



Water and Wastewater Financial Planning
and Rate Study Report
May 2007



WOODCOCK & ASSOCIATES, INC.

Utility Rates & Finance



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May 15, 2007

Mr. David Hickey
Director of Public Works
Town of Winthrop
100 Kennedy Road
Winthrop, Massachusetts 02152

Dear Mr. Hickey:

Raftelis Financial Consultants, Inc. (“RFC”) and Woodcock and Associates (“WA”), herein referred to as RFC-WA, has completed its assignment to perform a water and wastewater utility rate study (“Rate Study”) for the Town of Winthrop (“Town”). This letter report provides a summary of the results of the study and includes a copy of the schedules from the utility rate and financial planning model developed for the Town as part of the project.

The Town of Winthrop, through its Department of Public Works, operates and maintains the water distribution and wastewater collection systems that serve approximately 1.6 square miles and roughly 4,500 water and wastewater accounts, of which 99% are residential customers. Treated water is purchased from the Massachusetts Water Resources Authority (“MWRA”) and wastewater is discharged to the MWRA system for treatment. The Town currently bills its water and wastewater customers on a quarterly basis with water and wastewater bills both being based on metered water consumption.

The Town develops a capital improvement plan (“CIP”) that identifies the capital improvements necessary to provide water and wastewater services to their customers. As part of the Rate Study requirements, the Town recently completed its updated five-year CIP for fiscal years (“FY”) 2008 to 2012 which identified \$4.565 million of project costs for both water and wastewater, \$3.5 million and \$1.065 respectively. To incorporate these capital costs, as well as to examine the sufficiency of the existing rates and rate structures, the Town engaged RFC-WA to conduct a Rate Study and to develop a rate and financial planning model that would accomplish the following:

- a. Provide a five-year forecast of the revenue requirements (including both operating and capital costs) for the water and wastewater utilities;

- b. Determine the revenue sufficiency of each utility under existing rates;
- c. Establish reserve funds for both water and wastewater equivalent to 10% of revenues; and
- d. Provide recommended rate adjustments for each utility for FY 2008 through FY 2012 that provide the revenues necessary to cover increasing operating and capital costs.

EXISTING RATE STRUCTURES

The Town's current water rate structure is comprised of a uniform volumetric rate of \$3.69 per 100 cubic feet of water. This volumetric rate is charged for all usage, regardless of customer class or quantity of usage. Similarly, the wastewater rate structure is also comprised of only a volumetric rate of \$6.12 per 100 cubic feet. It too, is charged for all usage, regardless of customer class or quantity. The Town bills all water and wastewater customers quarterly, and wastewater usage is based on 100% of metered water use.

Beginning in FY 2007, the Town implemented a \$75 minimum bill that must be paid regardless of whether the customer's usage reaches the level of usage that requires that amount of payment. This minimum bill reflects approximately 7.65 hundred cubic feet of usage or 5,722 gallons for a three month period, which is minimal. It is typical for many utilities to have "average" users that use 7,500 gallons on a monthly basis. As the Town's water and wastewater rates are projected to increase, the impact of this minimum bill will become less.

DEVELOPMENT OF RATE AND FINANCIAL PLANNING MODEL

RFC developed a rate and financial planning model ("Rate Model") using various financial and billing system data provided by the Town. (A complete set of schedules from the Rate Model is provided in the Appendix). The Rate Model serves as a valuable tool in assessing the current financial condition of the water and wastewater utilities, and provides a mechanism for forecasting the future financial condition under various assumptions and rate adjustments. The Rate Model is designed for ease of use by Town staff and is a formal deliverable of the engagement. RFC-WA can hold a training session with Town staff, if desired, to ensure the model is effectively maintained to maximize the utility of the Rate Model in future years.

Revenue Requirements

In order to forecast the level of rate adjustments, revenue requirements must be identified and projected into the future. Revenue requirements include all costs incurred by the Town to operate the water and wastewater utilities. Revenue requirements not only represent the cash-needs of each utility but must also address liquidity and debt coverage requirements.

Operations and Maintenance Costs

The identification and projection of revenue requirements begins with the Town’s budget, which identifies the operations and maintenance costs of the water and wastewater utilities. The Town’s total approved budget for FY 2007 and the Town’s planned budget for FY 2008 were entered into the rate model. The FY 2008 planned budget was used as the base year, meaning that each line item in the budget was then escalated by the appropriate escalation factor shown below, in order to project operating expenses into the future.

Exhibit 1: Expense Escalation Factors

Budget Line Item	Escalation Factor
Group Insurance	12.0%
Retirement	2.5%
Utilities	7.0%
General Insurance	9.0%
All Others	3.0%
MWRA	Detailed Below

As part of the budgeting process for FY 2008, the Transfer to the General Fund was not included, but is anticipated to be an expense for FY 2008. For the estimate of this transfer, RFC-WA used the FY 2007 Transfer to the General Fund (\$110,000) and escalated the cost by 3%. From FY 2008 forward, 3% is used as the escalation factor.

A large part of the budget for both water and wastewater is their respective agreements with the MWRA. For both water and wastewater, projected annual increases for the water purchase and the wastewater treatment was provided by MWRA.¹ The annual increases are shown below:

Exhibit 2: MWRA Projected Increases

	FY 2009	FY 2010	FY 2011	FY 2012
Water	10.4%	2.4%	17.0%	-1.2%
Wastewater	8.2%	11.8%	3.1%	6.9%

Total water and wastewater operating costs are shown in Exhibit 4 for water and Exhibit 5 for wastewater.

¹ MWRA rate increase projections provided by Leo Norton of the Finance Division of MWRA on 12/7/06, and are subject to change.

Capital Costs

The next step in the projection of revenue requirements involves the Town’s CIP. The CIP for FY 2008 to 2012 was entered into the Rate Model. The funding sources identified by the Town were also incorporated into the Rate Model.

From FY 2008 to FY 2012, the Town anticipates spending approximately \$3.5 million for water capital projects. FY 2008 comprises the majority of these capital costs as it is anticipated that \$1.9 million will be spent in FY 2008. Of this amount, approximately \$1.5 million is needed to fund the water replacement and radio read conversion. For this project, the Town will obtain a 15-year loan. The remaining \$400k (FY 2008) will be used for water main refinement and replacement. It is anticipated that the Town will spend approximately \$400k annually for water main replacement, and as such, the Town anticipates using the Local Pipeline Assistance Program (“LPAP”) to fund these annual needs.

For wastewater, the Town’s five year capital plan (FY 2008 to FY 2012) includes approximately \$1.065 million for capital projects. The Town anticipates that all of the projects listed in the wastewater CIP will qualify for the MWRA Inflow and Infiltration Community Assistance Program (“MWRA I/I CAP”). Using the MWRA I/I CAP, the Town will be responsible for 55% of the project costs, as the remaining 45% will be grant funded, which will provide a significant cost savings to the Town.

Exhibit 3 details both the Town’s water and wastewater capital improvement plan.

Exhibit 3: Projected Capital Improvement Plan

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
<u>Water Capital Projects</u>					
Water Replacement and Radio Read Conversion					
Meters	\$ 975,000				
Hardware / Software & Training	100,000				
Installation	425,000				
Refine and Replacement of Water Mains					
Engineering Study	100,000				
Infrastructure	300,000	400,000	400,000	400,000	400,000
Total Water Capital Projects	\$ 1,900,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
<u>Sewer Capital Projects</u>					
Lincoln, Walden, Read and Beal Streets	\$ 400,000				
Putnam Street		160,000			
Bowdion, Main Street & McGee's		140,000			
Palmyra		140,000			
Somerset, Johnson & Sargent Streets					225,000
Total Sewer Capital Projects	\$ 400,000	\$ 440,000	\$ -	\$ -	\$ 225,000

Debt Service Costs

Revenue requirements also include existing and proposed debt service costs. Currently, the Town has no existing debt service for the Water Fund, and a minimal amount of debt service for the Sewer Fund, approximately \$34,500 annually to pay for a previous Inflow and Infiltration Study. The existing debt service for the Sewer Fund is projected to begin in FY 2008. In addition, to pay for the five-year CIP as previously presented, the Town will incur several outstanding loans, including; the 15-year loan for the radio read conversion, several LPAP loans and several MWRA I/I CAP loans. The debt service for these loans is projected to begin in FY 2009. The existing and proposed debt service has been incorporated in the Rate Model. Annual debt service costs are shown in Exhibits 4 and 5 on the following pages for water and wastewater, respectively.

Contributions to Reserve Funds

Lastly, revenue requirements include contributions to reserve funds. As part of the Rate Study, one of the objectives was to generate enough revenue through rates to establish a reserve fund for any emergency repair and replacement needs or emergency operating needs. As a goal, Town staff set a target of roughly 10% of revenues. In order to mitigate rate increases and achieve this target reserve fund level over time, the revenue requirements were increased to include \$60k annually for water, and \$70k annually for wastewater. Over the five year planning period, it is projected that each fund will meet its respective target reserve fund level. Annual reserve fund contributions are shown in Exhibit 4 for water and Exhibit 5 for wastewater.

Determination of Net Revenue Requirements

As an enterprise fund, water and wastewater operations are financed and operated as a distinct business enterprise. Appropriate rates and charges should be established to ensure that the water and wastewater operations can operate on a self-sustaining basis. For the water and wastewater utilities, the majority of revenues are normally derived through user charges. User charges are defined as service fees, rates, and billings that are charged to the beneficiaries of the water and wastewater services. The utilities also generate other revenues such as customer service charges and tap fees, and non-operating revenues such as interest earnings. These other revenues are called offsets because they are used to reduce, or offset, the total revenue requirements to determine net revenue requirements, which represent the amount to be recovered from retail user rates and charges from each utility.

In order to determine the net revenue requirements and necessary rate adjustments for each utility, the revenue requirements for each utility have been reduced by the appropriate offsets to determine net revenue requirements which will be recovered through the retail user rates.

REVENUE SUFFICIENCY

In order to determine the Town's projection of revenues, historic billing system data was entered into the Rate Model. Billing data for FY 2004 to FY 2006 was provided by Town staff, which consisted of water consumption by quarter and the projected revenues from the retail user charges based on this consumption. In addition, information was also provided that allowed for a reduction to the billing data, due to the public properties that do not pay for water and sewer, and the abatement program that gives refunds for defective equipment and the repair of leaks, which creates increased usage. This same water consumption data was used for wastewater flow, as wastewater flow is based on 100% of water use.

The customer and usage data was reviewed to verify consistency with actual revenues generated and to evaluate recent trends in water usage. The Town's usage data was also compared to the water purchased from the MWRA. Data provided showed that for FY 2006, the Town billed for 25% less consumption than what it actually purchased from MWRA. For FY 2004 and FY 2005, the differences between what was billed to Town residents versus what was actually purchased from MWRA were 21% and 27%, respectively.

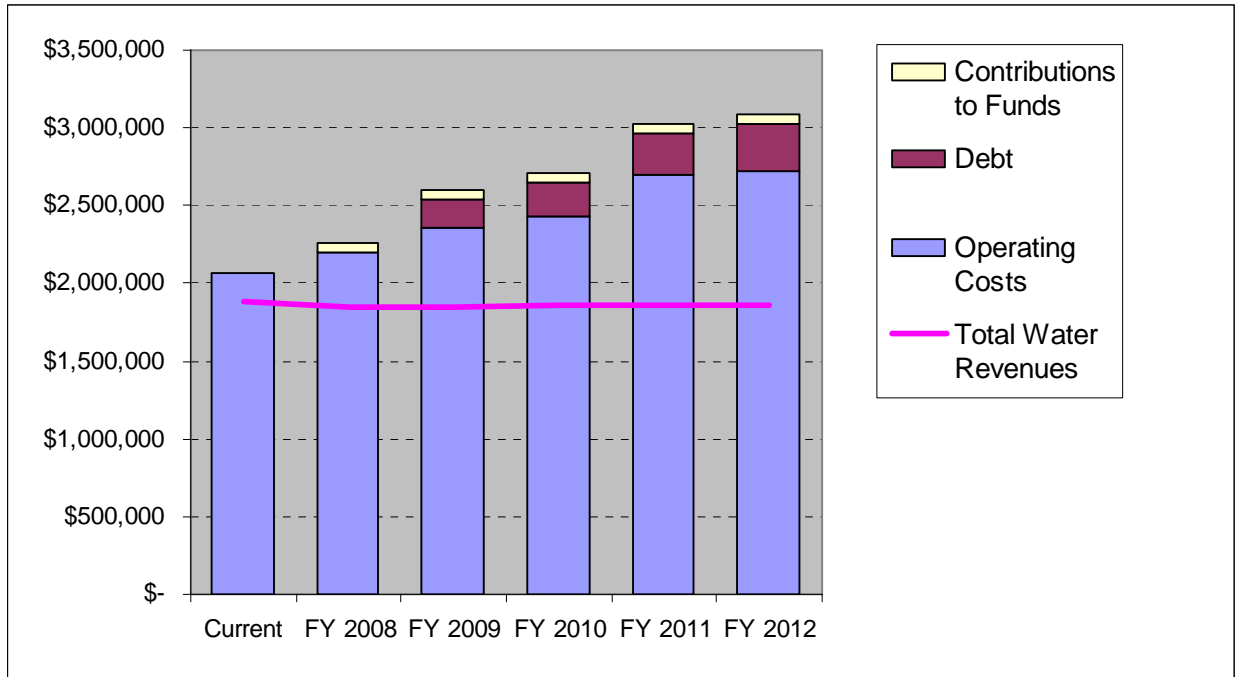
Actual billed water consumption for the Town decreased by roughly 10% from FY 2004 to FY 2005, and increased only slightly for FY 2006. Based on year to date FY 2007 information, the Town anticipates a drop in consumption once again for FY 2007. As such, consumption for FY 2007 is based on FY 2006 consumption with a 5% reduction. For FY 2008, consumption (existing customer base) is projected to decrease by 5% once again, however, "new" consumption is projected for the anticipated 44 condominium units that will be added to the Town and will provide additional usage. The net impact on FY 2008 consumption is a decrease in consumption of approximately 4.0%. For future years, FY 2009 through FY 2012, consumption/usage is projected to remain constant.

The FY 2007 flow estimates were multiplied by the approved FY 2007 water and wastewater rates in order to project the revenues for FY 2007 for each utility. In addition, estimated offsets, which include other non-user revenues such as interest income, tap fees, customer billing fees, etc. were included to determine the total revenues to be generated by the water and wastewater utilities. The revenues projected to be generated under existing rates by each utility were then compared to the annualized actual year to date expenses to determine the surplus or deficit expected from each utility.

As summarized below, and shown in more detail in Schedule 8, the water utility is expected to generate a deficit of approximately \$181,272 in FY 2007. In future years, as the proposed debt

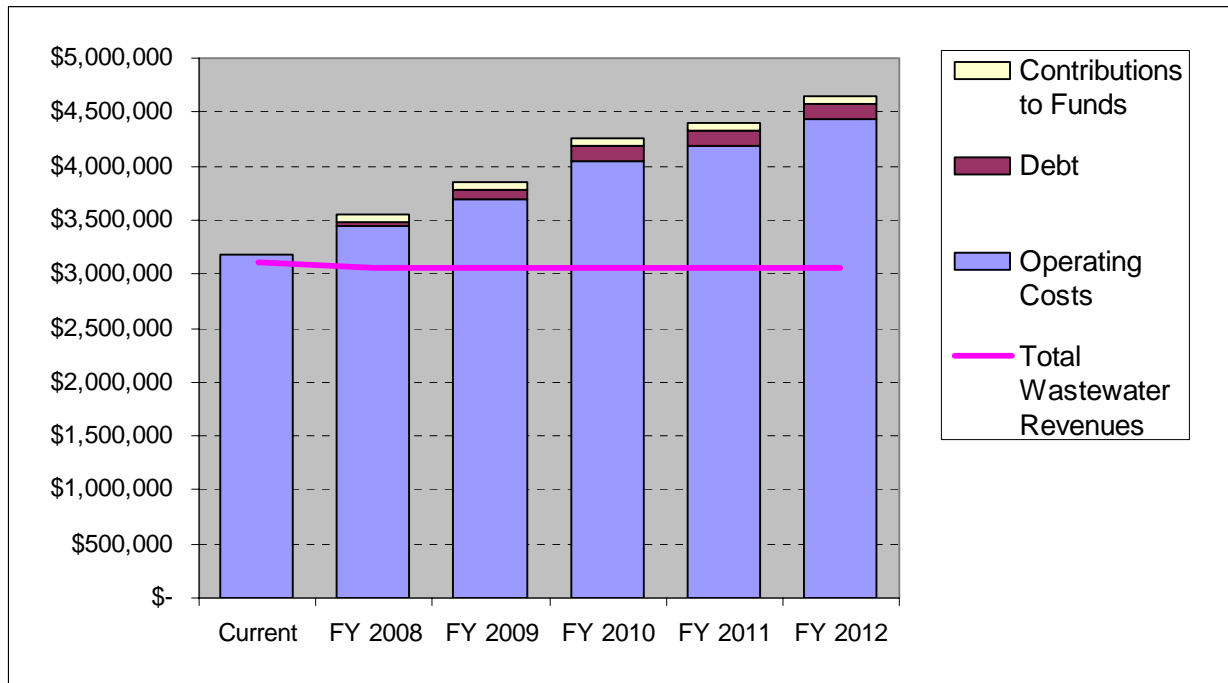
service begins, and the projected revenue requirements increase, the inadequacy of revenues will continue to increase as shown in Exhibit 4 below.

Exhibit 4: Water Revenue Requirements and Revenues Under Existing Rates



Similar to the water utility, the wastewater utility is expected to generate a deficit as well. For FY 2007, the wastewater utility deficit is projected to be approximately \$73,202. In future years, as the existing and proposed debt service begins, and the projected revenue requirements increase, the inadequacy of revenues will continue to increase as shown in Exhibit 5 below.

Exhibit 5: Wastewater Revenue Requirements and Revenues Under Existing Rates



It is important to note that the deficit that is estimated in FY 2007 is not projected to be recovered in future fiscal years. For FY 2008, the focus has been to generate revenues sufficient to recover the requirements for FY 2008.

PROPOSED RATE ADJUSTMENTS AND CUSTOMER IMPACTS

In order to determine the level of rate adjustments necessary to meet the cash needs of the utilities, the net revenue requirements are divided by customer billing data which has been converted to the appropriate units, and has been adjusted for decreased consumption. Given the fact that the Town has chosen to maintain a more simplistic rate structure, this is a relatively straight forward task.

Since both the water and wastewater utilities are generating deficits, the Rate Model is projecting rate adjustments for both water and wastewater beginning FY 2008. A 22.8% water rate adjustment is recommended, and a 16.7% wastewater rate adjustment is recommended, both for implementation beginning FY 2008.

In addition, in order to meet rising operating costs, specifically those costs related to insurance and the purchase of water from MWRA and for wastewater, the treatment of flows, as well as rising debt service costs, future rate increases are projected for both water and wastewater.

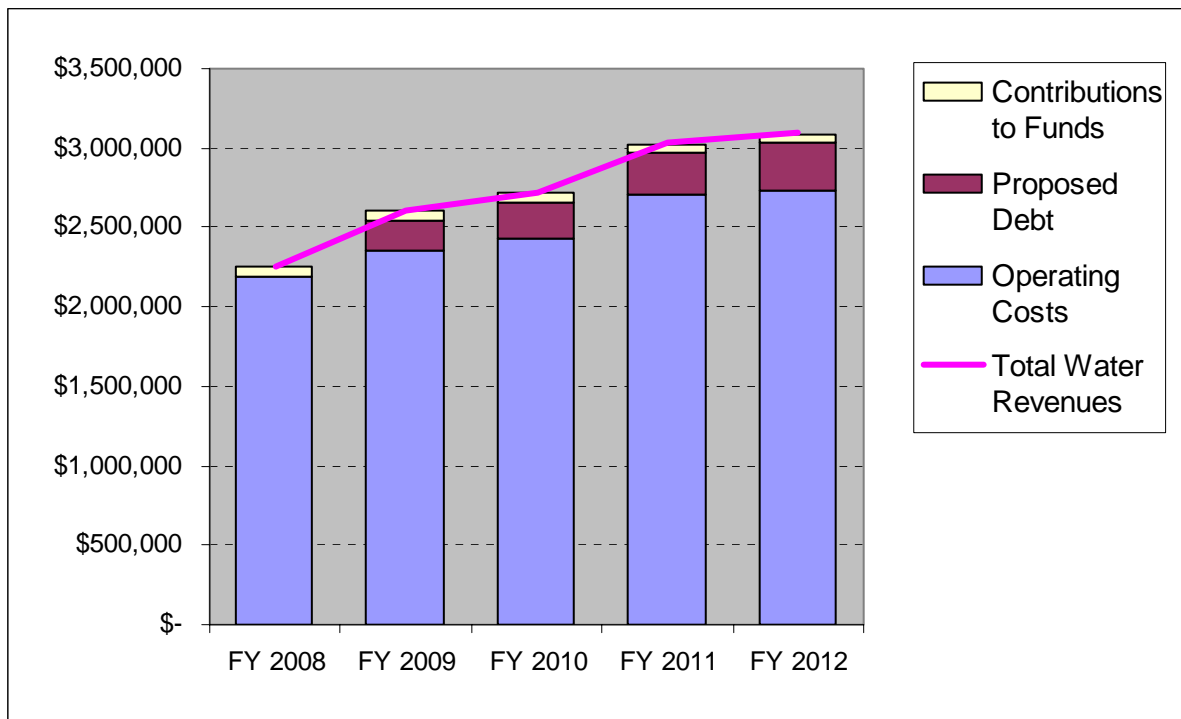
Exhibit 6 details the projected water and wastewater rate increases as shown below.

Exhibit 6: Projected Water and Wastewater Rate Increases

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Water	22.8%	15.7%	4.4%	11.9%	2.1%
Wastewater	16.7%	8.4%	11.1%	3.1%	6.0%

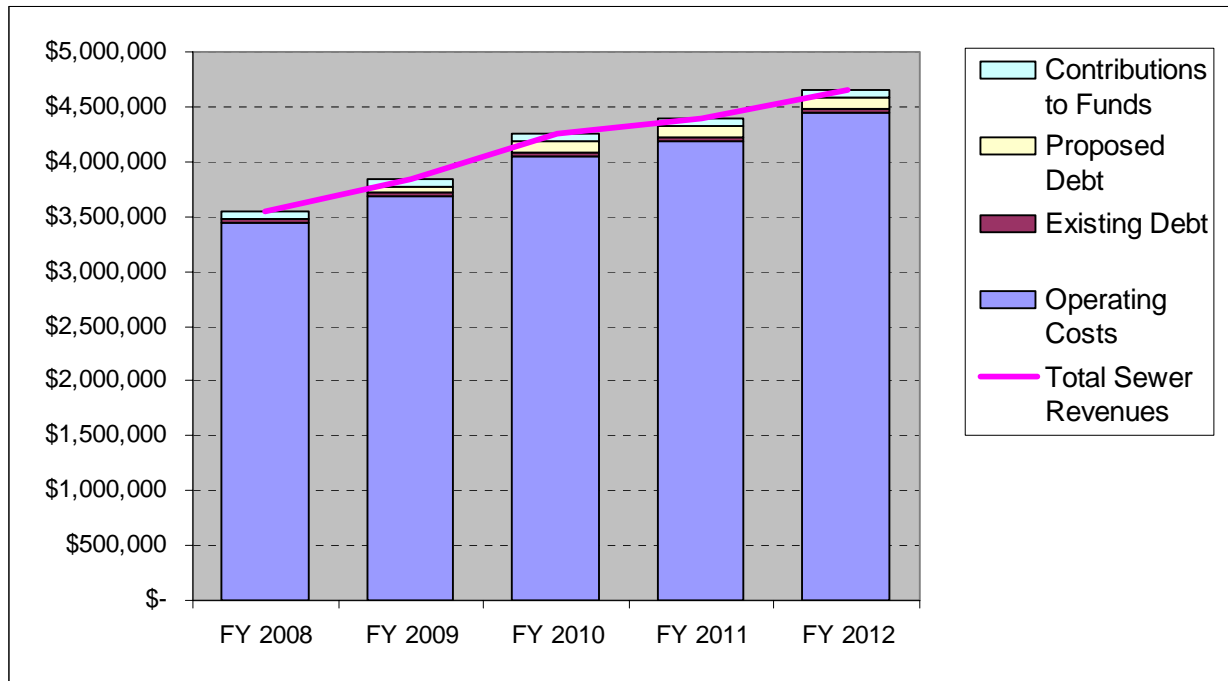
The proposed water rate increases provide sufficient revenues to cover the operating expenses, the debt service associated with the funding of capital projects, plus the build-up of reserves to cover the need of emergency repair or operating crisis. The resulting revenues from the proposed water rate increases are shown below in Exhibit 7.

Exhibit 7: Water Revenues under Proposed Rates



Similar to water, the wastewater rate increases provide sufficient revenues to create a financially sound utility. The resulting revenues from the proposed wastewater rate increases are shown below in Exhibit 8.

Exhibit 8: Wastewater Revenues under Proposed Rates



As previously discussed, in FY 2007, the Town implemented a \$75 minimum bill that must be paid regardless of whether the customer’s usage reaches the level of usage that requires that amount of payment. As part of the updated rate structure, Town staff has elected to reduce that minimum bill to \$50 per quarter.

Customer Impacts

One of the most important components of a rate study is an analysis of how the proposed rate adjustments would impact the monthly bills, or quarterly bills in Winthrop’s case, of water and wastewater customers. Given the water and wastewater rate increases shown above in Exhibit 6, the combined rate increases for water and wastewater over the five year projected period are shown below in Exhibit 9.

Exhibit 9: Projected Combined Rate Increases / Customer Impacts

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
% Rate Increase	19.0%	11.2%	8.4%	6.5%	4.4%

These rate increases represent the combined impact that the rate increases will have on the Town of Winthrop customer's total bill.

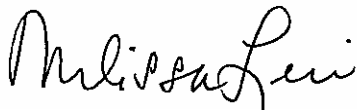
OPPORTUNITIES FOR ENHANCING FINANCIAL PLANNING AND RATES/RATE STRUCTURES

As previously discussed, a portion of the water and wastewater utilities expenses or revenue requirements are attributable to a Transfer to the General Fund ("Transfer"). This Transfer is comprised of indirect costs associated with the Town providing services to both the water and wastewater utilities. As part of the rate study, RFC-WA has reviewed the determination of the indirect charges assessed to the water and wastewater utilities at a summary level. The calculations by the Town Accountant appear to be reasonable. While some allocations may be somewhat high, other costs may not be reflected – in effect these revisions likely offset each other. While the general calculations are reasonable, RFC-WA suggests a more in depth look in the future.

RFC-WA also suggests that the Town consider a payment in lieu of taxes ("PILOT") from the water and sewer funds to the Town's General Fund. A PILOT is rather common in other parts of the country and provides a better reflection of the true costs of water and sewer service.

RFC-WA appreciates the opportunity to work with the Town of Winthrop on this very important study. If you have any questions about the information presented above or the attached schedules, please contact us at (704) 373-1199 (RFC) or (508) 735-5237 (WA).

Sincerely,



Melissa Levin
Raftelis Financial Consultants, Inc.



Chris Woodcock
Woodcock & Associates

Appendix

Schedules from the Rate Model

**Town of Winthrop
Rate and Financial Planning Study
Capital Improvement Plan**

Schedule 1

Water Capital Projects

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Water Replacement and Radio Read Conversion					
Meters	\$ 975,000				
Hardware / Software & Training	100,000				
Installation	425,000				
Refine and Replacement of Water Mains					
Engineering Study	100,000				
Infrastructure	300,000	400,000	400,000	400,000	400,000
Total Water Capital Projects	\$ 1,900,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000

Funding Sources for Water Capital Projects

Rate Funded Capital					
15 yr. Loan Funded	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -
Pipeline Assistance Program (LPAP) for Main Replacement	400,000	400,000	400,000	400,000	400,000
Total Funding Sources - Water	\$ 1,900,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000

Water Projects Not Funded \$ - \$ - \$ - \$ - \$ -

Sewer Capital Projects

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Lincoln, Walden, Read and Beal Streets	\$ 400,000				
Putnam Street		160,000			
Bowdion, Main Street & McGee's		140,000			
Palmyra		140,000			
Somerset, Johnson & Sargent Streets					225,000
Total Sewer Capital Projects	\$ 400,000	\$ 440,000	\$ -	\$ -	\$ 225,000

Funding Sources for Sewer Capital Projects

Rate Funded Capital					
15 yr. Loan Funded					
MWRA's I/I Community Assistance Program	\$ 400,000	\$ 440,000	\$ -	\$ -	\$ 225,000
Total Funding Sources - Sewer	\$ 400,000	\$ 440,000	\$ -	\$ -	\$ 225,000

Sewer Projects Not Funded \$ - \$ - \$ - \$ - \$ -

Town of Winthrop
 Rate and Financial Planning Study
 Debt Service

Schedule 2

Existing Debt Service

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Sewer					
Repayment - I/I Study	\$ 34,500	\$ 34,500	\$ 34,500	\$ 34,500	\$ 34,500
Total Existing Debt - Sewer	\$ 34,500	\$ 34,500	\$ 34,500	\$ 34,500	\$ 34,500

Proposed Debt Service

	Loan Amount	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Water						
2008 15-yr. loan	\$ 1,500,000		\$ 144,513	\$ 144,513	\$ 144,513	\$ 144,513
2009 15-yr. loan	-			-	-	-
2010 15-yr. loan	-				-	-
2011 15-yr. loan	-					-
2012 15-yr. loan	-					
<i>Subtotal</i>		\$ -	\$ 144,513	\$ 144,513	\$ 144,513	\$ 144,513
2008 LPAP ⁽¹⁾	\$ 400,000		\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000
2009 LPAP	400,000			40,000	40,000	40,000
2010 LPAP	400,000				40,000	40,000
2011 LPAP	400,000					40,000
2012 LPAP	400,000					
<i>Subtotal</i>		\$ -	\$ 40,000	\$ 80,000	\$ 120,000	\$ 160,000
Total Proposed Debt - Water		\$ -	\$ 184,513	\$ 224,513	\$ 264,513	\$ 304,513

	Loan Amount (3)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Sewer						
2008 15-yr. loan	\$ -		\$ -	\$ -	\$ -	\$ -
2009 15-yr. loan	-			-	-	-
2010 15-yr. loan	-				-	-
2011 15-yr. loan	-					-
2012 15-yr. loan	-					
<i>Subtotal</i>		\$ -	\$ -	\$ -	\$ -	\$ -
2008 I/I CA ⁽²⁾	\$ 220,000		\$ 50,814	\$ 50,814	\$ 50,814	\$ 50,814
2009 I/I CA	242,000			55,896	55,896	55,896
2010 I/I CA	-				-	-
2011 I/I CA	-					-
2012 I/I CA	123,750					
<i>Subtotal</i>		\$ -	\$ 50,814	\$ 106,710	\$ 106,710	\$ 106,710
Total Proposed Debt - Sewer		\$ -	\$ 50,814	\$ 106,710	\$ 106,710	\$ 106,710

Financing Assumptions for 15 yr	
Interest Rate	5.0%
Issuance Costs	
Term	15

Financing Assumptions for LPAP	
Interest Rate	0.0%
Issuance Costs	
Term	10

Financing Assumptions for I/I CA	
Interest Rate	5.0%
Issuance Costs	
Term	5
Percentage I/I CA projects financed:	55%

- (1) LPAP = Local Pipeline Assistance Program
- (2) I/I CA = Inflow/Infiltration Community Assistance Program
- (3) Loan amounts shown for I/I CA are 55% of project costs. 45% is grant funded.

Town of Winthrop
Rate and Financial Planning Study
Water Revenue Requirements

Schedule 3

	Actuals Ann.	Budget	Budget	Projected			Growth FY08	Growth FY09-12	
	FY 2007	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011			FY 2012
Operating Costs									
<u>Personnel</u>									
90251 511000	Personnel	372,253	372,478	447,173	460,588	474,406	488,638	503,297	3.0%
90251 513000	Overtime	29,520	26,750	29,500	30,385	31,297	32,235	33,203	3.0%
90251 517100	Worker's Compensation	13,496	16,898	23,540	24,246	24,974	25,723	26,494	3.0%
90251 517300	D.E.P.	0	8,500	9,000	9,270	9,548	9,835	10,130	3.0%
90251 517500	Group Insurance	36,772	59,482	50,290	56,325	63,084	70,654	79,132	12.0%
90251 517700	Retirement	87,562	87,562	69,228	70,959	72,733	74,551	76,415	2.5%
	Subtotal	\$ 539,603	\$ 571,670	\$ 628,731	\$ 651,773	\$ 676,041	\$ 701,636	\$ 728,671	
<u>Expenses</u>									
90252 521600	Utilities	24,353	25,700	27,500	29,425	31,485	33,689	36,047	7.0%
90252 576100	Reserve	0	25,000	25,000	25,750	26,523	27,318	28,138	3.0%
90252 520000	Purchased Services	550	55,000	60,000	61,800	63,654	65,564	67,531	3.0%
90252 530705	Education / Training / Licenses	1,855	2,000	2,200	2,266	2,334	2,404	2,476	3.0%
90252 540000	Supplies	372	73,500	80,000	82,400	84,872	87,418	90,041	3.0%
90252 542005	Supplies & Equipment	106,336							
90252 558401	Clothing		2,450	2,450	2,524	2,599	2,677	2,757	3.0%
90252 584017	Water Works			12,000	12,360	12,731	13,113	13,506	3.0%
90252 563500	MWRA Assessment	1,249,284	1,249,283	1,205,915	1,331,330	1,363,282	1,595,040	1,575,900	
90252 544350	Contract Services	37,120							
90252 574022	General Insurance		37,750	38,000	41,420	45,148	49,211	53,640	9.0%
90252 591000	Maturing Debt-Principal								
90252 591500	General Fund Transfer	110,000	110,000	113,300	116,699	120,200	123,806	127,520	3.0%
	Subtotal	\$ 1,529,870	\$ 1,580,683	\$ 1,566,365	\$ 1,705,974	\$ 1,752,827	\$ 2,000,240	\$ 1,997,555	3.0%
Total Operating Costs		\$ 2,069,473	\$ 2,152,353	\$ 2,195,096	\$ 2,357,747	\$ 2,428,868	\$ 2,701,875	\$ 2,726,226	
	<i>% Change</i>			6.1%	9.5%	10.6%	14.6%	12.2%	
Projected MWRA Water Rate Increases (1)					10.4%	2.4%	17.0%	-1.2%	
Non-Operating Costs									
Rate Funded Capital		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Debt Service									
Existing Debt		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Proposed Debt		-	-	184,513	224,513	264,513	304,513	304,513	
Total Debt Service		\$ -	\$ -	\$ 184,513	\$ 224,513	\$ 264,513	\$ 304,513	\$ 304,513	
					21.7%	17.8%	15.1%		
Contributions to Designated Funds									
To Water Reserve Fund (2)			\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	
		\$ -	\$ -	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	
Total Non-Operating Costs		\$ -	\$ -	\$ 60,000	\$ 244,513	\$ 284,513	\$ 324,513	\$ 364,513	
Total Revenue Requirements		\$ 2,069,473	\$ 2,152,353	\$ 2,255,096	\$ 2,602,260	\$ 2,713,381	\$ 3,026,389	\$ 3,090,740	
				9.0%	20.9%	20.3%	16.3%	13.9%	

- (1) Projections based on MWRA rate increase projections provided by Leo Norton on 12/7/06, and are subject to change.
(2) Approximately 10% of revenues need to be reserved per Mike Bertino. Projection reaches target over 5-yr. period.

To Reserve Fund to Generate 10% of Revenues					
\$ 2,152,353	\$ 2,195,096	\$ 2,542,260	\$ 2,653,381	\$ 2,966,389	\$ 3,030,740
215,235	219,510	254,226	265,338	296,639	303,074
	4,274	34,716	11,112	31,301	6,435

Town of Winthrop
Rate and Financial Planning Study
Sewer Revenue Requirements

Schedule 4

	Actuals Ann. FY 2007	Budget FY 2007	Budget FY 2008	Projected			Growth FY08	Growth FY09-12	
				FY 2009	FY 2010	FY 2011			FY 2012
Operating Costs									
<u>Personnel</u>									
90151 511000	Personnel	367,425	330,312	399,799	411,793	424,147	436,871	449,977	3.0%
90151 513000	Overtime	40,660	40,660	47,500	48,925	50,393	51,905	53,462	3.0%
90151 517100	Worker's Compensation	13,268	16,051	17,175	17,690	18,221	18,768	19,331	3.0%
90151 517500	Group Insurance	39,255	59,482	63,646	71,284	79,838	89,418	100,148	12.0%
90151 517700	Retirement	84,972	84,972	68,497	70,209	71,965	73,764	75,608	2.5%
		\$ 545,580	\$ 531,477	\$ 596,617	\$ 619,901	\$ 644,563	\$ 670,725	\$ 698,526	
<u>Expenses</u>									
90152 576100	Reserve	7,552	25,000	25,000	25,750	26,523	27,318	28,138	3.0%
90152 521600	Utilities	39,111	43,000	46,000	49,220	52,665	56,352	60,297	7.0%
90152 524000	Maintenance Contracts		10,000	11,000	11,330	11,670	12,020	12,381	3.0%
90152 527000	Special Waste Testing		2,000	2,500	2,575	2,652	2,732	2,814	3.0%
90152 527100	Special Waste Disposal		19,000	25,000	25,750	26,523	27,318	28,138	3.0%
90152 529100	Cleaning Contracts		5,000	5,000	5,150	5,305	5,464	5,628	3.0%
90152 530705	Education / Training / Licensures	1,391	1,400	1,500	1,545	1,591	1,639	1,688	3.0%
90152 542000	Administrative		7,500	8,000	8,240	8,487	8,742	9,004	3.0%
90152 542005	Supplies & Equipment	84,282							
90152 544300	Motor Vehicle Maintenance		11,000	11,000	11,330	11,670	12,020	12,381	3.0%
90152 544350	Contract Services	52,907							
90152 544800	Tools & Equipment		3,000	3,500	3,605	3,713	3,825	3,939	3.0%
90152 546000	Landscape Materials	0	1,000	2,500	2,575	2,652	2,732	2,814	3.0%
90152 548105	Gas & Motor Oil		6,600	6,800	7,004	7,214	7,431	7,653	3.0%
90152 558401	Clothing		2,800	2,800	2,884	2,971	3,060	3,151	3.0%
90152 563500	MWRA Assessment	2,261,782	2,261,781	2,517,192	2,723,602	3,044,987	3,139,381	3,355,999	
90152 574022	General Insurance		8,311	8,400	9,156	9,980	10,878	11,857	9.0%
90152 576600	Police Details		4,000	5,000	5,150	5,305	5,464	5,628	3.0%
90152 580222	Pump Station Improvements	69,098							
90152 580333	MWRA Grant 2006	11,763							
90152 587000	Equipment Replacement		6,220	7,000	7,210	7,426	7,649	7,879	3.0%
90152 591000	Principal on Bond								
90152 591500	General Fund Transfer	110,000	110,000	113,300	116,699	120,200	123,806	127,520	3.0%
90152 584016	Sewers & Drains		45,000	48,000	49,440	50,923	52,451	54,024	3.0%
		\$ 2,637,886	\$ 2,572,612	\$ 2,849,492	\$ 3,068,215	\$ 3,402,456	\$ 3,510,280	\$ 3,740,931	
Total Operating Costs		\$ 3,183,466	\$ 3,104,089	\$ 3,446,109	\$ 3,688,116	\$ 4,047,019	\$ 4,181,005	\$ 4,439,457	
	<i>% Change</i>			8.3%	18.8%	17.4%	13.4%	9.7%	
Projected MWRA Sewer Rate Increases (1)					8.2%	11.8%	3.1%	6.9%	
Non-Operating Costs									
Rate Funded Capital		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Debt Service									
Existing Debt		\$ -	\$ 34,500	\$ 34,500	\$ 34,500	\$ 34,500	\$ 34,500	\$ 34,500	
Proposed Debt					50,814	106,710	106,710	106,710	
Total Debt		\$ -	\$ 34,500	\$ 85,314	\$ 141,210	\$ 141,210	\$ 141,210	\$ 141,210	
Contributions to Designated Funds									
To Sewer Reserve Fund (2)			\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	
		\$ -	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	
Total Non-Operating Costs		\$ -	\$ 104,500	\$ 155,314	\$ 211,210	\$ 211,210	\$ 211,210	\$ 211,210	
Total Revenue Requirements		\$ 3,183,466	\$ 3,104,089	\$ 3,550,609	\$ 3,843,430	\$ 4,258,229	\$ 4,392,216	\$ 4,650,667	

(1) Projections based on MWRA rate increase projections provided by Leo Norton on 12/7/06, and are subject to change.

(2) Approximately 10% of revenues need to be reserved per Mike Bertino. Projection reaches target over 5-yr. period.

To Reserve Fund to Generate 10% of Revenues					
\$ 3,104,089	\$ 3,480,609	\$ 3,773,430	\$ 4,188,229	\$ 4,322,216	\$ 4,580,667
310,409	348,061	377,343	418,823	432,222	458,067
	37,652	29,282	41,480	13,399	25,845

Town of Winthrop
Rate and Financial Planning Study
Revenue Offsets / Miscellaneous Revenues

Schedule 5

<u>Water</u>	Actual	Projected						Growth
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	
Tax Lien Revenue	\$ 30,000	30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	0.00%
Tax Lien Interest	1,500	1,500	1,500	1,500	1,500	1,500	1,500	0.00%
Interest / Penalties	18,420	18,973	19,542	20,128	20,732	21,354	21,994	3.00%
Lien Reading Fee	3,100	3,193	3,289	3,387	3,489	3,594	3,702	3.00%
Back Flow Charge	1,750	1,803	1,857	1,912	1,970	2,029	2,090	3.00%
Misc Fees	8,260	8,508	8,763	9,026	9,297	9,576	9,863	3.00%
Total Water Revenues	\$ 63,030	\$ 63,976	\$ 64,950	\$ 65,954	\$ 66,987	\$ 68,052	\$ 69,148	

<u>Sewer</u>	Actual	Projected						Growth
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	
Tax Lien Revenue	\$ 60,000	60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	0.00%
Tax Lien Interest	2,200	2,200	2,200	2,200	2,200	2,200	2,200	0.00%
Interest / Penalties	32,000	32,960	33,949	34,967	36,016	37,097	38,210	3.00%
Misc Revenue	285	294	302	311	321	330	340	3.00%
Total Sewer Revenues	\$ 94,485	\$ 95,454	\$ 96,451	\$ 97,479	\$ 98,537	\$ 99,627	\$ 100,750	

**Town of Winthrop
Rate and Financial Planning Study
Volume Charge**

Schedule 6

Water	Current	Budget	Budget	Projected			
		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Total Volume Revenue Requirements		\$ 2,152,353	\$ 2,255,096	\$ 2,602,260	\$ 2,713,381	\$ 3,026,389	\$ 3,090,740
Less Revenue Offsets:							
Tax Lien Revenue		\$ (30,000)	\$ (30,000)	\$ (30,000)	\$ (30,000)	\$ (30,000)	\$ (30,000)
Tax Lien Interest		(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
Interest / Penalties		(18,973)	(19,542)	(20,128)	(20,732)	(21,354)	(21,994)
Lien Reading Fee		(3,193)	(3,289)	(3,387)	(3,489)	(3,594)	(3,702)
Back Flow Charge		(1,803)	(1,857)	(1,912)	(1,970)	(2,029)	(2,090)
Misc Fees		(8,508)	(8,763)	(9,026)	(9,297)	(9,576)	(9,863)
Net Water Revenue Requirements		\$ 2,088,377	\$ 2,190,146	\$ 2,536,306	\$ 2,646,394	\$ 2,958,337	\$ 3,021,591
Annual Consumption		504,308	484,102	484,102	484,102	484,102	484,102
Unit Rate for Water	\$ 3.69	\$ 4.15	\$ 4.53	\$ 5.24	\$ 5.47	\$ 6.12	\$ 6.25
			22.8%	15.7%	4.4%	11.9%	2.1%

Sewer	Current	Budget	Budget	Projected			
		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Total Volume Revenue Requirements		\$ 3,104,089	\$ 3,550,609	\$ 3,843,430	\$ 4,258,229	\$ 4,392,216	\$ 4,650,667
Less Revenue Offsets:							
Tax Lien Revenue		\$ (60,000)	\$ (60,000)	\$ (60,000)	\$ (60,000)	\$ (60,000)	\$ (60,000)
Tax Lien Interest		(2,200)	(2,200)	(2,200)	(2,200)	(2,200)	(2,200)
Interest / Penalties		(32,960)	(33,949)	(34,967)	(36,016)	(37,097)	(38,210)
Misc Revenue		(294)	(302)	(311)	(321)	(330)	(340)
Net Sewer Revenue Requirements		\$ 3,008,635	\$ 3,454,158	\$ 3,745,952	\$ 4,159,692	\$ 4,292,589	\$ 4,549,917
Annual Flows (same as for water)		504,308	484,102	484,102	484,102	484,102	484,102
Unit Rate for Sewer	\$ 6.12	\$ 5.97	\$ 7.14	\$ 7.74	\$ 8.60	\$ 8.87	\$ 9.40
			16.7%	8.4%	11.1%	3.1%	6.0%

**Town of Winthrop
Rate and Financial Planning Study
Fund Balances**

Schedule 7

Water Reserve Fund	Projected					
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Beginning Balance (6/30/06)	\$ (21,000)	\$ -	\$ 60,000	\$ 123,586	\$ 186,268	\$ 251,785
Sources:						
Revenue Surplus / (Deficit)			2,836	388	1,643	4,367
To Reserve Fund	-	60,000	60,000	60,000	60,000	60,000
Interest Income			750	2,295	3,873	5,476
Uses:						
Ending Balance	\$ (21,000)	\$ 60,000	\$ 123,586	\$ 186,268	\$ 251,785	\$ 321,627
<i>Target - 10% Revenues</i>	<i>215,235</i>	<i>219,510</i>	<i>254,226</i>	<i>265,338</i>	<i>296,639</i>	<i>303,074</i>
Average Fund Balance	(21,000)	30,000	91,793	154,927	219,026	286,706
Interest Income		750	2,295	3,873	5,476	7,168
						2.5%

Sewer Reserve Fund	Projected					
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Beginning Balance (6/30/06)	\$ 120,000	\$ 120,000	\$ 190,000	\$ 266,205	\$ 342,904	\$ 424,102
Sources:						
Revenue Surplus / (Deficit)			2,330	997	3,584	1,395
To Reserve Fund	-	70,000	70,000	70,000	70,000	70,000
Interest Income			3,875	5,703	7,614	9,588
Uses:						
Ending Balance	\$ 120,000	\$ 190,000	\$ 266,205	\$ 342,904	\$ 424,102	\$ 505,084
<i>Target - 10% Revenues</i>	<i>310,409</i>	<i>348,061</i>	<i>377,343</i>	<i>418,823</i>	<i>432,222</i>	<i>458,067</i>
Average Fund Balance	120,000	155,000	228,102	304,554	383,503	464,593
Interest Income		3,875	5,703	7,614	9,588	11,615
						2.5%

**Town of Winthrop
Rate and Financial Planning Study
Revenue Proof**

Schedule 8

Water	Actuals	Budget	Projected				
	FY 2007	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
User Revenues	\$ 1,860,596	\$ 1,860,898	\$ 2,192,981	\$ 2,536,694	\$ 2,648,037	\$ 2,962,703	\$ 3,025,637
Miscellaneous Revenues							
Tax Lien Revenue	564	30,000	30,000	30,000	30,000	30,000	30,000
Tax Lien Interest	755	1,500	1,500	1,500	1,500	1,500	1,500
Interest / Penalties	13,338	18,973	19,542	20,128	20,732	21,354	21,994
Lien Reading Fee	2,542	3,193	3,289	3,387	3,489	3,594	3,702
Back Flow Charge	-	1,803	1,857	1,912	1,970	2,029	2,090
Misc Fees	10,405	8,508	8,763	9,026	9,297	9,576	9,863
Subtotal	\$ 27,605	\$ 63,976	\$ 64,950	\$ 65,954	\$ 66,987	\$ 68,052	\$ 69,148
Total Water Revenues	\$ 1,888,201	\$ 1,924,874	\$ 2,257,932	\$ 2,602,647	\$ 2,715,025	\$ 3,030,755	\$ 3,094,785
Operating Costs	\$ 2,069,473	\$ 2,152,353	\$ 2,195,096	\$ 2,357,747	\$ 2,428,868	\$ 2,701,875	\$ 2,726,226
Non-Operating Costs							
Rate Funded	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Debt	-	-	-	-	-	-	-
Proposed Debt	-	-	-	184,513	224,513	264,513	304,513
Contributions to Funds	-	-	60,000	60,000	60,000	60,000	60,000
Subtotal	\$ -	\$ -	\$ 60,000	\$ 244,513	\$ 284,513	\$ 324,513	\$ 364,513
Total Water Revenue Requirements	\$ 2,069,473	\$ 2,152,353	\$ 2,255,096	\$ 2,602,260	\$ 2,713,381	\$ 3,026,389	\$ 3,090,740
Surplus/(Deficit)	\$ (181,272)	\$ (227,479)	\$ 2,836	\$ 388	\$ 1,643	\$ 4,367	\$ 4,046
Coverage Ratio - Water Fund							
Total Revenues	\$ 1,888,201	\$ 1,924,874	\$ 2,257,932	\$ 2,602,647	\$ 2,715,025	\$ 3,030,755	\$ 3,094,785
Less:							
Operating Expenses	2,069,473	2,152,353	2,195,096	2,357,747	2,428,868	2,701,875	2,726,226
Revenues Available for Debt Service	\$ (181,272)	\$ (227,479)	\$ 62,836	\$ 244,901	\$ 286,157	\$ 328,880	\$ 368,559
Water Debt Service (all debt)	-	-	-	184,513	224,513	264,513	304,513
Debt Service Coverage (all debt)				1.327	1.275	1.243	1.210

**Town of Winthrop
Rate and Financial Planning Study
Revenue Proof**

Schedule 8

Sewer	Actuals	Budget	Projected				
	FY 2007	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
User Revenues	\$ 3,014,810	\$ 3,086,367	\$ 3,456,487	\$ 3,746,948	\$ 4,163,276	\$ 4,293,984	\$ 4,550,558
Miscellaneous Revenues							
Tax Lien Revenue	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Tax Lien Interest	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Interest / Penalties	32,960	32,960	33,949	34,967	36,016	37,097	38,210
Misc Revenue	294	294	302	311	321	330	340
Subtotal	\$ 95,454	\$ 95,454	\$ 96,451	\$ 97,479	\$ 98,537	\$ 99,627	\$ 100,750
Total Sewer Revenues	\$ 3,110,264	\$ 3,181,821	\$ 3,552,939	\$ 3,844,427	\$ 4,261,813	\$ 4,393,611	\$ 4,651,308
Operating Costs	\$ 3,183,466	\$ 3,104,089	\$ 3,446,109	\$ 3,688,116	\$ 4,047,019	\$ 4,181,005	\$ 4,439,457
Non-Operating Costs							
Rate Funded	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Debt	-	-	34,500	34,500	34,500	34,500	34,500
Proposed Debt	-	-	-	50,814	106,710	106,710	106,710
Contributions to Funds	-	-	70,000	70,000	70,000	70,000	70,000
Subtotal	\$ -	\$ -	\$ 104,500	\$ 155,314	\$ 211,210	\$ 211,210	\$ 211,210
Total Sewer Revenue Requirements	\$ 3,183,466	\$ 3,104,089	\$ 3,550,609	\$ 3,843,430	\$ 4,258,229	\$ 4,392,216	\$ 4,650,667
Surplus/(Deficit)	\$ (73,202)	\$ 77,732	\$ 2,330	\$ 997	\$ 3,584	\$ 1,395	\$ 640
Coverage Ratio - Sewer Fund							
Total Revenues	\$ 3,110,264	\$ 3,181,821	\$ 3,552,939	\$ 3,844,427	\$ 4,261,813	\$ 4,393,611	\$ 4,651,308
Less:							
Operating Expenses	3,183,466	3,104,089	3,446,109	3,688,116	4,047,019	4,181,005	4,439,457
Revenues Available for Debt Service	\$ (73,202)	\$ 77,732	\$ 106,830	\$ 156,311	\$ 214,794	\$ 212,605	\$ 211,850
Sewer Debt Service (all debt)	\$ -	\$ -	\$ 34,500	\$ 85,314	\$ 141,210	\$ 141,210	\$ 141,210
Debt Service Coverage (all debt)			3.097	1.832	1.521	1.506	1.500

Town of Winthrop
Rate and Financial Planning Study
Projection of Winthrop Accounts and Actual Consumption / Flows

Schedule 9

Water Accounts	Actual			Projected						Growth	
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012		
Accounts	4,433	4,433	4,430	4,430	4,430	4,430	4,430	4,430	4,430	4,430	0%

Water Consumption ⁽²⁾	Actual			Projected ⁽¹⁾						Growth	
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012		
Consumption (100 cu. Ft.)	579,072	522,698	530,851	504,308	484,102	484,102	484,102	484,102	484,102	484,102	0%

Usage per Account	Actual			Projected
	FY 2004	FY 2005	FY 2006	FY 2007
Consumption (100 cu. Ft)	130.6275	117.9107	119.8309	113.8394
		x units		<u>44</u>
				5008.932

(1) Consumption for FY 2007 is expected to be reduced by 5% and again by 5% in FY 2008. In FY 2008 44 new condominium units are expected to come on line. Consumption for these units calculated by taking the average projected usage per account for FY 2007 and multiplying it by 44.

(2) Consumption represents Winthrop's actual customer usage, not services purchased through Massachusetts Water Resources Authority.

Town of Winthrop
Rate and Financial Planning Study
Winthrop Water Billings

Schedule 10

Fiscal Year	Qtr	Quarterly Period	Bill Date	# of Connections	Consumption in cubic feet	Water Rater Per H.C.F.	Charges Multiplied By Current Rate	Munis Report Total Net Charges	Percent Of Billings Collected ⁽¹⁾	Consumption (Based On Revenues Collected And Rate Provided)	Average # of Customers for Fiscal Year	Consumption in Gallons
2004	1ST	7/1/03 TO 9/30/03	08/01/03	4428	15,123,256	\$2.60	\$393,204.66	\$388,016.88		14,923,726		113,121,955
2004	2ND	10/01/03 TO 12/31/03	11/01/03	4439	15,414,963	\$2.60	\$400,789.04	\$392,456.69		15,094,488		115,303,923
2004	3RD	01/01/04 TO 3/31/04	02/01/04	4412	15,753,490	\$2.60	\$409,590.74	\$401,862.22		15,456,239		117,836,105
2004	4TH	4/1/04 TO 6/30/04	05/01/04	4452	12,578,777	\$2.60	\$327,048.20	\$323,250.82		12,432,724		94,089,252
		TOTAL FY 2004			58,870,486		\$1,530,632.64	\$1,505,586.61	98.36%	57,907,177	4,433	440,351,235
2005	1ST	7/1/04 TO 9/30/04	08/01/04	4437	11,254,019	\$2.67	\$300,482.31	\$297,036.54		11,124,964		84,180,062
2005	2ND	10/01/04 TO 12/31/04	11/01/04	4426	15,143,257	\$2.67	\$404,324.96	\$395,321.34		14,806,043		113,271,562
2005	3RD	01/01/05 TO 3/31/05	02/01/05	4421	14,378,057	\$2.67	\$383,894.12	\$378,985.28		14,194,205		107,547,866
2005	4TH	4/1/05 TO 6/30/05	05/01/05	4446	12,360,907	\$3.05	\$377,007.66	\$370,410.72		12,144,614		92,459,584
		TOTAL FY 2005			53,136,240		\$1,465,709.05	\$1,441,753.88	98.37%	52,269,826	4,433	397,459,075
2006	1ST	7/1/05 TO 9/30/05	08/01/05	4424	14,288,622	\$3.05	\$435,802.97	\$424,794.88		13,927,701		106,878,893
2006	2ND	10/01/05 TO 12/31/05	11/01/05	4431	15,111,443	\$3.05	\$460,899.01	\$448,970.73		14,720,352		113,033,594
2006	3RD	01/01/06 TO 3/31/06	02/01/06	4427	12,744,725	\$3.05	\$388,714.11	\$377,866.25		12,389,057		95,330,543
2006	4TH	4/1/06 TO 6/30/06	05/01/06	4439	12,355,200	\$3.05	\$376,833.60	\$367,463.39		12,047,980		92,416,896
		TOTAL FY 2006			54,499,990		\$1,662,249.70	\$1,619,095.25	97.40%	53,085,090	4,430	407,659,925
2007	1ST	7/1/06 TO 9/30/06	08/01/06	4426	14,772,735	\$3.69	\$545,113.92	\$541,485.86		14,674,414		110,500,058
2007	2ND	10/01/06 TO 12/31/06	11/01/06	4428	13,854,082	\$3.69	\$511,215.63	\$516,583.27		13,999,547		103,628,533
		TOTAL FY 2007			28,626,817		\$1,056,329.55	\$1,058,069.13	100.16%	28,673,960	4,427	214,128,591

(1) Difference represents public properties (schools, parks, etc) that do not pay for water / sewer. Difference also represents abatement program for defective equipment and repair of leaks.

Town of Winthrop
Rate and Financial Planning Study
MWRA Monthly Water Use

Schedule 11

	Monthly Flow (mgd)				Monthly Flow (gallons)				Daily Flow (gallons)			
	2003	2004	2005	2006	2003	2004	2005	2006	2003	2004	2005	2006
January		1.579	1.426	1.423		48,949,000	44,206,000	44,113,000		1,579,000	1,426,000	1,423,000
February		1.439	1.403	1.366		40,292,000	39,284,000	38,248,000		1,389,379	1,354,621	1,318,897
March		1.409	1.473	1.364		43,679,000	45,663,000	42,284,000		1,409,000	1,473,000	1,364,000
April		1.458	1.449	1.379		43,740,000	43,470,000	41,370,000		1,458,000	1,449,000	1,379,000
May		1.463	1.494	1.416		45,353,000	46,314,000	43,896,000		1,463,000	1,494,000	1,416,000
June		1.592	1.725	1.45		47,760,000	51,750,000	43,500,000		1,592,000	1,725,000	1,450,000
July	1.735	1.574	1.827	1.569	53,785,000	48,794,000	56,637,000	48,639,000	1,735,000	1,574,000	1,827,000	1,569,000
August	1.631	1.592	1.778		50,561,000	49,352,000	55,118,000		1,631,000	1,592,000	1,778,000	
September	1.57	1.542	1.582	1.303	47,100,000	46,260,000	47,460,000	39,090,000	1,570,000	1,542,000	1,582,000	1,303,000
October	1.472	1.432	1.469		45,624,000	44,392,000	45,539,000		1,471,742	1,432,000	1,469,000	
November	1.475	1.4	1.446		44,250,000	42,000,000	43,380,000		1,475,000	1,400,000	1,446,000	
December	1.509	1.389	1.444		46,779,000	43,059,000	44,764,000		1,509,000	1,389,000	1,444,000	

MWRA Purchase

	Total	Average Day	Peak Day	Peak Factor
FY 2004	557,872,000	1,528,416	1,735,000	1.1352
FY 2005	544,544,000	1,491,901	1,725,000	1.1562
FY 2006	546,309,000	1,496,737	1,827,000	1.2207

Peaking Factor
1.5 for day and 2.0 for hour as a rule of thumb.

Winthrop Billing Information

	Total	Sold as % of Purchased	% Difference
FY 2004	440,351,235	78.93%	21.07%
FY 2005	397,459,075	72.99%	27.01%
FY 2006	407,659,925	74.62%	25.38%

Town of Winthrop
Rate and Financial Planning Study
Water & Sewer Actual Results (provided by Mike Bertino)

Schedule 12

	Water 2004	Water 2005	Water 2006	Sewer 2004	Sewer 2005	Sewer 2006
Revenues						
User Charges	\$ 1,360,168	\$ 1,626,329	\$ 1,593,338	\$ 3,123,169	\$ 2,636,725	\$ 2,755,000
Connection Fess						
Other Inc	278,188	70,923	114,039	50,943	32,270	94,485
Invest. Inc.						
Fund Balance for Budget	143,628	24,106	113,397		123,076	
Total Revenues	<u>\$ 1,781,984</u>	<u>\$ 1,721,358</u>	<u>\$ 1,820,774</u>	<u>\$ 3,174,112</u>	<u>\$ 2,792,071</u>	<u>\$ 2,849,485</u>
Expenses						
Salaries & Wages	\$ 567,788	\$ 435,311	\$ 521,955	\$ 372,360	\$ 382,026	\$ 457,383
Expenses	1,214,196	1,286,047	1,298,819	2,470,225	2,410,045	2,354,110
Capital Reserve						
Total Expenses	<u>\$ 1,781,984</u>	<u>\$ 1,721,358</u>	<u>\$ 1,820,774</u>	<u>\$ 2,842,585</u>	<u>\$ 2,792,071</u>	<u>\$ 2,811,493</u>
Capital Encumbrances	93,290 115,300	27,990	65,661	80,400 273,685	122,000 42,277	140,000
Fund Balance After Encumbrances		93,401	(21,061)		109,879	89,354