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**TO:** CITY MANAGER **DATE:** 2007 November 27  
**FROM:** DIRECTOR FINANCE **FILE:** 39500 01  
**SUBJECT:** WATERWORKS UTILITY RATES FOR 2008  
**PURPOSE:** To obtain Council approval for 2008 Water Rates

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**RECOMMENDATION:**

1. **THAT** Burnaby Waterworks Regulation Bylaw be amended to provide for the water rates contained in Schedule A, effective 2008 January 01 including the additional amendments as outlined in this report.
2. **THAT** sections 17 and 18 of the Burnaby Waterworks Regulation Bylaw be amended to provide for greater flexibility for the Collector to determine the estimation of consumption.
3. **THAT** Burnaby Waterworks Regulation Bylaw be amended to reflect current staff positions and terminology.

**SUMMARY**

This is the annual waterworks utility report that reviews revenues and expenditures of the utility and proposed water rates for 2008.

This report proposes a general rate increase of 11.00% for flat and metered water rates. The general rate increase is required to offset the increase in the cost of water, to pay for Burnaby's share of the water quality upgrades being constructed by the Greater Vancouver Water District (GVWD) and for the replacement of aging infrastructure. The proposed rate adjustments will ensure that the water utility continues to be financially self sustaining.

Utility charges are collected separately from property taxes and will be due 2008 March 17. To promote payment by the due date, Burnaby offers a 5% discounted rate for payment on or before 2008 March 17.

The Director Engineering concurs with the recommendation in this report.

**REPORT**

**1. INTRODUCTION**

Residential users are charged a flat annual rate for water. The 2008 proposed rate for a single family home is \$324.33 if paid by the due date. This charge is levied separately from property taxes and is due mid March of each year. Staff reviews water rates annually to reflect changes in revenue and expenditures and to ensure the waterworks utility continues to be financially self supporting.

**2. PROJECTED EXPENDITURES AND REVENUES**

Schedule A *attached* provides the estimates of expenditures and revenues for 2008 with the proposed rate increase outlined below.

***EXPENDITURES***

The projected cost increase in 2008 is approximately 16.4% reflecting an increase in the supply cost of water from the GVWD and replacement of aging infrastructure.

The GVWD supplies water to Burnaby and other communities in the region. Burnaby pays for this water on the basis of volume (cubic metres) used. Currently, the GVWD supplies water to Burnaby at a blended rate of 34.45 cents per cubic metre (or 37.94 cents during the peak period of June to September, and 32.71 cents for the remaining months in 2007). The projected blended rate increase for 2008 is 9.35%, from 34.45 to 37.67 cents per cubic metre. The increased costs will provide for the GVWD's Drinking Water Quality Improvement Plan which includes continued construction of a new filtration plant for the Capilano and Seymour Water sources.

In addition to the 2008 increase, it is estimated that the total cost of water to Burnaby will increase by about 40% over the next four years. The long term increases are necessary to finance the phased construction and operational costs of the new treatment facilities. Schedule B *attached* summarizes the projected increase in the cost of water to Burnaby. The GVWD's proposed rate per cubic metre is subject to review by the GVWD Board. The review may result in a change in the total cost of water to Burnaby from the current projection.

The City has committed to the goal of replacing all the asbestos cement watermains in the City which are at the end of their useful life. Through the annual replacement program, the City has made significant progress in replacing these aging pipes. Currently there are approximately 170 km of asbestos cement pipes remaining in the system and the present replacement rate is approximately 8 km to 10 km per year which will take another 17 to 20 years to complete the asbestos cement pipe replacement program. In addition to construction cost escalation and replacement of asbestos cement pipes, the City will need to make provisions for the replacement of aging pumping stations to meet current and future growth related demands within the next 10 years. The replacement of this infrastructure is costly and contributes to the overall water rate increase.

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**REVENUE**

It has been Council's objective that the waterworks utility be financially self sustaining. This is accomplished on a user pay basis. Water rates are reviewed annually and rate increases are, where necessary, recommended to Council.

Water charges have increased since 1997 at the following rate:

1997	11.00%	
1998	9.50%	
1999	7.00%	
2000	3.50%	
2001	5.00%	
2002	5.50%	
2003	6.00%	
2004	6.00%	
2005	9.25%	
2006	9.25%	
2007	9.25%	
<b>2008</b>	<b>11.00%</b>	<b>Proposed</b>

This report proposes an 11.00% increase to flat and metered water rates. The proposed rates will increase the utility bill for a single family home by \$32.14 from \$292.19 to \$324.33 if payment is made by the due date. Schedule C *attached* shows current and proposed 2008 rates for Burnaby.

**3. INCENTIVE FOR ON TIME PAYMENT OF FLAT AND METERED RATES**

In 1994, Burnaby commenced collecting utility charges separately from property taxes. Collection of utility charges in March provides investment income that serves to decrease the amount of taxes levied. Burnaby offers a 5% discounted rate for payment on or before the due date. On a single family home the flat water rate for people who pay on or before 2008 March 17 would be \$324.33. The rate of payment after 2008 March 17 would be \$341.40.

Burnaby offers metered water users a discounted rate on payments made within 30 days of the billing date on the metered water bill. The discounted rate for metered users is also 5% less than the non-discounted rate.

**4. AMENDMENTS TO WATERWORKS REGULATION BYLAW 3325**

Sections 17 and 18 of the Burnaby Waterworks Regulation Bylaw needs to be amended to provide for greater flexibility for the Collector to determine whether the estimation of consumption should be based on the previous six months prior to a meter failure or stoppage, or based on the same time period in the previous year. Changes are also necessary to include seasonal variations or changes in occupancy or other factors for properties that do not always have consistent consumption year round.

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It is recommended that sections 17 and 18 be amended to read the same or similar to the following:

17. Every consumer having a metered service shall pay for the full amount of water as registered by the meter at the rate set out in Schedule 'A', and no reduction shall be allowed on account of any waste of water, unless it be shown to the satisfaction of the Engineer that such waste arose from an accident to the pipes or fittings on the land of the consumer and that such accident was beyond the control of said consumer and unless it be further shown that said consumer used all reasonable diligence to stop such waste. If the Engineer decides that a reduction should be made, the Collector shall estimate the consumption and render a bill based on the average previous consumption adjusted to take into account seasonal variations, changes in occupancy, or other factors, which, in the opinion of the Collector, may affect the consumption of water. The average shall be paid at the rate shown in Schedule 'A' and to which shall be added, the cost to the City of the quantity registered by the meter in excess of that average.
18. If any meter stops or fails to indicate correctly, the quantity of water passing through it, the City shall be entitled to charge for such water according to the average consumption for the six months preceding the date upon which such meter was last found to be in order, or be entitled to charge for such water based on same time period in the previous year.

In addition to changes in sections 17 and 18, it is also recommended that housekeeping amendments be made to have conformity of language within the bylaws. It is recommended that "Treasurer" be changed to "Collector" and "District of Burnaby" be changed to "City of Burnaby", and other minor language changes be made.

**5. PUBLIC NOTICE**

Once approved by Council, a general notice informing users of the rate increase will be placed in a local newspaper and *InfoBurnaby*. Metered users will be notified by letter.



Rick Earle  
DIRECTOR FINANCE

RAE: rt  
Attach.

cc: Director Engineering  
City Solicitor

**WATERWORKS - OPERATING BUDGET**

**SCHEDULE A**

2006 Actual	2007 Forecast	2007 Annual	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017	
			Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
12,127,652	13,027,185	14,943,720	16,064,500	19,297,200	20,519,600	21,369,300	22,489,900	23,866,200	24,999,800	26,316,500	27,504,200	28,904,300	30,200,000	31,488,000	32,866,000	34,244,000	35,622,000	37,000,000	38,378,000	39,756,000	41,134,000	42,512,000
4,022,982	3,923,420	4,443,490	4,717,345	4,966,690	5,229,640	5,506,290	5,797,570	6,104,260	6,427,170	6,767,170	7,125,150	7,502,070	7,889,000	8,276,000	8,663,000	9,050,000	9,437,000	9,824,000	10,211,000	10,598,000	10,985,000	11,372,000
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9,290,000	9,500,000	9,500,000	12,568,000	13,068,000	14,374,800	15,812,280	17,393,508	19,132,859	21,046,145	23,150,759	25,465,835	28,012,419	30,767,000	33,622,000	36,577,000	39,532,000	42,487,000	45,442,000	48,397,000	51,352,000	54,307,000	57,262,000
1,123,539	1,300,000	1,300,000	1,366,130	1,516,400	1,683,210	1,868,360	2,073,880	2,302,010	2,555,230	2,836,300	3,148,300	3,494,610	3,881,000	4,307,000	4,762,000	5,247,000	5,762,000	6,307,000	6,882,000	7,487,000	8,122,000	8,787,000
1,569,809	2,391,988	450,000	970,070	750,000	800,000	850,000	910,000	980,000	1,050,000	1,120,000	1,200,000	1,290,000	1,380,000	1,470,000	1,560,000	1,650,000	1,740,000	1,830,000	1,920,000	2,010,000	2,100,000	2,190,000
28,133,982	31,112,663	30,637,210	35,686,045	39,598,490	42,607,250	45,406,230	48,664,858	52,405,329	56,431,810	62,636,560	69,523,830	77,168,700	85,763,000	95,358,000	106,053,000	117,948,000	131,043,000	145,438,000	161,133,000	178,228,000	196,723,000	216,618,000

**EXPENDITURE**

Cost of water	12,127,652	13,027,185	14,943,720	16,064,500	19,297,200	20,519,600	21,369,300	22,489,900	23,866,200	24,999,800	26,316,500	27,504,200	28,904,300	30,200,000	31,488,000	32,866,000	34,244,000	35,622,000	37,000,000	38,378,000	39,756,000	41,134,000	42,512,000
Transmission, distribution & pumping	4,022,982	3,923,420	4,443,490	4,717,345	4,966,690	5,229,640	5,506,290	5,797,570	6,104,260	6,427,170	6,767,170	7,125,150	7,502,070	7,889,000	8,276,000	8,663,000	9,050,000	9,437,000	9,824,000	10,211,000	10,598,000	10,985,000	11,372,000
Long term debt (paid down 1999)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contribution to capital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cont. to Equipment Replacement Reserve (Equip. Charge-Out)	9,290,000	9,500,000	9,500,000	12,568,000	13,068,000	14,374,800	15,812,280	17,393,508	19,132,859	21,046,145	23,150,759	25,465,835	28,012,419	30,767,000	33,622,000	36,577,000	39,532,000	42,487,000	45,442,000	48,397,000	51,352,000	54,307,000	
Discount	1,123,539	1,300,000	1,300,000	1,366,130	1,516,400	1,683,210	1,868,360	2,073,880	2,302,010	2,555,230	2,836,300	3,148,300	3,494,610	3,881,000	4,307,000	4,762,000	5,247,000	5,762,000	6,307,000	6,882,000	7,487,000	8,122,000	
Contingency	1,569,809	2,391,988	450,000	970,070	750,000	800,000	850,000	910,000	980,000	1,050,000	1,120,000	1,200,000	1,290,000	1,380,000	1,470,000	1,560,000	1,650,000	1,740,000	1,830,000	1,920,000	2,010,000	2,100,000	
Surplus generated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>TOTAL</b>	<b>28,133,982</b>	<b>31,112,663</b>	<b>30,637,210</b>	<b>35,686,045</b>	<b>39,598,490</b>	<b>42,607,250</b>	<b>45,406,230</b>	<b>48,664,858</b>	<b>52,405,329</b>	<b>56,431,810</b>	<b>62,636,560</b>	<b>69,523,830</b>	<b>77,168,700</b>	<b>85,763,000</b>	<b>95,358,000</b>	<b>106,053,000</b>	<b>117,948,000</b>	<b>131,043,000</b>	<b>145,438,000</b>	<b>161,133,000</b>	<b>178,228,000</b>	<b>196,723,000</b>	<b>216,618,000</b>

**GROSS REVENUES/TRANSFERS**

Fee increase - flat rates	15,752,932	17,568,807	16,053,440	19,501,380	21,646,530	24,027,650	26,670,690	29,604,470	32,860,960	36,475,670	40,487,990	44,941,670	49,885,250	55,329,000	61,273,000	67,717,000	74,661,000	82,105,000	90,049,000	98,493,000	107,437,000	116,881,000	126,825,000
Fee increase - metered rates	9,066,475	9,600,000	9,414,240	10,656,000	11,828,160	13,129,260	14,573,480	16,176,560	17,955,980	19,931,140	22,123,570	24,557,160	27,258,450	30,219,000	33,440,000	36,921,000	40,662,000	44,673,000	48,954,000	53,505,000	58,326,000	63,407,000	68,748,000
Metered rates	82,075	64,651	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Connection fees	42,800	34,675	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000
Construction - Metered Charges	68,120	3,844,530	3,844,530	5,503,665	6,098,800	5,425,340	4,137,060	2,858,828	1,563,389	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction - Flat Rate Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Draw on previous year's surplus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>31,112,663</b>	<b>31,112,663</b>	<b>29,337,210</b>	<b>35,686,045</b>	<b>39,598,490</b>	<b>42,607,250</b>	<b>45,406,230</b>	<b>48,664,858</b>	<b>52,405,329</b>	<b>56,431,810</b>	<b>62,636,560</b>	<b>69,523,830</b>	<b>77,168,700</b>	<b>85,763,000</b>	<b>95,358,000</b>	<b>106,053,000</b>	<b>117,948,000</b>	<b>131,043,000</b>	<b>145,438,000</b>	<b>161,133,000</b>	<b>178,228,000</b>	<b>196,723,000</b>	<b>216,618,000</b>

Operating surplus	13,866,055	13,385,583	10,473,525	8,851,988	3,503,188	-1,122,152	-4,409,212	-6,358,040	-6,941,429	-5,537,963	-1,972,133	4,308,212	13,563,514	23,017,000	32,471,000	41,925,000	51,379,000	60,833,000	70,287,000	79,741,000	89,195,000	98,649,000	108,103,000	117,557,000
<b>Rate increase</b>	<b>9.25%</b>	<b>9.25%</b>	<b>9.25%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	<b>11.00%</b>	

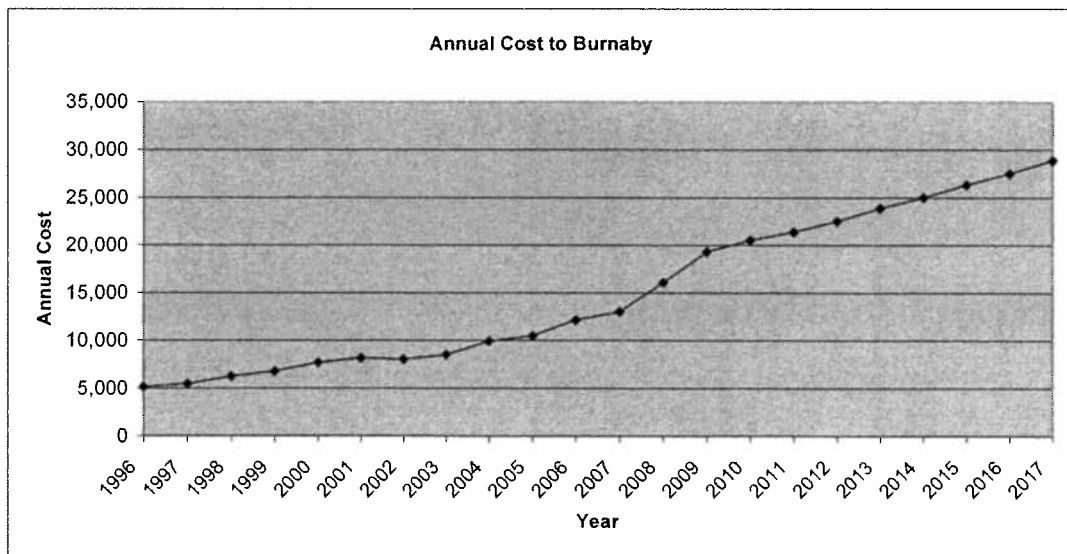
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**COST OF WATER SUPPLIED TO BURNABY BY THE G.V.R.D.**

**SCHEDULE B**

Year	Rate Per Cubic Meter						Total volume (2) purchased 000 M³		Annual Cost to Burnaby	Increase in total cost of water to Burnaby from previous year	
	Cost/M³		Increase from previous year								
	Off-Peak	Peak	\$		%		Off-Peak	Peak	000 \$	000 \$	%
			Off-Peak	Peak	Off-Peak	Peak					
1996	0.1262		0.0113	N/A	9.8		40,805		5,150	462	9.9
1997	0.1394		0.0269	N/A	21.3		39,108		5,452	302	5.9
1998	0.1513		0.0119	N/A	8.5		41,362		6,258	806	14.8
1999	0.1644		0.0131	N/A	8.7		41,104		6,757	499	8.0
2000	0.1778		0.0134	N/A	8.2		43,148	(3)	7,672	(3) 914	13.5
2001	0.1881		0.0103	N/A	5.8		43,366	(3)	8,157	(3) 485	6.3
2002	0.1893		0.0012	N/A	0.6		42,415	(3)	8,029	(3) -128	-1.6
2003	0.1968		0.0075	N/A	4.0		43,320		8,526	497	6.2
2004	0.2234		0.0266	N/A	13.5		44,320		9,901	1,375	16.1
2005	0.2502		0.0268	N/A	12.0		41,875		10,477	576	5.8
2006	0.2818	0.3044	0.0316	N/A	12.6		24,050	17,574	12,127	1,650	15.7
2007	0.3271	0.3794	0.0453	0.0750	16.1	24.6	21,406	15,881	13,027	900	7.4
2008	0.3477	0.4347 (1)	0.0206	0.0553	6.3	14.6	25,570	16,503	16,065	3,037	23.3
2009	0.4026	0.5032 (1)	0.0549	0.0685	15.8	15.8	26,530	17,123	19,297	3,233	20.1
2010	0.4248	0.5309 (1)	0.0222	0.0277	5.5	5.5	26,737	17,257	20,520	1,222	6.3
2011	0.4418	0.5522 (1)	0.0170	0.0213	4.0	4.0	26,772	17,279	21,369	850	4.1
2012	0.4538	0.5672 (1)	0.0120	0.0150	2.7	2.7	27,431	17,704	22,490	1,121	5.2
2013	0.4731	0.5914 (1)	0.0193	0.0242	4.3	4.3	27,944	18,035	23,886	1,396	6.2
2014	0.4850	0.6063 (1)	0.0119	0.0149	2.5	2.5	28,529	18,412	25,000	1,114	4.7
2015	0.5003	0.6254 (1)	0.0153	0.0191	3.2	3.2	29,113	18,790	26,316	1,317	5.3
2016	0.5111	0.6389 (1)	0.0108	0.0135	2.2	2.2	29,784	19,223	27,504	1,188	4.5
2017	0.5290	0.6613 (1)	0.0179	0.0224	3.5	3.5	30,241	19,518	28,904	1,400	5.1
Increase 1996 - 2006			0.1806	N/A	145.3	N/A				7,439	158.7
Projected increase 2007 - 2017			0.2472	0.3569	87.7	117.2				16,778	138.4

NOTES: (1) 2008-2016 unit costs are based on GVRD's 2007 Financial Information long range projection, 2017 unit cost is based on average increase in unit costs from 2007 to 2016.  
 (2) Total volume of water purchased by Burnaby from the Greater Vancouver Water District. 1991 to 2006 are actual volumes, 2007 based on Forecasted Actual, and 2008 to 2017 are projections based on information provided by GVRD.  
 (3) 2000, 2001 and 2002 volume and annual costs have been adjusted for errors in meter readings from October 2000 to September 2001.



**WATER RATES**

**SCHEDULE C**

	2006		2007		PROPOSED	
	Paid by Mar. 15	Paid after Mar. 15	Paid by Mar. 15	Paid after Mar. 15	2008 Paid by Mar. 17	2008 Paid after Mar. 17
	\$	\$	\$	\$	\$	\$
<b><u>FLAT RATES</u></b>						
Detached single family	267.45	281.53	292.19	307.57	324.33	341.40
Single family within duplex	200.55	211.11	219.11	230.64	243.21	256.01
Single family within multiple	153.58	161.66	167.78	176.61	186.24	196.04
Commercial not more than 3 stores/offices						
Commercial and living quarters, 1 family	534.91	563.06	584.38	615.14	648.67	682.81
Commercial and no living quarters	267.45	281.53	292.19	307.57	324.33	341.40
<b><u>CROSS CONNECTION CONTROLS **</u></b>						
Per Device	28.01	29.48	28.57	30.07	29.14	30.67
Minimum Per Unit	3.50	3.68	3.56	3.75	3.64	3.83
<b><u>METERED RATES</u></b>						
		Non-Discout		Non-Discout		Non-Discout
<b>Monthly</b>						
First 300 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Next 550 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Next 1,400 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Over 12,000 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Minimum monthly	22.29	23.46	24.35	25.63	27.03	28.45
<b>Quarterly</b>						
First 900 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Next 1,650 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Next 4,200 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Over 36,000 cubic metres	0.709	0.746	0.774	0.815	0.860	0.905
Minimum quarterly	66.86	70.38	73.05	76.89	81.08	85.35
<b><u>SPECIAL METER READING</u></b>	\$25.00 per request		\$25.00 per request		\$25.00 per request	
<b><u>CONSTRUCTION WATER</u></b>						
3/4" connection	\$1,000 per six months		\$1,000 per six months		\$1,000 per six months	
1" connection	\$1,650 per six months		\$1,650 per six months		\$1,650 per six months	
2" connection	\$2,500 per six months		\$2,500 per six months		\$2,500 per six months	
<b><u>CONNECTION FEE</u></b>						
Connection fee 19mm and less						
<b>General Rate increase</b>	9.25%	9.25%	9.25%	9.25%	11.00%	11.00%
<b>Cross Connection Control Rate increase **</b>	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

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15-Nov-07  
File: 39500 01