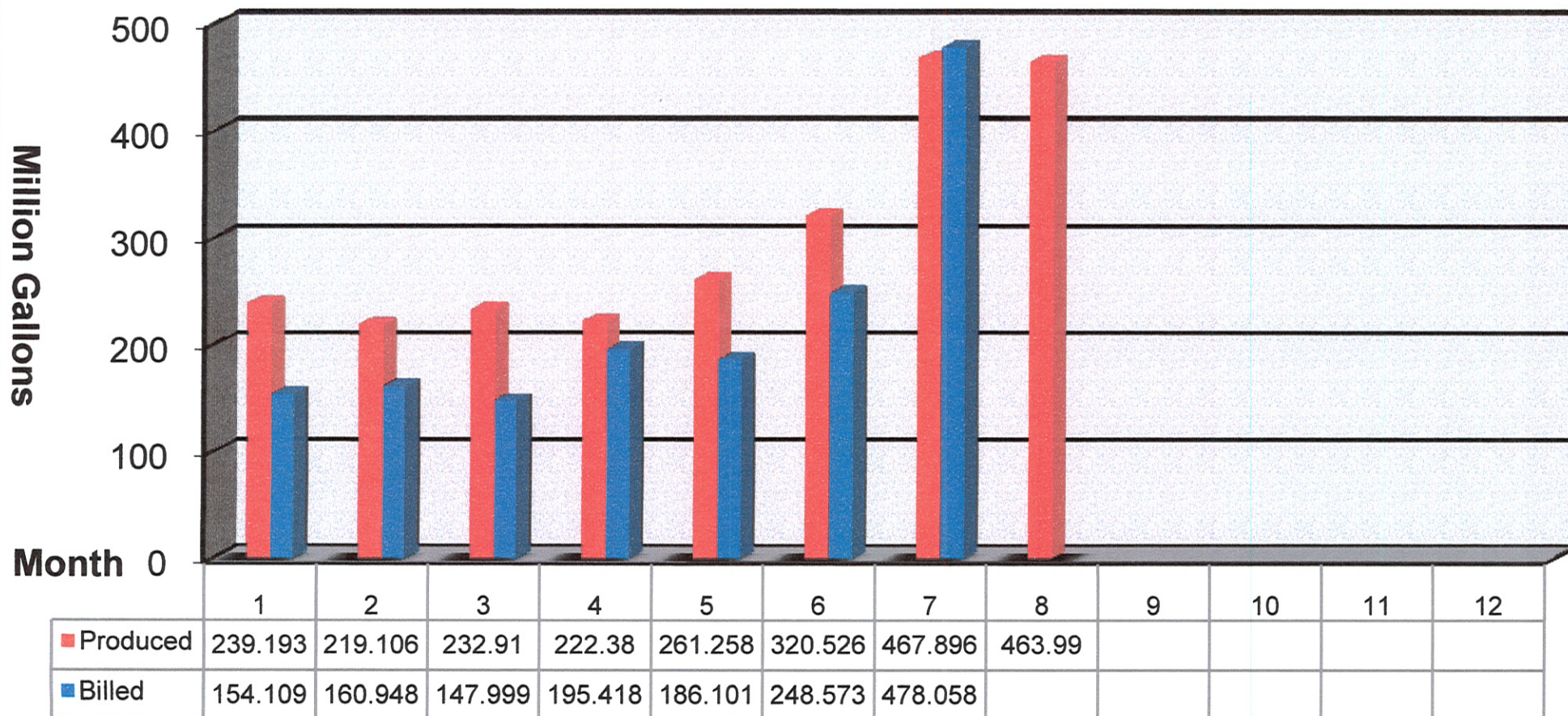


### Rapid City Cumulative Potable Water Comparison 2008-2011 in Billion Gallons





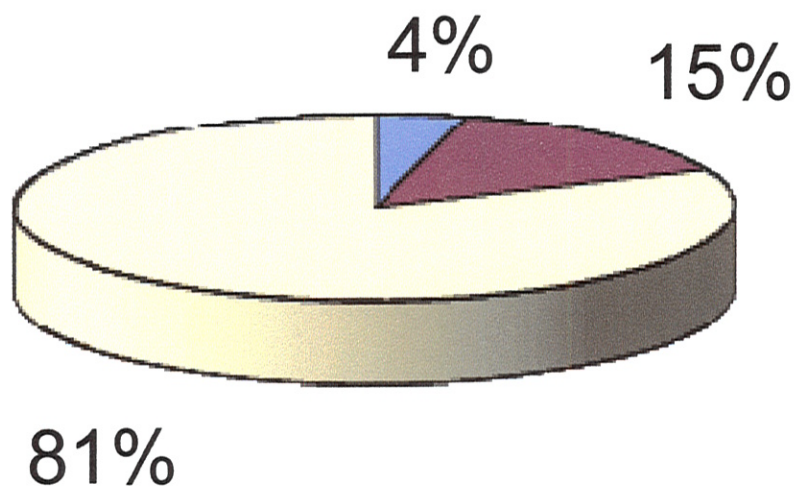
## 2011 Potable Water Produced VS Water Billed



Figures shown are produced and billed for approximately the same time period.  
 Billed includes non-billed consumption by Rapid Valley due to salt



## 2011 Total Potable Water Used



Infiltration Galleries

Surface Plant

Wells



## 2011 Potable Well Water Used

Wells 1,4

Well 5

Well 6

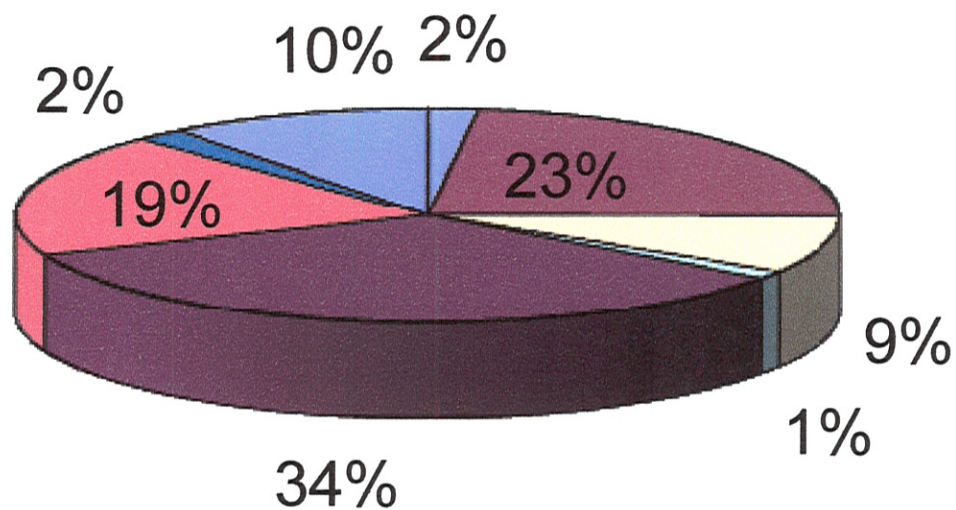
Well 8

Well 9

Well 10

Well 11

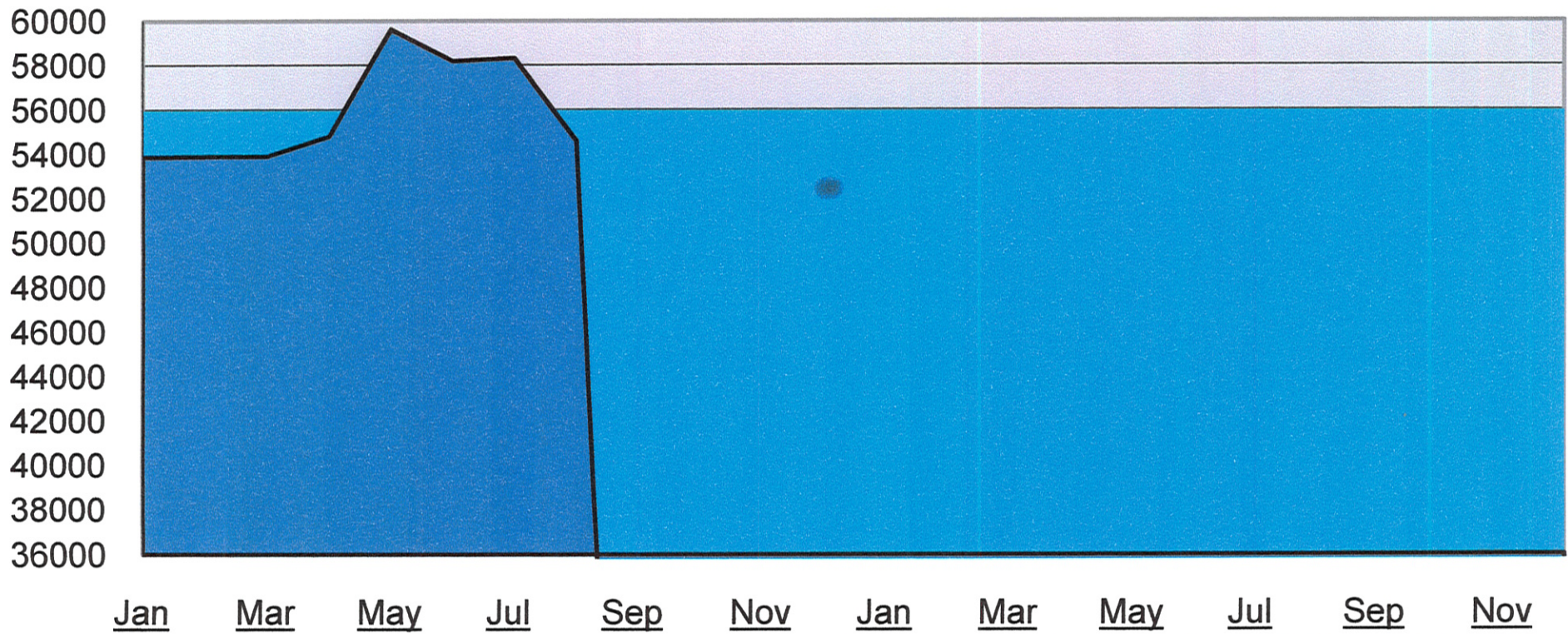
Well 12





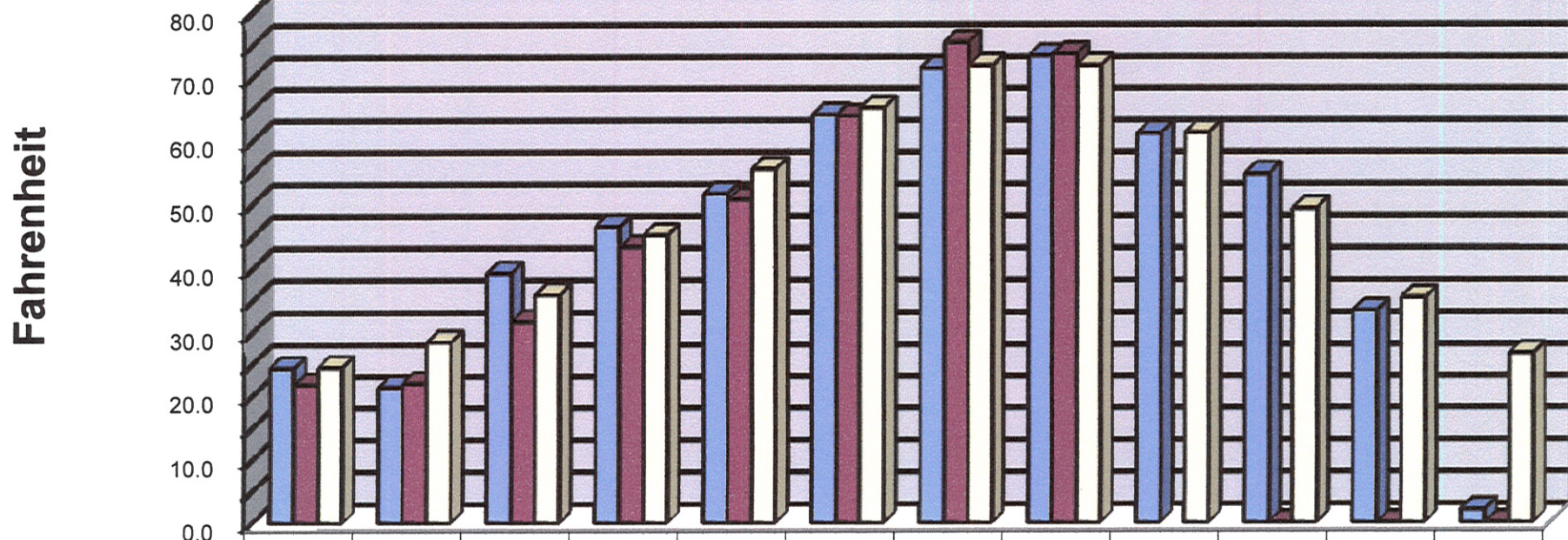
# Pactola Storage in Acre Feet January 2011 - December 2012

■ Full Reservoir Pool    ■ End of Month Volume





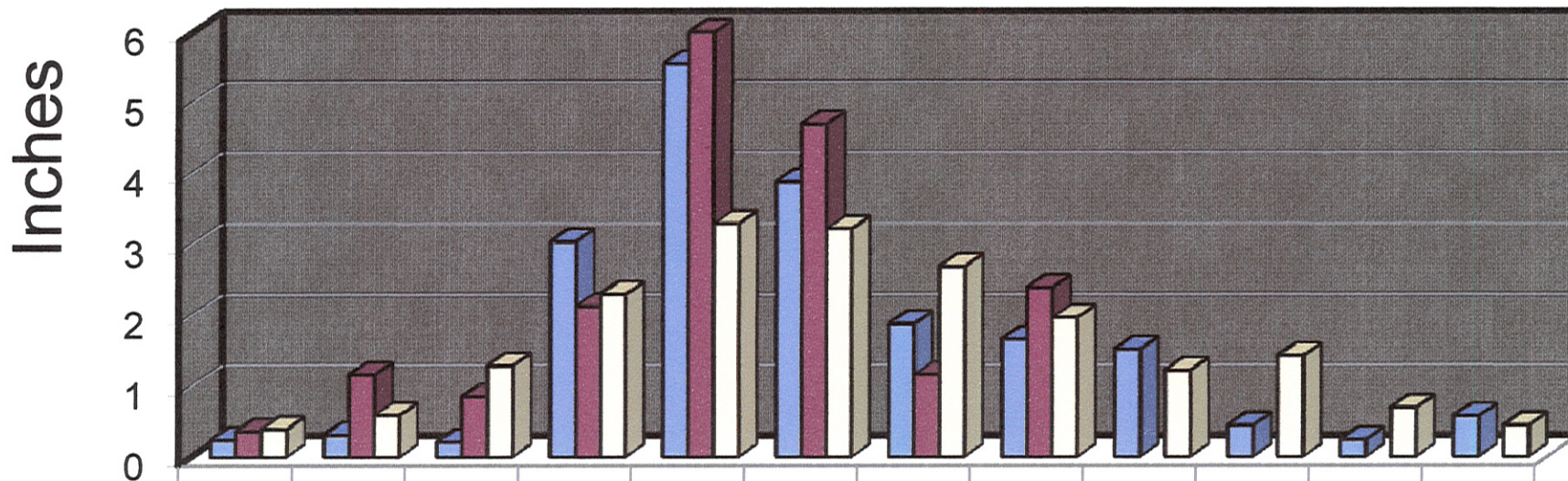
## Monthly Overall Temperature Averages 2010 VS 2011



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	24.3	21.3	39.2	46.4	51.5	63.9	71.2	73.2	61.0	54.6	33.3	2.0
2011	21.7	21.9	31.6	43.2	50.6	63.7	75.3	73.5		0.0	0.0	0.0
RC NORMAL.	24.4	28.4	35.8	45.1	55.4	65.0	71.7	71.7	61.1	49.2	35.3	26.6

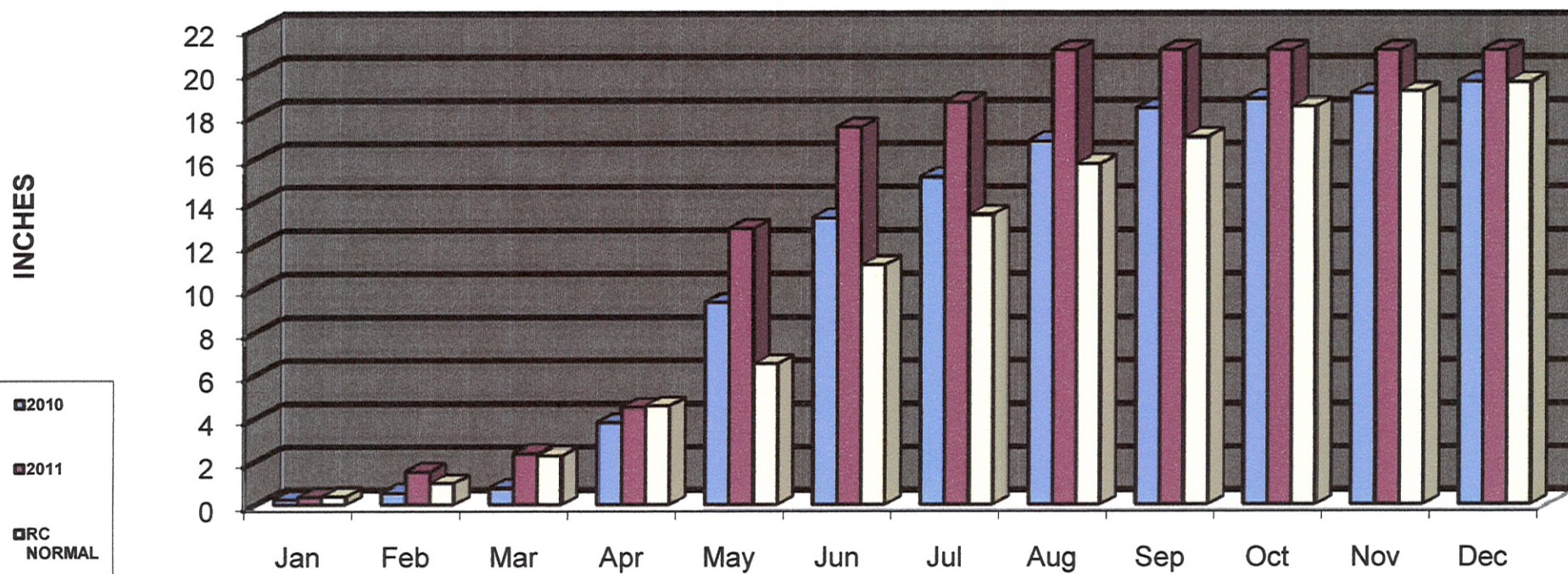


### Monthly Precipitation Totals 2010 VS 2011



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
■2010	0.24	0.31	0.21	3.04	5.56	3.88	1.88	1.66	1.52	0.44	0.24	0.57
■2011	0.36	1.16	0.85	2.13	8.24	4.7	1.16	2.39				
■RC NORMAL	0.39	0.59	1.29	2.3	3.29	3.22	2.69	1.97	1.22	1.43	0.69	0.44

## Cumulative Monthly Precipitation Totals 2010 VS 2011





**RAPID CITY SOURCE PRODUCTION FOR AUGUST 2011**

AUGUST 2011	GIRL SCOUTS	MEADOW BROOK	WELL #1	WELL #4	WELL #5	WELL #6	WELL #8	WELL #9	WELL #10	WELL #11	WELL #12	TREATMENT PLANT	TOTAL GALS.
1	0	0	0	0	668000	951000	0	809000	1459000	1125000	1279000	8700000	14,991,000
2	0	0	0	0	1968000	1100000	0	200000	1598000	285000	976000	9240000	15,367,000
3	0	0	0	0	2170000	914000	0	1370000	1331000	478000	2036000	8360000	16,659,000
4	0	0	0	0	2137000	987000	0	1353000	1713000	228000	2060000	7830000	16,308,000
5	0	0	0	0	2211000	1146000	0	0	1840000	301000	1122000	8260000	14,880,000
6	0	32400	0	0	1661000	986000	0	0	1441000	390000	2351000	8960000	15,821,400
7	0	267100	0	0	922000	1028000	0	0	1630000	648000	1990000	9090000	15,575,100
8	247000	0	0	0	2253000	1039000	0	271000	1664000	14000	952000	6170000	12,610,000
9	0	300	0	0	506000	1095000	0	0	1850000	134000	2025000	7700000	13,310,300
10	0	0	0	0	949000	977000	0	0	1547000	90000	1027000	6480000	11,050,000
11	0	0	0	0	1184000	968000	0	0	1503000	805000	1562000	7532000	13,554,000
12	0	0	0	0	416000	518000	0	0	1695000	658000	348000	8930000	12,565,000
13	0	0	0	0	0	666000	0	0	1725000	1074000	981000	7970000	12,416,000
14	0	0	0	0	0	1089000	0	0	1843000	920000	881000	8310000	13,043,000
15	0	0	0	0	0	1001000	0	0	1507000	840000	1040000	9080000	13,468,000
16	0	0	0	0	313000	1005000	0	47000	1479000	994000	587000	9600000	14,025,000
17	0	0	0	0	695000	1021000	0	706000	1546000	1017000	1091000	9260000	15,336,000
18	0	0	0	0	2129000	986000	0	0	1492000	1093000	1259000	8680000	15,639,000
19	0	0	0	0	1652000	1074000	0	700000	1652000	1134000	1364000	9000000	16,576,000
20	0	0	0	0	948000	1128000	0	0	1651000	1049000	680000	9210000	14,664,000
21	0	0	0	0	677000	930000	0	0	1359000	990000	902000	8890000	13,748,000
22	0	0	0	0	1229000	1063000	0	295000	1565000	1100000	1302000	8900000	15,454,000
23	0	0	0	0	2307000	1120000	0	2031000	1478000	1063000	1657000	8270000	17,926,000
24	0	0	0	0	1518000	994000	0	1770000	1575000	841000	550000	9290000	16,538,000
25	0	0	0	0	2187000	929000	0	2288000	1389000	1154000	2318000	8640000	18,905,000
26	0	0	0	0	1687000	1088000	0	1640000	1633000	875000	472000	8640000	16,035,000
27	0	0	0	0	2253000	1035000	0	1348000	1386000	1152000	1635000	9290000	18,099,000
28	0	0	0	0	1234000	1115000	0	1200000	1619000	990000	1421000	8190000	15,769,000
29	0	0	0	0	1671000	1055000	0	2489000	1268000	981000	880000	8740000	17,084,000
30	0	0	0	0	2074000	965000	0	3117000	1782000	820000	1403000	3610000	13,771,000
31	1483000	0	0	0	359000	1113000	0	0	1817000	803000	339000	6890000	12,804,000
<b>TOTAL</b>	<b>1,730,000</b>	<b>299,800</b>	<b>0</b>	<b>0</b>	<b>39,978,000</b>	<b>31,084,000</b>	<b>0</b>	<b>21,634,000</b>	<b>49,037,000</b>	<b>24,046,000</b>	<b>38,490,000</b>	<b>257,692,000</b>	<b>463,990,800</b>
<b>DEEP WELL AVERAGES</b>			<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>1,427,786</b>	<b>1,002,710</b>	<b>#DIV/0!</b>	<b>1,272,588</b>	<b>1,581,839</b>	<b>775,677</b>	<b>1,241,613</b>	<b>8,312,645</b>	<b>14,967,445</b>

TOTAL PRODUCTION FOR AUGUST, 2011 PREPARED BY TIM WEBER, SUPERVISOR

PW092711-06

AUG 2011	GIRL SCOUTS	DAILY USAGE	RUNNING TOTAL	MEADOW- BROOK	DAILY USAGE	RUNNING TOTAL	WELL#1	DAILY USAGE	RUNNING TOTAL	WELL#4	DAILY USAGE	RUNNING TOTAL	AUG 2011	WELL #5	DAILY USAGE	RUNNING TOTAL	WELL #6	DAILY USAGE	RUNNING TOTAL	WELL #8
LAST READ	884143			71718533			23943513			1376981			LAST READ	254710			2448449			2971764
1	884143	0	0	71718533	0	0	23943513	0	0	1376981	0	0	1	255378	668000	668000	2449400	951000	951000	2971764
2	884143	0	0	71718533	0	0	23943513	0	0	1376981	0	0	2	257346	1968000	2636000	2450500	1100000	2051000	2971764
3	884143	0	0	71718533	0	0	23943513	0	0	1376981	0	0	3	259516	2170000	4806000	2451414	914000	2965000	2971764
4	884143	0	0	71718533	0	0	23943513	0	0	1376981	0	0	4	261653	2137000	6943000	2452401	987000	3952000	2971764
5	884143	0	0	71718533	0	0	23943513	0	0	1376981	0	0	5	263864	2211000	9154000	2453547	1146000	5098000	2971764
6	884143	0	0	71718857	32400	32400	23943513	0	0	1376981	0	0	6	265525	1661000	10815000	2454533	986000	6084000	2971764
7	884143	0	0	71721528	267100	299500	23943513	0	0	1376981	0	0	7	266447	922000	11737000	2455561	1028000	7112000	2971764
8	884390	247000	247000	71721528	0	299500	23943513	0	0	1376981	0	0	8	268700	2253000	13990000	2456600	1039000	8151000	2971764
9	884390	0	247000	71721531	300	299800	23943513	0	0	1376981	0	0	9	269206	506000	14496000	2457695	1095000	9246000	2971764
10	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	10	270155	949000	15445000	2458672	977000	10223000	2971764
11	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	11	271339	1184000	16629000	2459640	968000	11191000	2971764
12	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	12	271755	416000	17045000	2460158	518000	11709000	2971764
13	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	13	271755	0	17045000	2460824	666000	12375000	2971764
14	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	14	271755	0	17045000	2461913	1089000	13464000	2971764
15	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	15	271755	0	17045000	2462914	1001000	14465000	2971764
16	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	16	272068	313000	17358000	2463919	1005000	15470000	2971764
17	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	17	272763	695000	18053000	2464940	1021000	16491000	2971764
18	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	18	274892	2129000	20182000	2465926	986000	17477000	2971764
19	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	19	276544	1652000	21834000	2467000	1074000	18551000	2971764
20	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	20	277492	948000	22782000	2468126	1126000	19677000	2971764
21	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	21	278169	677000	23459000	2469056	930000	20607000	2971764
22	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	22	279398	1229000	24688000	2470119	1063000	21670000	2971764
23	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	23	281705	2307000	26995000	2471239	1120000	22790000	2971764
24	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	24	283223	1518000	28513000	2472233	994000	23784000	2971764
25	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	25	285410	2187000	30700000	2473162	929000	24713000	2971764
26	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	26	287097	1687000	32387000	2474250	1088000	25801000	2971764
27	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	27	289350	2253000	34640000	2475285	1035000	26836000	2971764
28	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	28	290584	1234000	35874000	2476400	1115000	27951000	2971764
29	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	29	292255	1671000	37545000	2477455	1055000	29006000	2971764
30	884390	0	247000	71721531	0	299800	23943513	0	0	1376981	0	0	30	294329	2074000	39619000	2478420	965000	29971000	2971764
31	885873	1483000	1730000	71721531	0	299800	23943513	0	0	1376981	0	0	31	294688	359000	39978000	2479533	1113000	31084000	2971764
RUNNING_TOTAL									0			0				39978000			31084000	



TOTAL PRODUCTION FOR AUGUST, 2011 PREPARED BY TIM WEBER, SUPERVISOR

PW092711-06

DAILY USAGE	RUNNING TOTAL	WELL #9	DAILY USAGE	RUNNING TOTAL	WELL #10	DAILY USAGE	RUNNING TOTAL	WELL #11	DAILY USAGE	RUNNING TOTAL	WELL #12	DAILY USAGE	RUNNING TOTAL	AUG 2011	OUTSIDE DAILY-TOTAL	OUTSIDE RUN-TOTAL	PLANT LOW SERVICE	DAILY USAGE	RUNNING TOTAL
		11682138			8205412			1960713				584939	LAST READ				292098		
0	0	11682947	809000	809000	8206871	1459000	1459000	1961838	1125000	1125000	586218	1279000	1279000	1	6291000	6291000	292968	8700000	8700000
0	0	11683147	200000	1009000	8208469	1598000	3057000	1962123	285000	1410000	587194	976000	2255000	2	6127000	12418000	293892	9240000	17940000
0	0	11684517	1370000	2379000	8209800	1331000	4388000	1962601	478000	1888000	589230	2036000	4291000	3	8299000	20717000	294728	8360000	26300000
0	0	11685870	1353000	3732000	8211513	1713000	6101000	1962829	228000	2116000	591290	2060000	6351000	4	8478000	29195000	295511	7830000	34130000
0	0	11685870	0	3732000	8213353	1840000	7941000	1963130	301000	2417000	592412	1122000	7473000	5	6620000	35815000	296337	8260000	42390000
0	0	11685870	0	3732000	8214794	1441000	9382000	1963520	390000	2807000	594763	2351000	9824000	6	6861400	42676400	297233	8960000	51350000
0	0	11685870	0	3732000	8216424	1630000	11012000	1964168	648000	3455000	596753	1990000	11814000	7	6485100	49161500	298142	9090000	60440000
0	0	11686141	271000	4003000	8218088	1664000	12676000	1964182	14000	3469000	597705	952000	12766000	8	6440000	55601500	298759	6170000	66610000
0	0	11686141	0	4003000	8219938	1850000	14526000	1964316	134000	3603000	599730	2025000	14791000	9	5610300	61211800	299529	7700000	74310000
0	0	11686141	0	4003000	8221485	1547000	16073000	1964406	90000	3693000	600757	1027000	15818000	10	4590000	65801800	300175	6460000	80770000
0	0	11686141	0	4003000	8222988	1503000	17576000	1965211	805000	4498000	602319	1562000	17380000	11	6022000	71823800	300917	7420000	88190000
0	0	11686141	0	4003000	8224683	1695000	19271000	1965869	658000	5156000	602667	348000	17728000	12	3635000	75459800	301810	8930000	97120000
0	0	11686141	0	4003000	8226408	1725000	20996000	1966943	1074000	6230000	603648	981000	18709000	13	4446000	79904800	302607	7970000	105090000
0	0	11686141	0	4003000	8228251	1843000	22839000	1967863	920000	7150000	604529	881000	19590000	14	4733000	84637800	303438	8310000	113400000
0	0	11686141	0	4003000	8229758	1507000	24346000	1968703	840000	7990000	605569	1040000	20630000	15	4388000	89025800	304346	9080000	122480000
0	0	11686188	47000	4050000	8231237	1479000	25825000	1969697	994000	8984000	606156	587000	21217000	16	4425000	93450800	305306	9600000	132080000
0	0	11686894	706000	4756000	8232783	1546000	27371000	1970714	1017000	10001000	607247	1091000	22308000	17	6076000	99526800	306232	9260000	141340000
0	0	11686894	0	4756000	8234275	1492000	28863000	1971807	1093000	11094000	608506	1259000	23567000	18	6959000	106485800	307100	8680000	150020000
0	0	11687594	700000	5456000	8235927	1652000	30515000	1972941	1134000	12228000	609870	1364000	24931000	19	7576000	114061800	308000	9000000	159020000
0	0	11687594	0	5456000	8237578	1651000	32166000	1973990	1049000	13277000	610550	680000	25611000	20	5454000	119515800	308921	9210000	168230000
0	0	11687594	0	5456000	8238937	1359000	33525000	1974980	990000	14267000	611452	902000	26513000	21	4858000	124373800	309810	8890000	177120000
0	0	11687889	295000	5751000	8240502	1565000	35090000	1976080	1100000	15367000	612754	1302000	27815000	22	6554000	130927800	310700	8900000	186020000
0	0	11689920	2031000	7782000	8241980	1478000	36568000	1977143	1063000	16430000	614411	1657000	29472000	23	9656000	140583800	311527	8270000	194290000
0	0	11691690	1770000	9552000	8243555	1575000	38143000	1977984	841000	17271000	614961	550000	30022000	24	7248000	147831800	312456	9290000	203580000
0	0	11693978	2288000	11840000	8244944	1389000	39532000	1979138	1154000	18425000	617279	2318000	32340000	25	10265000	158096800	313320	8640000	212220000
0	0	11695618	1640000	13480000	8246577	1633000	41165000	1980013	875000	19300000	617751	472000	32812000	26	7395000	165491800	314184	8640000	220860000
0	0	11696966	1348000	14828000	8247963	1386000	42551000	1981165	1152000	20452000	619386	1635000	34447000	27	8809000	174300800	315113	9290000	230150000
0	0	11698166	1200000	16028000	8249582	1619000	44170000	1982155	990000	21442000	620807	1421000	35868000	28	7579000	181879800	315932	8190000	238340000
0	0	11700655	2489000	18517000	8250850	1268000	45438000	1983136	981000	22423000	621687	880000	36748000	29	8344000	190223800	316806	8740000	247080000
0	0	11703772	3117000	21634000	8252632	1782000	47220000	1983956	820000	23243000	623090	1403000	38151000	30	10161000	200384800	317167	3610000	250690000
0	0	11703772	0	21634000	8254449	1817000	49037000	1984759	803000	24046000	623429	339000	38490000	31	5914000	206298800	317856	6890000	257580000
0	0		0	21634000		1817000	49037000		803000	24046000		339000	38490000		5914000	206298800		0	257580000

TOTAL PRODUCTION FOR AUGUST, 2011 PREPARED BY TIM WEBER, SUPERVISOR

PW092711-06

PLANT HIGH SERVICE	DAILY USAGE	RUNNING TOTAL	DAILY PLANT TOTAL	PLANT RUN TOTAL	DAILY TOTAL EVERYTHING	RUNNING TOTAL EVERYTHING	AUG 2011	DEEP WELL PRODUCTION	GOLF COURSES GALLONS	REPLACEMENT WATER USE	REPLACEMENT WATER MINUS NAT. FLOWS	REPLACEMENT WATER USED CFS	WATER ORDER CFS	NATURAL FLOW CREDIT	TOTAL REQUESTED CFS
604									182777						
604	0	0	8700000	8700000	14991000	14991000	1	6291000	182777	8882777	739750	1.14	0.0	12.6	12.6
604	0	0	9240000	17940000	15367000	30358000	2	6127000	182777	9422777	1279750	1.98	0.0	12.6	12.6
604	0	0	8360000	26300000	16659000	47017000	3	8299000	182777	8542777	399750	0.62	0.0	12.6	12.6
604	0	0	7830000	34130000	16308000	63325000	4	8478000	182777	8012777	-130250	-0.20	0.0	12.6	12.6
604	0	0	8260000	42390000	14880000	78205000	5	6620000	182777	8442777	299750	0.46	0.0	12.6	12.6
604	0	0	8960000	51350000	15821400	94026400	6	6829000	182777	9175177	1032150	1.60	0.0	12.6	12.6
604	0	0	9090000	60440000	15575100	109601500	7	6218000	182777	9539877	1396850	2.16	0.0	12.6	12.6
604	0	0	6170000	66610000	12610000	122211500	8	6193000	182777	6599777	-1543250	-2.39	0.0	12.6	12.6
604	0	0	7700000	74310000	13310300	135521800	9	5610000	182777	7883077	-259950	-0.40	0.0	12.6	12.6
604	0	0	6460000	80770000	11050000	146571800	10	4590000	182777	6642777	-1500250	-2.32	0.0	12.6	12.6
716	112000	112000	7532000	88302000	13554000	160125800	11	6022000	182777	7714777	-428250	-0.66	0.0	12.6	12.6
716	0	112000	8930000	97232000	12565000	172690800	12	3635000	182777	9112777	969750	1.50	0.0	12.6	12.6
716	0	112000	7970000	105202000	12416000	185106800	13	4446000	182777	8152777	9750	0.02	0.0	12.6	12.6
716	0	112000	8310000	113512000	13043000	198149800	14	4733000	182777	8492777	349750	0.54	0.0	12.6	12.6
716	0	112000	9080000	122592000	13468000	211617800	15	4388000	182777	9262777	1119750	1.73	0.0	12.6	12.6
716	0	112000	9600000	132192000	14025000	225642800	16	4425000	182777	9782777	1639750	2.54	0.0	12.6	12.6
716	0	112000	9260000	141452000	15336000	240978800	17	6076000	182777	9442777	1299750	2.01	0.0	12.6	12.6
716	0	112000	8680000	150132000	15639000	256617800	18	6959000	182777	8862777	719750	1.11	0.0	12.6	12.6
716	0	112000	9000000	159132000	16576000	273193800	19	7576000	182777	9182777	1039750	1.61	0.0	12.6	12.6
716	0	112000	9210000	168342000	14664000	287857800	20	5454000	182777	9392777	1249750	1.93	0.0	12.6	12.6
716	0	112000	8890000	177232000	13748000	301605800	21	4858000	182777	9072777	929750	1.44	0.0	12.6	12.6
716	0	112000	8900000	186132000	15454000	317059800	22	6554000	182777	9082777	939750	1.45	0.0	12.6	12.6
716	0	112000	8270000	194402000	17926000	334985800	23	9656000	182777	8452777	309750	0.48	0.0	12.6	12.6
716	0	112000	9290000	203692000	16538000	351523800	24	7248000	182777	9472777	1329750	2.06	0.0	12.6	12.6
716	0	112000	8640000	212332000	18905000	370428800	25	10265000	182777	8822777	679750	1.05	0.0	12.6	12.6
716	0	112000	8640000	220972000	18035000	386463800	26	7395000	182777	8822777	679750	1.05	0.0	12.6	12.6
716	0	112000	9290000	230262000	18099000	404562800	27	8809000	182777	9472777	1329750	2.06	0.0	12.6	12.6
716	0	112000	8190000	238452000	15769000	420331800	28	7579000	182777	8372777	229750	0.36	0.0	12.6	12.6
716	0	112000	8740000	247192000	17084000	437415800	29	8344000	182777	8922777	779750	1.21	0.0	12.6	12.6
716	0	112000	3610000	250802000	13771000	451186800	30	10161000	182777	3792777	-4350250	-6.73	0.0	12.6	12.6
716	0	112000	6890000	257692000	12804000	463990800	31	4431000	182777	8555777	412750	0.64	0.0	12.6	12.6
	0	112000	0	Monthly Avg.	14,967,445			204269000	5666087	265387887	260863983	20.04	0.0	0.0	
													Total Ordered		



**CHEMICAL DOSAGE COSTS  
2011 PREPARED BY TIM WEBER, WATER PRODUCTION SUPERVISOR**

Year	Location	Production	Pounds CL2			Pounds NaSiF			Gal. FL Acid			Pounds FL Acid			Gal. pax xl			Pounds pax xl		
			Used	Dosage	Cost	Used	Dosage	Cost	Used	Used	Dosage	Cost	Used	Used	Dosage	Cost	Used	Used	Dosage	Cost
1/31/11	Girl Scouts	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Mdbrk	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Jackson Spr	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Well #1	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Well #4	13,272,000	191	1.73	\$122.05	0	0.00	\$0.00	83	830	7.50	\$340.30								
	Well #5	56,892,000	464	0.98	\$296.50	0	0.00	\$0.00	252	2,520	5.31	\$1,033.20								
	Well #6	3,288,000	24	0.88	\$15.34	0	0.00	\$0.00	20	200	7.29	\$82.00								
	Well #8	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Well #9	90,289,000	745	0.99	\$476.06	0	0.00	\$0.00	307	3,070	4.08	\$1,258.70								
	Well #10	56,605,000	372	0.79	\$237.71	0	0.00	\$0.00	194	1,940	4.11	\$795.40								
	Well #11	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Well #12	18,847,000	21	0.13	\$16.80	0	0.00	\$0.00	57	570	3.63	\$233.70								
	WTP	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00	0	0	0.00	\$0.00	0	0	0.00	\$0.00
<b>MO TOTAL</b>		<b>239,193,000</b>	<b>1,817</b>		<b>\$1,164.44</b>	<b>0</b>		<b>\$0.00</b>	<b>913</b>	<b>9,130</b>		<b>\$3,743.30</b>	<b>0</b>	<b>0</b>						<b>\$0.00</b>
2/28/11	Girl Scouts	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Mdbrk	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Well #1	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								
	Well #4	11,142,000	157	1.69	\$100.32	0	0.00	\$0.00	69	690	7.43	\$282.90								
	Well #5	53,053,000	342	0.77	\$218.54	0	0.00	\$0.00	233	2,330	5.27	\$955.30								
	Well #6	18,441,000	144	0.94	\$92.02	0	0.00	\$0.00	93	930	6.05	\$381.30								
	Well #8	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00								

**CHEMICAL DOSAGE COSTS  
2011 PREPARED BY TIM WEBER, WATER PRODUCTION SUPERVISOR**

Year	Location	Production	Pounds CL2			Pounds NaSiF			Gal. FL Acid				Pounds FL Acid			
			Used	Dosage	Cost	Used	Dosage	Cost	Used	Used	Dosage	Cost	Used	Used	Dosage	Cost
	Well #9	74,097,000	630	1.02	\$402.57	0	0.00	\$0.00	246	2,460	3.98	\$1,008.60				
	Well #10	48,292,000	303	0.75	\$193.62	0	0.00	\$0.00	183	1,830	4.54	\$750.30				
	Well #11	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #12	14,081,000	6	0.05	\$4.80	0	0.00	\$0.00	32	320	2.72	\$131.20				
	WTP	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00	0	0	0.00	\$0.00
<b>MO TOTAL</b>		<b>219,106,000</b>	<b>1,582</b>		<b>\$1,011.86</b>	<b>0</b>		<b>\$0.00</b>	<b>856</b>	<b>8,560</b>		<b>\$3,509.60</b>	<b>0</b>	<b>0</b>		<b>\$0.00</b>
3/31/11	Girl Scouts	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Mdbrk	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #1	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #4	11,906,000	105	1.06	\$67.10	0	0.00	\$0.00	74	740	7.45	\$303.40				
	Well #5	62,608,000	496	0.95	\$316.94	0	0.00	\$0.00	273	2,730	5.23	\$1,119.30				
	Well #6	23,453,000	188	0.96	\$120.13	0	0.00	\$0.00	119	1,190	6.08	\$487.90				
	Well #8	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #9	94,403,000	798	1.01	\$509.92	0	0.00	\$0.00	288	2,880	3.66	\$1,180.80				
	Well #10	25,034,000	175	0.84	\$111.83	0	0.00	\$0.00	91	910	4.36	\$373.10				
	Well #11	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #12	15,506,000	9	0.07	\$7.20	0	0.00	\$0.00	38	380	2.94	\$155.80				
	WTP	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00	0	0	0.00	\$0.00
<b>MO TOTAL</b>		<b>232,910,000</b>	<b>1,771</b>		<b>\$1,133.12</b>	<b>0</b>		<b>\$0.00</b>	<b>883</b>	<b>8,830</b>		<b>\$3,620.30</b>	<b>0</b>	<b>0</b>		<b>\$0.00</b>
4/30/11	Girl Scouts	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Mdbrk	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				

Costs Effective 8/31/2011



**CHEMICAL DOSAGE COSTS  
2011 PREPARED BY TIM WEBER, WATER PRODUCTION SUPERVISOR**

Year	Location	Production	Pounds CL2 Used	Dosage	Cost	Pounds NaSiF Used	Dosage	Cost	Gal. FL Acid Used	Pounds FL Acid Used	Dosage	Cost	Gal. pax xl Used	Pounds pax xl Used	Dosage	Cost
	Well #1	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #4	1,217,000	4	0.39	\$2.56	0	0.00	\$0.00	9	90	8.87	\$36.90				
	Well #5	56,161,000	512	1.09	\$327.17	0	0.00	\$0.00	257	2,570	5.49	\$1,053.70				
	Well #6	16,254,000	125	0.92	\$79.88	0	0.00	\$0.00	72	720	5.31	\$295.20				
	Well #8	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #9	92,056,000	765	1.00	\$488.84	0	0.00	\$0.00	300	3,000	3.91	\$1,230.00				
	Well #10	38,008,000	250	0.79	\$159.75	0	0.00	\$0.00	146	1,460	4.61	\$598.60				
	Well #11	0	4	0.00	\$2.56	0	0.00	\$0.00	1	10	0.00	\$4.10				
	Well #12	18,684,000	20	0.13	\$16.00	0	0.00	\$0.00	47	470	3.02	\$192.70				
	WTP	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00	0	0	0.00	\$0.00
<b>MO TOTAL</b>		<b>222,380,000</b>	<b>1,680</b>		<b>\$1,076.74</b>	<b>0</b>		<b>\$0.00</b>	<b>832</b>	<b>8,320</b>		<b>\$3,411.20</b>	<b>0</b>	<b>0</b>		<b>\$0.00</b>

5/31/11	Girl Scouts	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00				
	Mdbrk	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00				
	Well #1	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00				
	Well #4	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00				
	Well #5	65,470,000	558	1.02	\$356.56	0	0.00	\$0.00	274	2,740	5.02	\$1,123.40				
	Well #6	18,501,000	125	0.81	\$79.88	0	0.00	\$0.00	76	760	4.93	\$311.60				
	Well #8	2,377,000	28	1.41	\$17.89	0	0.00	\$0.00	17	170	8.58	\$69.70				
	Well #9	99,214,000	847	1.02	\$541.23	0	0.00	\$0.00	337	3,370	4.07	\$1,381.70				

Costs Effective 8/31/2011

**CHEMICAL DOSAGE COSTS  
2011 PREPARED BY TIM WEBER, WATER PRODUCTION SUPERVISOR**

Year	Location	Production	Pounds CL2 Used	Dosage	Cost	Pounds NaSiF Used	Dosage	Cost	Gal. FL Acid Used	Pounds FL Acid Used	Dosage	Cost	Gal. pax xl Used	Pounds pax xl Used	Dosage	Cost
	Well #10	52,972,000	327	0.74	\$208.95	0	0.00	\$0.00	195	1,950	4.41	\$799.50				
	Well #11	2,000	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #12	22,722,000	10	0.05	\$8.00	0	0.00	\$0.00	51	510	2.69	\$209.10				
	WTP	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00
<b>MO TOTAL</b>		<b>261,258,000</b>	<b>1,895</b>		<b>\$1,212.52</b>	<b>0</b>		<b>\$0.00</b>	<b>950</b>	<b>9,500</b>		<b>\$3,895.00</b>	<b>0</b>	<b>0</b>		<b>\$0.00</b>
6/30/11	Girl Scouts	18,521,000	176	1.14	\$112.46	0	0.00	\$0.00	157	1,570	10.16	\$643.70				
	Mdbrk	0	6	#DIV/0!	\$3.83	0	#DIV/0!	\$0.00	5	50	#DIV/0!	\$20.50				
	Well #1	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00				
	Well #4	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00				
	Well #5	63,177,000	525	1.00	\$335.48	0	0.00	\$0.00	207	2,070	3.93	\$848.70				
	Well #6	28,987,000	192	0.79	\$122.69	0	0.00	\$0.00	118	1,180	4.88	\$483.80				
	Well #8	21,051,000	184	1.05	\$117.58	0	0.00	\$0.00	115	1,150	6.55	\$471.50				
	Well #9	106,989,000	873	0.98	\$557.85	0	0.00	\$0.00	399	3,990	4.47	\$1,635.90				
	Well #10	50,337,000	170	0.40	\$108.63	0	0.00	\$0.00	193	1,930	4.60	\$791.30				
	Well #11	728,000	5	0.82	\$3.20	0	0.00	\$0.00	3	30	4.94	\$12.30				
	Well #12	30,736,000	30	0.12	\$24.00	0	0.00	\$0.00	72	720	2.81	\$295.20				
	WTP	0	0	#DIV/0!	\$0.00	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00	0	0	#DIV/0!	\$0.00



**CHEMICAL DOSAGE COSTS  
2011 PREPARED BY TIM WEBER, WATER PRODUCTION SUPERVISOR**

Year	Location	Production	Pounds CL2 Used	Dosage	Cost	Pounds NaSiF Used	Dosage	Cost	Gal. FL Acid Used	Pounds FL Acid Used	Dosage	Cost	Gal. pax xl Used	Pounds pax xl Used	Dosage	Cost
<b>MO TOTAL</b>		<b>320,526,000</b>	<b>2,161</b>		<b>\$1,385.71</b>	<b>0</b>		<b>\$0.00</b>	<b>1,269</b>	<b>12,690</b>		<b>\$5,202.90</b>	<b>0</b>	<b>0</b>		<b>\$0.00</b>
7/31/11	Girl Scouts	47,189,000	445	1.13	\$311.50	0	0.00	\$0.00	162	1,620	4.12	\$863.46				
	Mdbrk	30,140,300	262	1.04	\$183.40	0	0.00	\$0.00	121	1,210	4.81	\$644.93				
	Well #1	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #4	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #5	60,707,000	623	1.23	\$436.10	0	0.00	\$0.00	284	2,840	5.61	\$1,513.72				
	Well #6	31,852,000	227	0.85	\$158.90	0	0.00	\$0.00	136	1,360	5.12	\$724.88				
	Well #8	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #9	90,935,000	780	1.03	\$546.00	0	0.00	\$0.00	365	3,650	4.81	\$1,945.45				
	Well #10	49,363,000	315	0.77	\$220.50	0	0.00	\$0.00	187	1,870	4.54	\$996.71				
	Well #11	13,394,000	118	1.06	\$82.60	0	0.00	\$0.00	60	600	5.37	\$319.80				
	Well #12	45,496,000	26	0.07	\$20.80	0	0.00	\$0.00	125	1,250	3.29	\$666.25				
	WTP	98,820,000	2,899	3.52	\$1,362.53	0	0.00	\$0.00	428	4,280	5.19	\$2,281.24	1,010	10,413	12.63	\$4,685.90
<b>MO TOTAL</b>		<b>467,896,300</b>	<b>5,695</b>		<b>\$3,322.33</b>	<b>0</b>		<b>\$0.00</b>	<b>1,868</b>	<b>18,680</b>		<b>\$9,956.44</b>	<b>1,010</b>	<b>10,413</b>		<b>\$4,685.90</b>
8/31/11	Girl Scouts	1,730,000	8	0.55	\$5.11	0	0.00	\$0.00	10	100	6.93	\$41.00				
	Mdbrk	299,800	20	8.00	\$12.78	0	0.00	\$0.00	5	50	20.00	\$20.50				

Costs Effective 8/31/2011

**CHEMICAL DOSAGE COSTS**  
**2011 PREPARED BY TIM WEBER, WATER PRODUCTION SUPERVISOR**

Year	Location	Production	Pounds CL2 Used	Dosage	Cost	Pounds NaSiF Used	Dosage	Cost	Gal. FL Acid Used	Pounds FL Acid Used	Dosage	Cost	Gal. pax xl Used	Pounds pax xl Used	Dosage	Cost
	Jackson Spri	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #1	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #4	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #5	39,978,000	154	0.46	\$98.41	0	0.00	\$0.00	170	1,700	5.10	\$697.00				
	Well #6	31,084,000	228	0.88	\$145.69	0	0.00	\$0.00	117	1,170	4.51	\$479.70				
	Well #8	0	0	0.00	\$0.00	0	0.00	\$0.00	0	0	0.00	\$0.00				
	Well #9	21,634,000	190	1.05	\$121.41	0	0.00	\$0.00	86	860	4.77	\$352.60				
	Well #10	49,037,000	308	0.75	\$196.81	0	0.00	\$0.00	163	1,630	3.99	\$668.30				
	Well #11	24,046,000	205	1.02	\$131.00	0	0.00	\$0.00	71	710	3.54	\$291.10				
	Well #12	38,490,000	20	0.06	\$16.00	0	0.00	\$0.00	90	900	2.80	\$369.00				
	WTP	257,692,000	6,744	3.14	\$5,395.20	0	0.00	\$0.00	1,110	11,100	5.16	\$2,775.00	2,420	24,950	11.61	\$11,227.59
<b>MO TOTAL</b>		<b>463,990,800</b>	<b>7,877</b>		<b>\$6,122.41</b>	<b>0</b>		<b>\$0.00</b>	<b>1,822</b>	<b>18,220</b>		<b>\$5,694.20</b>	<b>2,420</b>	<b>24,950</b>		<b>\$11,227.59</b>
<b>YEARLY</b>		<b>2,427,260,100</b>	<b>24,478</b>		<b>\$16,429.13</b>	<b>0</b>		<b>\$0.00</b>	<b>9,393</b>	<b>93,930</b>		<b>\$39,032.94</b>	<b>3,430</b>	<b>35,363</b>		<b>\$15,913.49</b>



## RAPID CITY TOTAL RAW WATER USAGE LESS GALLERIES /TREATMENT PLANT FOR JANUARY 2011 THRU DECEMBER 2011

JAN. 2011 DEC. 2011	ARROWHEAD GOLF COURSE	EXECUTIVE GOLF COURSE	MEADOWBROOK GOLF COURSE	MONTH TOTALS IN GALLONS	REPLACEMENT H2O -M.BROOK G.C. IN CFS/MONTH
JAN.	0	0	0	0	0.0
FEB.	0	0	0	0	0.0
MARCH	0	0	0	0	0.0
APRIL	258,060	0	1,484,032	1,742,092	0.4
MAY	3,740,000	927,520	4,717,636	9,385,156	7.2
JUNE	1,492,260	875,160	3,298,680	5,666,100	3.7
JULY	5,606,260	2,464,660	6,277,216	14,348,136	12.5
AUGUST	7,655,780	1,641,860	8,174,144	17,471,784	14.4
SEPT	0	0	0	0	0.0
OCT	0	0	0	0	0.0
NOV	0	0	0	0	0.0
DEC.	0	0	0	0	0.0
TOTAL	18,752,360	5,909,200	23,951,708	48,613,268	38.2

M.Brook G.C. total 1200 gpm, water rt. 1.5cfs, or about 700 gpm.

Exec. G.C. 650 gpm but only produces 350 gpm.

Arrowhead G.C. 550 gpm, water right 2.38cfs or 1,068 gpm.

## RAPID CREEK WATER USAGE JAN 1 2011 - DEC 31 2011

JAN. 2011 DEC. 2011	TREATED WATER SOURCES GALLONS	UNTREATED WATER SOURCES GALLONS	MONTHLY TOTALS GALLONS	ACRE-FEET CONVERSIONS
JAN.	239,193,000	0	239,193,000	734
FEB.	219,106,000	0	219,106,000	672
MARCH	232,910,000	0	232,910,000	715
APRIL	222,380,000	1,742,092	224,122,092	688
MAY	261,258,000	9,385,156	270,643,156	831
JUNE	320,526,000	5,666,100	326,192,100	1,001
JULY	467,896,300	14,348,136	482,244,436	1,480
AUGUST	478,058,610	17,471,784	495,530,394	1,521
SEPT.	0	0	0	0
OCT	0	0	0	0
NOV	0	0	0	0
DEC.	0	0	0	0
<b>TOTAL</b>	<b>2,441,327,910</b>	<b>48,613,268</b>	<b>2,489,941,178</b>	<b>7,642</b>

## Note:

Treated water sources include: Girls Scouts, Meadowbrook and Jackson Springs Galleries, Treatment Plant, Well #1, #4, #5, #6, #8, #9, #10, #11, #12, .  
 Untreated water sources included: Meadowbrook Golf Course, Arrowhead Country Club and Executive Golf Course.