Alternative Rate Increase Proposal

by Ursula and David Partch

Our alternative rate increase schedule can be summarized in the following table:

	1/1/2009*	2009/10	2010/11
Revenue Projections	$ 1,033,190.00	$ 2,606,500.00	$ 3,272,000.00
Conservation Target	0%	10%	20%
Targeted Usage	173,108	354,085	314,742
Cost per unit	$ 5.97	$ 7.36	$ 10.40
	Base rate schedule		
5/8 inch (2)	$ 11.94	$ 14.72	$ 20.80
3/4 inch (3)	$ 17.91	$ 22.08	$ 31.20
1 inch (5)	$ 29.85	$ 36.80	$ 52.00
1.5 inch (10)	$ 59.70	$ 73.60	$ 104.00
2 inch (17)	$ 101.49	$ 125.12	$ 176.80
3 inch (35)	$ 208.95	$ 257.60	$ 364.00
4 inch (49)	$ 292.53	$ 360.64	$ 509.60
6 inch (109)	$ 650.73	$ 802.24	$ 1,133.60

**Note that the figures in the 1/1/2009 column refer to the 2nd half of the fiscal year (Jan. thru June of 2009) only, since rate increases are not expected to be implemented until January of 2009.*

The approximate average yearly water usage in Willits is 880 AF (acre feet) over the last 10 years, which translates into 383,328 units. However, we use the same figure as Bartle Wells (393,428 units based on 2007/08 according to them) to calculate the targeted usage. For the first half of 2009 we would expect 44% of annual usage in the period from Jan. thru June, assuming no conservation. The targeted usage for the following two fiscal years is based on our desired conservation rate of 10% and 20% respectively.

Given the projected revenue requirements (as provided by Bartle Wells, working with the city finance dept.), the average per unit cost can be calculated by dividing the revenue by the usage. Distributing this cost evenly across all users would represent the fairest distribution of costs. If every unit used were always to cost their respective users the same amount, this fair distribution can be achieved. In order to accomplish this, the current rate structure must be changed to ensure that users always pay the same unit price. As we have pointed out before, having a high base charge combined with a relatively low unit charge results in vast discrepancies. For example, a residential user who is currently billed for only 2 units pays $13.20/unit. This per unit price decreases the more water is used. Someone using 20 units in the billing cycle pays only $3.39/unit.

To correct this inequity, we are suggesting that the rate structure be modified accordingly. Using the average unit price in combination with a base charge that includes a specified number of units and is determined by that number would accomplish a fair distribution of costs. Thus (in Jan. 2009) the typical residential user with a 5/8" meter would be charged a base rate of $11.94 which would include 2 units of their usage. Every

additional unit used would be billed at $5.97. The same rate structure would apply to all meter sizes with the number of included units in the base charge indicated in parentheses in the table above.

This very simple scheme would accomplish the following:

- Meet revenue requirements, assuming the targeted conservation level is not exceeded.
- Represent the fairest billing distribution.
- Encourage water conservation by eliminating the current de facto subsidy of high-level users by low-level users.
- Increase the fund balance in the case that targeted conservation levels are not achieved. Thus future fee increases could be avoided or minimized, if additional supply expansion is required because of the failure of conservation.

How does the current rate increase proposed by Bartle Wells and staff compare to our proposal?

Bartle Wells is proposing a 4-tiered rate system for "residential" users (i.e. users with the 5/8" meter size) maintaining a base charge that does not include any units. While it might seem intuitive that a tiered rate system would mean that high-level users would pay more (as the tier rates make it appear), the following analysis disproves this idea.

Units	Current	Ours	BW	Subsidy	Per unit
1	$ 24.10	$ 14.72	$ 27.30	$ (12.58)	$ 27.30
2	$ 26.40	$ 14.72	$ 30.60	$ (15.88)	$ 15.30
3	$ 28.70	$ 22.08	$ 33.90	$ (11.82)	$ 11.30
4	$ 31.00	$ 29.44	$ 37.20	$ (7.76)	$ 9.30
5	$ 33.30	$ 36.80	$ 40.50	$ (3.70)	$ 8.10
6	$ 35.60	$ 44.16	$ 43.80	$ 0.36	$ 7.30
7	$ 37.90	$ 51.52	$ 48.80	$ 2.72	$ 6.97
8	$ 40.20	$ 58.88	$ 53.80	$ 5.08	$ 6.73
9	$ 42.50	$ 66.24	$ 58.80	$ 7.44	$ 6.53
10	$ 44.80	$ 73.60	$ 63.80	$ 9.80	$ 6.38
11	$ 47.10	$ 80.96	$ 68.80	$ 12.16	$ 6.25
12	$ 49.40	$ 88.32	$ 73.80	$ 14.52	$ 6.15
13	$ 51.70	$ 95.68	$ 80.40	$ 15.28	$ 6.18
14	$ 54.00	$ 103.04	$ 87.00	$ 16.04	$ 6.21
15	$ 56.30	$ 110.40	$ 93.60	$ 16.80	$ 6.24
16	$ 58.60	$ 117.76	$ 100.20	$ 17.56	$ 6.26
17	$ 60.90	$ 125.12	$ 106.80	$ 18.32	$ 6.28
18	$ 63.20	$ 132.48	$ 113.40	$ 19.08	$ 6.30
19	$ 65.50	$ 139.84	$ 120.00	$ 19.84	$ 6.32
20	$ 67.80	$ 147.20	$ 126.60	$ 20.60	$ 6.33
21	$ 70.10	$ 154.56	$ 134.90	$ 19.66	$ 6.42
22	$ 72.40	$ 161.92	$ 143.20	$ 18.72	$ 6.51
23	$ 74.70	$ 169.28	$ 151.50	$ 17.78	$ 6.59
34	$ 100.00	$ 250.24	$ 242.80	$ 7.44	$ 7.14
35	$ 102.30	$ 257.60	$ 251.10	$ 6.50	$ 7.17
36	$ 104.60	$ 264.96	$ 259.40	$ 5.56	$ 7.21
37	$ 106.90	$ 272.32	$ 267.70	$ 4.62	$ 7.24
38	$ 109.20	$ 279.68	$ 276.00	$ 3.68	$ 7.26
39	$ 111.50	$ 287.04	$ 284.30	$ 2.74	$ 7.29
40	$ 113.80	$ 294.40	$ 292.60	$ 1.80	$ 7.32
41	$ 116.10	$ 301.76	$ 300.90	$ 0.86	$ 7.34
42	$ 118.40	$ 309.12	$ 309.20	$ (0.08)	$ 7.36
43	$ 120.70	$ 316.48	$ 317.50	$ (1.02)	$ 7.38
44	$ 123.00	$ 323.84	$ 325.80	$ (1.96)	$ 7.40

This table is based on the rates for 2009/10 from both proposals. Note that the table is truncated to hide the rows between 23 and 34 units for presentation purposes.

The table shows a comparison of the monthly bill for the number of units used (metered) between the current rates, our proposal and the proposal by Bartle Wells. The 5th column, labeled 'Subsidy', represents the difference between our proposed rate and Bartle Wells. A negative amount in this column means those users would be paying more with the Bartle Wells scheme than with ours, and vice versa. The 6th column shows the de facto per unit price for the Bartle Wells billing rate factoring in the base charge.

This table shows clearly that all users that use above 5 units would be de facto subsidized by all the other users. Considering that approximately 50% of all bills issued (according to Bartle Wells' own information) are for 5 units or less and almost nobody uses 42 units or more, that means that roughly half of the customers will be subsidizing the other half. And, for the most part, those who use less water will be the ones unduly taxed. This creates a negative conservation incentive – the same as we have had up to this point.

This imbalance in payment burden is even more extreme in consideration of the second part of the Bartle Wells proposal. Here they are suggesting that all other meters sizes (1" and above) will not be subject to a tiered rate at all. The following chart demonstrates (using the 2" meter size as an example) how this creates the same inequity in payment we have had up to now.

Units	Ours	BW	Subsidy	Per unit
20	$ 147.20	$ 292.20	$ (145.00)	$ 14.61
25	$ 184.00	$ 317.20	$ (133.20)	$ 12.69
30	$ 220.80	$ 342.20	$ (121.40)	$ 11.41
35	$ 257.60	$ 367.20	$ (109.60)	$ 10.49
40	$ 294.40	$ 392.20	$ (97.80)	$ 9.81
45	$ 331.20	$ 417.20	$ (86.00)	$ 9.27
50	$ 368.00	$ 442.20	$ (74.20)	$ 8.84
55	$ 404.80	$ 467.20	$ (62.40)	$ 8.49
60	$ 441.60	$ 492.20	$ (50.60)	$ 8.20
65	$ 478.40	$ 517.20	$ (38.80)	$ 7.96
70	$ 515.20	$ 542.20	$ (27.00)	$ 7.75
75	$ 552.00	$ 567.20	$ (15.20)	$ 7.56
80	$ 588.80	$ 592.20	$ (3.40)	$ 7.40
85	$ 625.60	$ 617.20	$ 8.40	$ 7.26
90	$ 662.40	$ 642.20	$ 20.20	$ 7.14
95	$ 699.20	$ 667.20	$ 32.00	$ 7.02
100	$ 736.00	$ 692.20	$ 43.80	$ 6.92
105	$ 772.80	$ 717.20	$ 55.60	$ 6.83
110	$ 809.60	$ 742.20	$ 67.40	$ 6.75
115	$ 846.40	$ 767.20	$ 79.20	$ 6.67
120	$ 883.20	$ 792.20	$ 91.00	$ 6.60

Taken together, this analysis shows that low-level users generally will be expected to subsidize the high-level users. Even low-level non-residential users will be subsidizing high-level residential users.

If a system of subsidies is what the City Council wants, then they should at least be honest enough with the public to make it clear that they have been and are again proposing to impose an inequitable system on their constituents.