

TOWN OF BELLINGHAM

OFFICE OF THE
DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS

MEMO

Date: January 14, 2010
To: Board of Selectmen, Denis Fraine, Marilyn Mathieu
From: Donald F. DiMartino, DPW Director
RE: Rate Review - Fiscal Year 2011 (WATER & SEWER)

It is once again that time of year. We have completed a calendar year so have information about last year's water and sewer usage by our customers; we have prepared a budget for the upcoming fiscal year, and have six months of revenue derived from the current fiscal year's rates.

Unfortunately, I will be recommending a rate increase for both water and sewer. The increase is not based on some huge change in the funds we need to operate our systems, but it is on the huge reduction in usage and therefore a drop in revenue. You may recall that I have been concerned for a while about the financial impact of mandated use restrictions, they are here. FY2010 Water and Sewer Revenue is way off due to the 2009 use restriction and very wet summer. 2009 Water billing consumption is down 36 million gallons 9% (revenue is off \$95,000 Y-T-D); Sewer billing consumption is down 8 million gallons 7% (revenue off \$32,000 Y-T-D).

The DPW will cut all expenditures to bare necessities from now until the end of the fiscal year, but right now it appears both water and sewer surplus fund transfers will be needed in May to match costs to revenue. The good news is that it appears we have enough in the surplus accounts to bail us out in 2010.

The rate change proposal sheets are attached. There are two sheets for each for the Water and Sewer and another set that is Water with and annual Capital Commitment of \$400,000. *(A capital plan and therefore commitment was suggested by the Board last year. I have prepared a capital plan with a wish list total of projects totaling \$12.0 Million. Of that list \$8.0 Million are vital projects and \$4.0 Million not as vital. I selected the \$400,000 annual commitment by simply dividing \$8.0 Million by 20 years.)*

The landscape sheet for each shows what I recommend to get revenue to match the FY2011 budget (budget with capital commitment). On this sheet you will see the projections for Service Charge and Consumption Charge. There is a line that shows the FY2010 projected year end revenues for each charge. The Service Charge (Fixed Costs) is based on size of the service meter and the Consumption Charge (Flow Related Costs) based on water that passes through the meter. Budget line items are split into one of these two categories per standard accounting procedures.

The portrait sheets show rate history over the last few years and proposed rates on top, followed by an analysis of the impact of the proposed changes on the Minimal User and the Average Residential User. At the bottom of the sheet is a State Wide Rate Comparison, which utilizes the published Tighe and Bond 2009 water and sewer rate survey. A copy of the summary pages of the Tighe & Bond surveys is also attached.

These proposed rate changes are an attempt to put our revenue generation system in a position where we bring in the funds needed to meet the budget needs as is the goal of an enterprise system. I have made the assumption that Calendar 2009 is our lowest likely consumption. I think it is a reasonable assumption as we had a use restriction in place and terribly wet spring and summer. I believe the weather had a greater impact than the use restriction; no one is going to water their lawn even if only two days a week if it rains nearly every day. If consumption drops further, future rate increases will be needed above typical cost of living increases.

The process will be discussion Tuesday night followed by scheduling and advertising of a hearing at which revised rates would be approved and effective July 1, 2010.

Sewer FY2011 Revenue - Expense

Service Charge

	# of Meters	Annual \$ Per Meter	Total
	1529	\$ 142	217,118
	6	\$ 180	1,080
	9	\$ 235	2,115
	12	\$ 375	4,500
	1	\$ 1,415	1,415
	2	\$ 1,800	3,600
Projected Sewer Service Charge Projected Revenue		(See Table)	\$ 229,828
Projected FY2010 Annual Sewer Service Charge Projected Revenue			\$ 228,800

Consumption Charge

Projected Sewer Flow	109,086	k-gallons
Sewer Rate	\$ 5.30	per k-gallon
Projected Sewer Consumption Charge Projected Revenue		\$ 578,156
Projected Annual FY2010 Sewer Consumption Charge Projected Revenue		\$ 495,870

Total Projected Sewer Revenue	\$ 807,984
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Sewer Budget FY2011	\$ 806,965
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**Town of Bellingham
Sewer Rate Study
1/13/2010**

Administrative Charge

Meter Size	Initiated FY 2008	No Change FY 2009	Revised FY 2010	No Change FY 2011
5/8 - 3/4	128.00	128.00	142.00	142.00
1	161.00	161.00	180.00	180.00
1 1/2	207.00	207.00	235.00	235.00
2	334.00	334.00	375.00	375.00
3	1,265.00	1,265.00	1,415.00	1,415.00
4	1,610.00	1,610.00	1,800.00	1,800.00

Consumption Based Charge

Semi Annual Water Billing	FY08 Rates	3% Increase FY09 Rates	xx Increase FY10 Rates	Proposed FY11 Rates
All Usage One Block	\$ 4.15	\$ 4.15	\$ 4.80	\$ 5.30

Minimal User (201 Customers - 13.7%)				Annual Below 24K	Usage Gallons	
Current						
Admin				\$ 142.00		
Block 1	Annual Usage	24,000	\$ 4.80	\$ 115.20		
				\$ 257.20		
Proposed Rates						
Admin					\$ 142.00	
Block 1	Annual Usage	24,000		\$ 5.30	\$ 127.20	
					\$ 269.20	
				Annual	Increase	\$ 12.00
					% Increase	4.7%

Average Residential User				Annual Below 90K	Usage Gallons	
Current						
Admin				\$ 142.00		
	Annual Usage	90,000	\$ 4.80	\$ 432.00		
				\$ 574.00		
Proposed Rates						
Admin					\$ 142.00	
	Annual Usage	90,000		\$ 5.30	\$ 477.00	
					\$ 619.00	
				Annual	Increase	\$ 45.00
					% Increase	7.8%

State Wide Rate Survey Comparison

(Tighe & Bond, Inc 2009 Survey)

Massachusetts Average 2009 Sewer bill per household	\$ 584
Percentage Increase from 2006 to 2009	19.4%
Annual Projected Mass Average Increase	6.5%
Projected Massachusetts Average 2011 Sewer bill per household	\$ 622
Proposed Annual FY11 Average - 2011 Projected State Average	\$ 2.77

Water FY2011 Rev-Exp w Capital

Annual Capital Investment (Surplus)	\$ 400,000
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<u>Service Charge</u>	# of Meters	Annual \$ Per Meter	Total
	5661	\$ 76	430,236
	44	\$ 100	4,400
	18	\$ 124	2,232
	27	\$ 200	5,400
	6	\$ 760	4,560
	2	\$ 970	1,940
Projected FY2011 Annual Water Service Charge Projected Revenue			\$ 448,768
Projected FY2010 Annual Water Service Charge Projected Revenue			\$ 436,435

<u>Consumption Charge</u>	Kgals	Rates/Kgal	
Total Projected Water Flow Annual (Calendar 09)	379,577		
Block 1 (0 to 12,000 gal Semi Annual)	130,342	4.20	547,437.58
Block 2 (12,000- 50,000 gal Semi Annual)	193,462	5.30	1,025,350.40
Block 3 (Over 50,000 gal Semi Annual)	55,772	6.40	356,941.57
Projected Annual FY 2011 Water Consumption Charge Projected Revenue			\$ 1,929,730
Projected Annual FY2010 Water Consumption Charge Projected Revenue			\$ 1,155,800

Projected Annual Water Fee Revenue (typical)	\$ 144,285
Projected Annual Water Abatements (typical)	\$ (75,668)

Total Projected Water Revenue FY2011	\$ 2,447,115
Water Budget Requested FY2011	\$ 2,110,739
Annual Capital Investment (Surplus)	\$ 400,000
Revenue Target FY2011	\$ 2,510,739

**Town of Bellingham
Water Rate Study
1/13/2010**

Annual Capital Investment (Surplus) \$ 400,000

Administrative Charge

Meter Size	No Change			Proposed
	FY 2008	FY 2009	FY 2010	FY 2011
5/8 - 3/4	\$ 74.00	\$ 74.00	\$ 74.00	\$ 76.00
1	\$ 94.00	\$ 94.00	\$ 94.00	\$ 100.00
1 1/2	\$ 121.00	\$ 121.00	\$ 121.00	\$ 124.00
2	\$ 195.00	\$ 195.00	\$ 195.00	\$ 200.00
3	\$ 737.00	\$ 737.00	\$ 737.00	\$ 760.00
4	\$ 938.00	\$ 938.00	\$ 938.00	\$ 970.00

Consumption Based Charge

Semi Annual Water Billing	3% Increase			Proposed
	FY08 Rates	FY09 Rates	FY10 Rates	FY11 Rates
Tier 1, 0 - 12,000 gallons	\$ 2.52	\$ 2.60	\$ 2.60	\$ 4.20
Tier 2, 12,000 - 50,000 Gallons	\$ 3.16	\$ 3.25	\$ 3.25	\$ 5.30
Tier 3, Greater than 50,000 Gallons	\$ 4.15	\$ 4.27	\$ 4.27	\$ 6.40

Minimal User (839 Customers - 14.6%)				Annual Below 24K	Usage Gallons
Current					
Admin				\$ 74.00	
Block 1	Annual Usage	24,000	\$ 2.60	\$ 62.40	
				<u>\$ 136.40</u>	
Proposed Rates					
Admin					\$ 76.00
Block 1	Annual Usage	24,000		\$ 4.20	\$ 100.80
					<u>\$ 176.80</u>
			Annual	Increase	\$ 40.40
				% Increase	29.6%

Average Residential User				Annual Below 90K	Usage Gallons
Current					
Admin				\$ 74.00	
Block 1	Annual Usage	24,000	\$ 2.60	\$ 62.29	
Block 2	Annual Usage	66,000	\$ 3.25	\$ 214.82	
	Annual Usage	90,000		<u>\$ 351.11</u>	
Proposed Rates					
Admin					\$ 76.00
Block 1	Annual Usage	24,000		\$ 4.20	\$ 100.80
Block 2	Annual Usage	66,000		\$ 5.30	\$ 349.80
	Annual Usage	90,000			<u>\$ 526.60</u>
			Annual	Increase	\$ 175.49
				% Increase	50.0%

State Wide Rate Survey Comparison		(Tighe & Bond, Inc 2009 Survey)
Massachusetts Average 2009 Water bill per household		\$ 426
Percentage Increase from 2006 to 2009		16.8%
Annual Projected Mass Average Increase		5.6%
Projected Massachusetts Average 2011 Water bill per household		\$ 450
Proposed Annual FY11 Average - 2011 Projected State Average		\$ 76.74

No blocks - Cost of water after Administration Cost separated = \$5.13 /1,000 Gals

Water FY2011 Revenue - Exp

Service Charge

	# of Meters	Annual \$ Per Meter	Total
	5661	\$ 76	430,236
	44	\$ 100	4,400
	18	\$ 124	2,232
	27	\$ 200	5,400
	6	\$ 760	4,560
	2	\$ 970	1,940
Projected Fy 2011 Water Service Charge Projected Revenue			\$ 448,768
Projected FY2010 Annual Water Service Charge Projected Revenue			\$ 436,435

Consumption Charge

	379,577	Rates/Kgal	k-gallons
Total Projected Water Flow			
Block 1 (0-12,000 gal Semi Annual)	130,342	3.30	430,129.52
Block 2 (12,000- 50,000 gal Semi Annual)	193,462	4.40	851,234.30
Block 3 (Over 50,000 gal Semi Annual)	55,772	5.50	306,746.66
Projected FY2011 Water Consumption Charge Projected Revenue			\$ 1,588,110
Projected Annual FY2010 Water Consumption Charge Projected Revenue			\$ 1,155,800
Projected Annual Water Fee Revenue (typical)			\$ 144,285
Projected Annual Water Abatements (typical)			\$ (75,668)

Total Projected FY2011 Water Revenue	\$ 2,105,496
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Water Budget FY2011	\$ 2,110,739
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**Town of Bellingham
Water Rate Study
1/13/2010**

Administrative Charge

Meter Size	FY 2008	No Change FY 2009	No Change FY 2010	Proposed FY 2011
	5/8 - 3/4	\$ 74.00	\$ 74.00	\$ 74.00
1	\$ 94.00	\$ 94.00	\$ 94.00	\$ 100.00
1 1/2	\$ 121.00	\$ 121.00	\$ 121.00	\$ 124.00
2	\$ 195.00	\$ 195.00	\$ 195.00	\$ 200.00
3	\$ 737.00	\$ 737.00	\$ 737.00	\$ 760.00
4	\$ 938.00	\$ 938.00	\$ 938.00	\$ 970.00

Consumption Based Charge

Semi Annual Water Billing	FY08 Rates	3% Increase FY09 Rates	No Change FY10 Rates	Proposed FY11 Rates
	Tier 1, 0 - 12,000 gallons	\$ 2.52	\$ 2.60	\$ 2.60
Tier 2, 12,000 - 50,000 Gallons	\$ 3.16	\$ 3.25	\$ 3.25	\$ 4.40
Tier 3, Greater than 50,000 Gallons	\$ 4.15	\$ 4.27	\$ 4.27	\$ 5.50

Minimal User (839 Customers - 14.6%)				Annual Below 24K	Usage Gallons
Current					
Admin				\$ 74.00	
Block 1	Annual Usage	24,000	\$ 2.60	\$ 62.40	
				<u>\$ 136.40</u>	
Proposed Rates					
Admin					\$ 76.00
Block 1	Annual Usage	24,000	\$ 3.30	\$ 79.20	
					<u>\$ 155.20</u>
			Annual	Increase	\$ 18.80
				% Increase	13.8%

Average Residential User				Annual Below 90K	Usage Gallons
Current					
Admin				\$ 74.00	
Block 1	Annual Usage	24,000	\$ 2.60	\$ 62.29	
Block 2	Annual Usage	66,000	\$ 3.25	\$ 214.82	
		<u>90,000</u>		<u>\$ 351.11</u>	
Proposed Rates					
Admin					\$ 76.00
Block 1	Annual Usage	24,000	\$ 3.30	\$ 79.20	
Block 2	Annual Usage	66,000	\$ 4.40	\$ 290.40	
		<u>90,000</u>			<u>\$ 445.60</u>
			Annual	Increase	\$ 94.49
				% Increase	26.9%

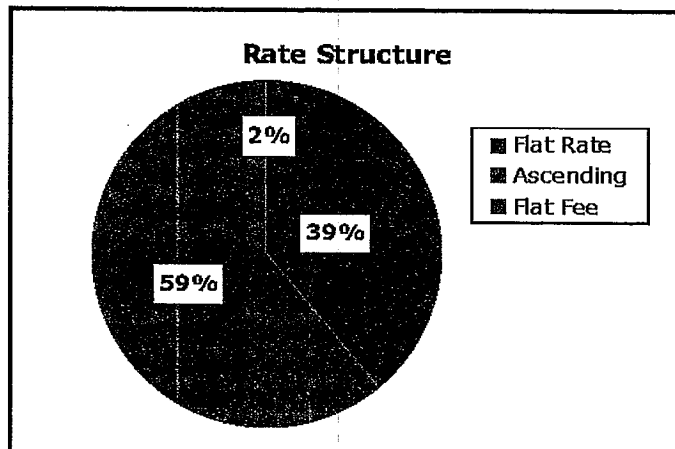
State Wide Rate Survey Comparison		(Tighe & Bond, Inc 2009 Survey)
Massachusetts Average 2009 Water bill per household		\$ 426
Percentage Increase from 2006 to 2009		16.8%
Annual Projected Mass Average Increase		5.6%
Projected Massachusetts Average 2011 Water bill per household		\$ 450
Proposed Annual FY11 Average - 2011 Projected State Average		\$ (4.26)

No blocks - Cost of water after Administration Cost separated = \$4.13 /1,000 Gals

Tighe & Bond is pleased to publish our 2009 "Water Rate Survey" for communities in Massachusetts. The survey summarizes information from the following sources:

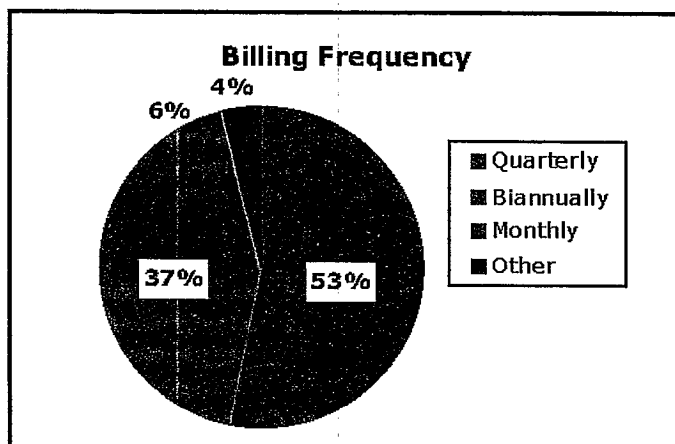
- written survey responses
- our extensive database of rate information for our existing clients
- the 2008 Annual Water & Sewer Retail Rate Survey published by The Massachusetts Water Resources Authority (MWRA) Advisory Board
- telephone surveys
- City and Town websites

Our written survey was mailed to all communities in Massachusetts. Approximately 79% of communities in Massachusetts have public water supply. About 61% of the communities use groundwater as their primary water source, with the remaining 39% relying on surface water sources.



A variety of different **rate structures** are used throughout the Commonwealth. Based on the written survey results, 39% of communities use a flat rate structure; 59% use an ascending rate structure and only 2% use a flat fee. To allow for a comparative analysis, we have calculated the "typical" yearly homeowner's cost assuming consumption of 120 hundred cubic feet (90,000 gallons) per year. Based on the information included in this survey, typical annual water costs in Massachusetts range from a low of \$113 per household to a high of over \$1,962! The 2009 average is \$426 per household, representing an increase of 16.8% over 2006 averages.

The majority of respondents to the written survey use either a quarterly billing cycle (53%) or a biannual billing cycle (37%). Six percent use a monthly billing cycle, and the remainder use either an annual, bimonthly, or tri-annual frequency. Of those communities responding to the written survey 18% stated that they have a separate rate structure for businesses and 19% provide elderly discounts. Five percent of communities report that they offer an early payment discount, 5% provide separate seasonal and 9% provide low-income rates.



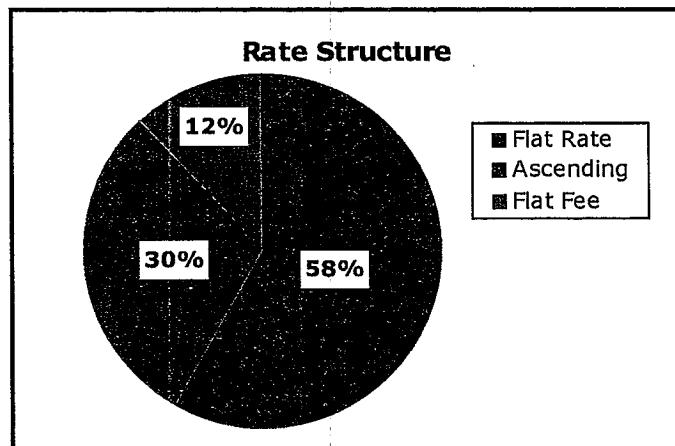
Tighe & Bond would like to thank all public water suppliers for their participation in this survey. Comparisons of water rate structures and resulting typical homeowner's costs can be difficult given the wide variety of user charge methods in use. If we have incorrectly interpreted information for any community please let us know and we will make appropriate corrections. Questions, comments or suggestions are certainly welcome. Please contact Mary Beth Morris, P.E. at (413) 572-3247 for further information.

Tighe & Bond has been providing consulting engineering services to state and local government entities for decades. An adequate, good quality drinking water supply is essential for every community. Tighe & Bond provides a wide range of water resources services, from identifying needs and evaluating supplies to engineering new sources, treatment facilities and storage and distribution systems. Tighe & Bond also provides expertise in wastewater and residuals management, civil engineering and solid and hazardous waste management.

Tighe & Bond is pleased to publish our 2009 "Sewer Rate Survey" for communities in Massachusetts. The survey summarizes information from the following sources:

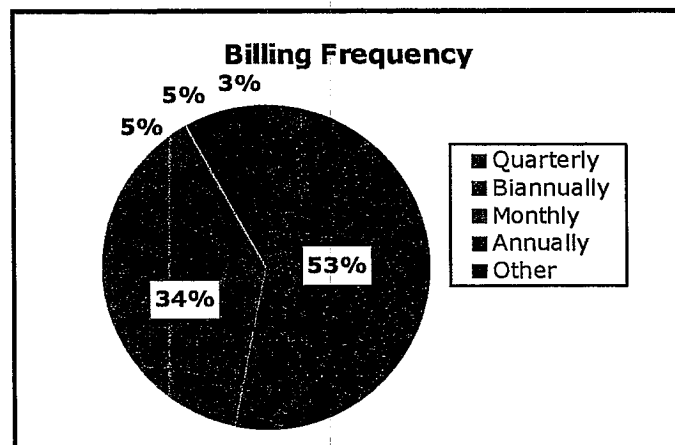
- written survey responses
- our extensive database of rate information for our existing clients
- the 2008 Annual Water & Sewer Retail Rate Survey published by The Massachusetts Water Resources Authority (MWRA) Advisory Board
- telephone surveys
- City and Town websites

Our written survey was mailed to all communities in Massachusetts. Based on the information contained in this survey, 59% of Massachusetts communities provide some level of public sewerage service.



A variety of different **rate structures** are used throughout the Commonwealth. Based on the written survey results, 58% of communities use a flat rate structure; 30% use an ascending rate structure and 12% use a flat fee. To allow for a comparative analysis, we have calculated the "typical" yearly homeowner's cost assuming consumption of 120 hundred cubic feet (90,000 gallons) of water per year. Based on the information included in this survey, *typical annual sewer costs in Massachusetts range from a low of \$168 per household to a high of \$1,632!* The 2009 average is \$584 per household, representing a 19.4% increase over the average in our 2006 rate survey.

The majority of respondents to the written survey use either a quarterly billing cycle (53%) or a biannual billing cycle (34%). Five percent bill annually, 5% bill monthly and the remainder use either a bimonthly or tri-annual billing cycle. Of those communities responding to the written survey, 23% reported that they have a separate rate structure for businesses and 16% provide elderly discounts. Four percent of communities report that they offer an early payment discount. A mere 2% provide separate seasonal rates and 8% provide low-income discounts.



Tighe & Bond would like to thank all communities for their participation in this survey. Comparisons of sewer rate structures and resulting typical homeowner's costs can be difficult given the wide variety of user charge methods in use. If we have incorrectly interpreted information for any community please let us know and we will make appropriate corrections. Questions, comments or suggestions are certainly welcome. Please contact Mary Beth Morris, P.E. at (413) 572-3247 for further information and or additional copies.

Tighe & Bond has been providing consulting engineering services to government entities for decades. Ever since the federal Clean Water Act of 1972, municipalities have been faced with the challenge of keeping up with changing regulations governing the discharge of wastewater to rivers and streams. With engineering expertise and current regulatory knowledge, Tighe & Bond has helped many communities meet the challenge of wastewater management. Tighe & Bond also provides expertise in residuals management, water resources management, civil engineering, solid and hazardous waste management and geographic information services.