



# Utility Billing Cycles

## History

**Closing the Gap Between Read and Billing Dates**

**Meter Read Cycles**

**Proposed Adjustments**



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# HISTORY

## Meter Read Cycles

- 1994
  - Read periods 29-33 days.
  - Median read 31 days
- 2003
  - Three tiered billing rates instituted
  - Read periods shortened to 28 - 30 days
  - Median read 29 days
  - Widened gap between the read date and billing date
- 2004
  - Began residential meter replacements
- 2005
  - Adjusted meter read calendar to shorten the gap between read and billing dates
  - Read periods 28 - 35 days
  - Median read 31.5 days



# Staffing

	Prior 08/04	08/04-05/06	05/06- Present
<b>Meter Readers</b>			
FTE	4	1	1
Temp PT	0	0.5	0
<b>AMR Meter Replacements</b>			
Residential	2,740	6,872	2
Commercial	288	0	17
<b>Manual Commercial Remaining</b>			<b>277</b>

**Total Meters      Residential 9,642 + Commercial 582 = 10,224**

During the transition period August 2004 - June 2006, a part-time temporary position was added to assist with the meter reading. There were 3 turnovers in this temporary position within 18 months compounding the staffing issues with repeated recruitment and training.



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## Meter Technician duties

- Meter reading - includes over 260 manual commercial reads which require 2 persons due to confined space regulations (second person currently provided by Utilities staff)
- Maintenance and repair
- Daily service orders
- Delivering an average of 125 - 150 Final Notice tags each week
- Disconnection/Reconnection of service each Tuesday ranging between 15 and 40 homes



# Closing the Gap Between Reads and Billing

## Option A -- Bill two month's water consumption on one statement.

- High bills even if the tiers were temporarily removed
- Aging and balance implications on the Account/Delinquent Status and the subsequent fees

## Option B -- Increase the read cycle window by two days

- Must avoid the irrigation months (May through October)
- 36-48 months to see a significant reduction in the gap between read dates and billing dates
- Perception that the increased read cycles will have an impact on the sewer averaging data



## **Option C -- Bill water consumption 13 times in 2007**

- **Adjust billing dates by one week four times in 2007 in the months containing a fifth Wednesday (January, May, August and October)**
- **All billings would be 4 weeks apart and payment due dates remain consistently 28 days after the invoice date**
- **Thirteenth billing in December would be water only and minimal**
- **For example: at the City Wide Average of 5,000 gallons the total invoice would be \$15.65**
- **By November 2007, we would be back to the historical schedule of Cycle 1 billing the first Wednesday of each month, Cycle 2 the second week and so on**
- **As of November 2007 the gap between read dates and billing dates will have been shortened by 4 weeks, leaving approximately 2 weeks to allow staff time to continue proactively researching any problems prior to processing the billing**
- **Consumption use for sewer averaging remains unaffected**



# 2007 Billing Cycle Adjustment

2007

JANUARY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



## Recommendations

- **Adjust the billing cycles four times in 2007 shortening the gap between read and billing dates by four weeks**
- **December 2007 statements, the thirteenth billing, would contain water consumption charges only**
- **Questions**





# Meter Read Schedule

## Retain the 29-33 day read window

- Remains consistent with prior procedures
- Allows flexibility with other Meter Tech duties
- Industry standard 28 – 32 or 29 – 33 days
  - **Broomfield 28 – 32 days**
  - **Thornton 28 – 32 days**
  - **Westminster 27 – 33 days**
- Provides a cushion for the “Oh no!”

## Methods

- Every 31 days
- Same day each month
- Either method has 29-33 day swing due to the number of days per month
- Currently reading 29 – 33 day cycles



# Meter Reads Every 28 - 30 Days

2007

JANUARY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	<del>8</del>	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY						
S	M	T	W	T	F	S
				1	2	3
4	<del>5</del>	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	28 Days		

MARCH						
S	M	T	W	T	F	S
				1	2	3
4	<del>5</del>	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL						
S	M	T	W	T	F	S
1	<del>2</del>	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	<del>23</del>	24	25	26	27	28
29	<del>30</del>	28 Days 2 TIMES				

MAY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	<del>28</del>	29	30	31	28 Days	

JUNE						
S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	<del>25</del>	26	27	28	29	30

JULY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	<del>23</del>	24	25	26	27	28
29	30	31	28 Days			

AUGUST						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	<del>20</del>	21	22	23	24	25
26	27	28	29	30	31	28 Days

SEPTEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	<del>17</del>	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	<del>15</del>	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	28 Days		

NOVEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	<del>12</del>	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	28 Days

DECEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	<del>10</del>	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	28 Days				



# Meter Reads Same Week Each Month

2007

JANUARY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE						
S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



# Meter Reads Same Day Each Month

2007

JANUARY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

MARCH						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE						
S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

DECEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



# Meter Reads Every 31 Days

2007

JANUARY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	X	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	X	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

31 Days

MARCH						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	X	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

29 Days

APRIL						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	X	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

30 Days

MAY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	X	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

31 Days

JUNE						
S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	X	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

29 Days

JULY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	X	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

31 Days

AUGUST						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	X	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

31 Days

SEPTEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	X	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

29 Days

OCTOBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	X	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

31 Days

NOVEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	X	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

30 Days

DECEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	X	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

29 Days



## Recommendations

- **Continue with the historical 29-33 day window for read cycles**
- **Use the Same day of month calendar or Every 31 day calendar**
- **Questions**



# Customer Adjustments

## Accounts considered for adjustments based on:

- The median number of days of 31
- Averaging reads with shorter months either prior or following—historically we have compared & averaged consumption to determine adjustments
- New residents typically have a longer read period for the first billing which saves them the minimum charge of \$18 for service less than 10 days
- Review accounts for adjustments previously calculated for same time period



## June 2003 – May 2004 Proposed Adjustments

	# of Accts >30 Days	Total gals over 11k	30 Day Avg Adj Total	# of Accts >33 Days	Total gals over 11k	33 Day Avg Adj Total
June-03	534	756	\$529.20	25	83	\$58.10
July-03	1,211	1,778	\$1,244.60	12	83	\$58.10
August-03	2,390	5,185	\$3,629.50	82	752	\$526.40
September-03	2,941	5,258	\$3,680.60	190	48	\$33.60
October-03	0	0	\$0.00	0	0	\$0.00
November-03	746	1,080	\$756.00	0	0	\$0.00
December-03	64	102	\$71.40	0	0	\$0.00
January-04	87	105	\$73.50	0	0	\$0.00
February-04	162	232	\$162.40	25	30	\$21.00
March-04	21	22	\$15.40	0	0	\$0.00
April-04	8	8	\$5.60	0	0	\$0.00
May-04	56	69	\$48.30	0	0	\$0.00
<b>TOTALS</b>	<b>8,220</b>	<b>14,595</b>	<b>\$10,216.50</b>	<b>334</b>	<b>996</b>	<b>\$697.20</b>





## June 2004 – May 2005 Proposed Adjustments

	# of Accts >30 Days	Total gals over 23k	30 Day Avg Adj Total	# of Accts >33 Days	Total gals over 23k	33 Day Avg Adj Total
June-04	20	38	\$26.00	0	0	\$0.00
July-04	49	73	\$94.90	0	0	\$0.00
August-04	62	106	\$137.80	0	0	\$0.00
September-04	179	357	\$464.10	0	0	\$0.00
October-04	90	150	\$195.00	0	0	\$0.00
November-04	189	389	\$505.70	0	0	\$0.00
December-04	44	143	\$185.90	0	0	\$0.00
January-05	30	105	\$136.50	18	31	\$40.30
February-05	10	20	\$26.00	2	5	\$6.50
March-05	2	2	\$2.60	0	0	\$0.00
April-05	6	10	\$13.00	0	0	\$0.00
May-05	22	63	\$81.90	16	24	\$31.20
<b>TOTALS</b>	<b>703</b>	<b>1,456</b>	<b>\$1,869.40</b>	<b>36</b>	<b>60</b>	<b>\$78.00</b>



## June 2005 – May 2006 Proposed Adjustments

	# of Accts >30 Days	Total gals over 23k	30 Day Avg Adj Total	# of Accts >33 Days	Total gals over 23k	33 Day Avg Adj Total
June-05	12	25	\$32.50	0	0	\$0.00
July-05	583	2,755	\$3,581.50	0	0	\$0.00
August-05	787	3,723	\$4,839.90	0	0	\$0.00
September-05	169	425	\$552.50	0	0	\$0.00
October-05	447	439	\$570.70	5	15	\$19.50
November-05	99	136	\$176.80	1	1	\$1.30
December-05	0	0	\$0.00	0	0	\$0.00
January-06	44	187	\$243.10	17	46	\$59.80
February-06	0	0	\$0.00	0	0	\$0.00
March-06	0	0	\$0.00	0	0	\$0.00
April-06	0	0	\$0.00	0	0	\$0.00
May-06	62	224	\$291.20	43	81	\$105.30
<b>TOTALS</b>	<b>2,203</b>	<b>7,914</b>	<b>\$10,288.20</b>	<b>66</b>	<b>143</b>	<b>\$185.90</b>



## June – August 2006 Proposed Adjustments

	# of Accts >30 Days	Total gals > 23k	30 Day Avg Adj Total	# of Accts >33 Days	Total gals > 23k	33 Day Avg Adj Total
June-06	1	4	\$5.20	1	2	\$2.60
July-06	2,353	10,604	\$13,785.20	2,239	5,351	\$6,956.30
August-06	75	357	\$464.10	0	0	\$0.00
<b>TOTALS</b>	<b>2,429</b>	<b>10,965</b>	<b>\$14,254.50</b>	<b>2,240</b>	<b>5,353</b>	<b>\$6,958.90</b>



## Total Adjustments June 2003 - August 2006

	30 Day Adjustments	33 Day Adjustments
Jun - May 2004	\$10,216.50	\$697.20
Jun - May 2005	\$1,869.40	\$78.00
Jun - May 2006	\$10,288.20	\$185.90
Jun - Aug 2006	\$22,374.10	\$6,958.90
<b>TOTALS</b>	<b>\$44,748.20</b>	<b>\$7,920.00</b>

Consumption ÷ # days = Daily Average. Daily Average x 30 or 33 = Average Monthly consumption. Average Consumption > 24,000 eligible for adjustment.



## Recommendations

- **Determine adjustments for any extended billing cycle over 33 days using the averaging method comparing longer and shorten read cycles and daily averages as has been the practice.**
- **Questions**