

**Centerville-Osterville-Marstons Mills  
Water Department**

**Water Rate Review**



Prepared by Financial Advisory Associates, Inc.  
258 Main Street, Suite A2  
Buzzards Bay, MA 02532

April 29, 2005

**FAA**  
**Financial Advisory Associates, Inc.**

April 29, 2005

Centerville-Osterville-Marstons Mills  
Water Department  
P. O. Box 369  
Osterville, MA 02655

Dear Water Commissioners:

Financial Advisory Associates, Inc. (FAA) is pleased to present our Water Rate Review to the District.

**Objectives**

The scope of our engagement was to address the following concerns expressed by your staff:

- Review of historical budget data for the purpose of trend analysis.
- Review of current block rate structure for the purposes of user equity and resource conservation.
- Confirmation that the existing water rates and fees will recover the full cost of operating, maintaining and rehabilitating the current system and any system expansion.
- Identification of other issues of importance to the Commissioners.

**Results**

This report was prepared to assure the water commissioners that they continue to have a favorable fee and water rate structure and to provide information that will assist the commissioners with their long-term planning. This review provides the board members with an opportunity to confirm that they have a solid financial foundation as they continue to manage the growth of the water district.

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The actions suggested within this report enable the commissioners to continue to achieve the following results:

- Generate the appropriate level of revenue for the utility system.
- Maintain rate-setting practices that encourage water conservation.
- Maintain the district's policy of full cost recovery.
- Maintain the district's policy of funding the system's expansion costs through the assessment of fees to new users.
- Provide near-term rate stability to all water system users.

It was our pleasure to work with you and your staff of professionals on behalf of the citizens of the Centerville-Osterville-Marstons Mills Water Department. Please know that we will be available to assist the department in the future. Please feel free to contact us with any questions or concerns you may have regarding this report.

Thank you for this opportunity to be of service.

Sincerely,

FINANCIAL ADVISORY ASSOCIATES, INC.

Michael Daley  
President

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## Introduction

The Centerville – Osterville – Marstons Mills Fire District (C-O-MM) currently charges their water utility users according to a 3-step block rate structure based on consumption as follows:

<u>Block</u>	<u>Water Rate</u>
0 – 20,000 gallons	\$35 minimum charge
20,001 to 200,000 gallons	\$2.90 per 1000 gallons
200,001 plus	\$3.95 per 1000 gallons

C-O-MM accounts for water operations in a special revenue fund. It has been the policy of the district to fund the utility through rates, connection charges and other miscellaneous utility revenue in order to assure that the full costs of the utility are recovered from ratepayers and not subsidized by the property tax. Also, the district imposes a system development charge to recover the capital costs of the expansion of the water supply and distribution system. All new customers who connect to the public water supply pay this charge based on meter size. The current system development charges are:

5/8” meter -	\$ 2,100
3/4” meter -	2,875
1” meter -	4,465

The district has authorized this review in order to assess the utility's financial position, to project costs through FY 2007 and to confirm that current rates will provide full cost recovery.

The objectives of this rate review, as defined by the district’s commissioners are as follows:

1. To confirm that the water rates in place will recover the full cost of operating, maintaining and rehabilitating the current system based on costs forecasted for the period of FY 2005 to FY 2007.
2. To confirm the system development charges in place will recover the costs associated with system expansion.
3. To identify for the Commissioners any additional steps they can take to optimize financial operations.

The Board of Water Commissioners met with us during a workshop meeting on March 2, 2005. As part of that workshop we reviewed and discussed in depth the following administrative and financially based observations.

**Revenue:**

- District experienced diminished consumption and rate revenue in FY 04.
- Miscellaneous water revenue is consistently up over the last three years.
- Fire Service Application Fees should be considered as a new fee.
- System Development revenue is over \$550,000 in past three years.
- We believe that the Balance Sheet Systems Development Accounts Receivable balance we reviewed should be restated.
- New user accounts increased between FY 2004 and FY 2005 by about 75. This growth rate is down from previous periods and buildout forecasts.
- There hasn't been 1,000,000,000 gallons of use per year since FY 2003. There were three years over 1,000,000,000 during the last six fiscal years.

**Expenses:**

- O&M Expenditure growth 2002 to 2003 was 2.8%.
- O&M Expenditure growth 2003 to 2004 was 6.2%.
- O&M Expenditure growth 2004 to 2005 is budgeted at 3.3%.
- O&M Expenditure growth 2005 to 2006 is budgeted at 4.8%.
- Debt Service has diminished 33% from 2002 to 2006.
- Debt Service will diminish another 39% from 2006 to 2008.
- Current Capital Plan is minimal in FY 2007 and FY 2008.
- Opportunity exists to issue debt with minimal rate impact.

**Fund Balance:**

- FY 's 2002 and 2003 Ending Water Fund Surplus was about 30% of the system's annual revenue.
- FY 2004 Ending Water Fund Surplus was down to about 22% of the system's annual revenue.
- FY 2005 is budgeted at break-even. FAA expects surplus will grow.
- FY 2006 could end with a Water Surplus of about 10% of annual revenues.

**Other Issues:**

- Indirect Costs allocations should be closely reviewed with Prudential Committee. Accounting records are not clear.
- Management letter notes accounting issues with accounting for receivables. We agree.
- Water Surplus Account should be reviewed in detail at each year-end. . Accounting records are not clear.
- Current System Development Charges are above market.
- \$2.2 million of pending expansion – consider a schedule for debt sale in FY 2008

## **Water Utility Costs, Non-User Fee Revenue and Net Utility Revenue Requirement**

*Exhibit I* presents the water utility costs, non-rate revenues, and the user fee net revenue requirement to operate and maintain the utility through FY 2007.

### **Direct Costs**

The direct costs of the district's water utility include the costs of operating the utility that are clearly identifiable and associated with its day-to-day operations such as staff, materials, supplies and contractual services. *Exhibit I* presents the direct costs for FY 2002 (actual 6/30/02), FY 2003 (actual 6/30/03), FY 2004 (actual 6/30/03), FY 2005 (approved budget), FY 2006 (requested budget) and FY 2007 forecasted. The detailed direct costs by category of expenditure with related assumptions are presented in *Appendix A* of this report.

### **Indirect Costs**

The indirect costs of the utility are the appropriate overhead costs of running the water operation. Indirect costs include the benefits and insurance costs related to utility staff, general insurance costs related to the utility, and an allocation of time spent by the district's financial, administrative and support staff that benefits the utility.

The indirect cost allocations in this study are based on the following assumptions:

- ◆ Health insurance has been allocated based on the historical clerk/treasurer allocation of the Blue Cross/Blue Shield, Medex and dental insurance for water department personnel.
- ◆ Medicare and Social Security is based on the historical clerk/treasurer allocation.
- ◆ Retirement is based on the historical clerk/treasurer allocation.
- ◆ Prudential staff time and other expenses are based on the historical clerk/treasurer allocation.

### **Capital Improvements/Debt Service**

The review includes all existing debt service, authorized and unissued debt as well as the costs of planned capital improvements that will be funded on an annual basis to maintain the current infrastructure.

## **Water Utility Costs/Revenue (continued)**

### **Non-User Fee/Rate Revenue**

The annual water user charges are not the only source of revenue to the district's utility although they are the principal source. Other revenues are shut off charges, miscellaneous service revenue, penalties and interest for late payment on bills and antenna revenue. These revenues are presented in order to determine the net requirement of revenue that will need to be raised from rates in order to recover the full costs of the utility.



**Centerville-Osterville-Marstons Mills Water Department**  
**Exhibit 1**  
**Schedule of Expenditures, Non-Rate Revenues And Rate Revenue Requirements**

	Actual FY 2002	Actual FY 2003	Actual FY 2004	Budget FY 05	Requested FY 06	Forecasted FY 07
<b>DIRECT COSTS:</b>						
<b>Labor &amp; Salaries</b>						
<b>Subtotal</b>	531,504	582,284	598,725	651,278	693,956	721,714
<b>Operating Expenses:</b>						
<b>Subtotal</b>	633,115	614,819	672,691	661,723	682,092	714,774
<b>Total Direct Costs</b>	1,164,620	1,197,103	1,271,415	1,313,000	1,376,048	1,436,489
<b>INDIRECT COSTS:</b>						
<b>Total Indirect Costs</b>	\$ 374,281	\$ 401,390	\$ 421,392	\$ 432,665	\$ 511,236	\$ 546,109
<b>DEBT &amp; CAPITAL IMPROVEMENTS:</b>						
<b>Annually Funded Capital</b>						
Meter replacement	\$ 71,556	\$ 99,956	\$ 81,892	\$ 102,000	\$ 105,000	\$ 105,000
New equipment	3,443	3,369	3,500	3,000	3,000	3,000
<b>Debt Service:</b>						
<b>Issued Debt</b>						
Existing Principal	541,911	561,799	453,372	447,754	447,754	439,327
Existing Interest	176,638	156,611	126,602	102,260	79,487	56,758
New Principal - Tank/Pum Stn	-	-	-	-	-	-
New Interest - Tank/Pum Stn	-	-	-	-	-	-
<b>BANs</b>						
Tank	-	-	-	-	-	-
Pumping stations	73,884	-	-	-	-	-

**Centerville-Osterville-Marstons Mills Water Department**  
**Exhibit 1**  
**Schedule of Expenditures, Non-Rate Revenues And Rate Revenue Requirements**

	Actual FY 2002	Actual FY 2003	Actual FY 2004	Budget FY 05	Requested FY 06	Forecasted FY 07
<b>Capital Projects/Articles</b>						
Old Stage tank refurb II	125,000	-	-	-	-	-
Contract labor	75,000	75,000	125,000	100,000	285,000	100,000
Installation of water mains	200,000	125,000	315,000	-	-	-
Water system improvements	105,000	60,000	165,000	-	-	-
SCADA upgrade	-	80,000	-	-	-	-
Consultant studies	12,000	-	20,000	-	-	-
New Vehicles	45,000	44,901	33,082	40,000	19,898	40,000
Land Purchase	-	-	140,000	285,000	250,000	-
New Well Development	370,000	-	125,000	220,000	178,884	-
Equipment/Facilities - New	-	-	-	320,000	-	-
Equipment/Facilities - Major Maintenance	-	-	-	-	20,000	-
New Tank	-	-	-	30,000	-	-
<b>TOTAL CAPITAL AND DEBT</b>	<b>1,799,432</b>	<b>1,206,636</b>	<b>1,588,448</b>	<b>1,650,014</b>	<b>1,389,023</b>	<b>744,085</b>
<b>TOTAL UTILITY COSTS</b>	<b>3,338,333</b>	<b>2,805,130</b>	<b>3,281,256</b>	<b>3,395,680</b>	<b>3,276,306</b>	<b>2,726,683</b>
<b>REVENUE AND OTHER SOURCES OF FUNDS</b>						
Misc Water Revenue	66,107	75,962	86,154	-	60,000	60,000
Systems Development Fees	205,850	163,775	181,475	80,000	150,000	150,000
Water Liens	818	46	13,136	-	1,000	1,000
Investment Income	60,459	0	22,168	12,153	10,401	11,000
Other Financing Sources	40,000	37,237	28,358	915,000	42,782	-
<b>TOTAL NON-RATE REVENUE AND SOURCES:</b>	<b>373,235</b>	<b>277,021</b>	<b>331,291</b>	<b>1,007,153</b>	<b>264,183</b>	<b>222,000</b>
<b>ANNUAL RATE REVENUE REQUIREMENT:</b>	<b>\$ 2,965,098</b>	<b>\$ 2,528,109</b>	<b>\$ 2,949,965</b>	<b>\$ 2,388,527</b>	<b>\$ 3,012,123</b>	<b>\$ 2,504,683</b>

## Consumption/Usage Analysis

In addition to determining and identifying the full costs, other revenues and the net revenue requirements of the water utility, the annual billed consumption/usage must be known before a rate can be calculated.

The district's water department staff read meters on a semi-annual basis. Every user receives a bill each January and each July for their actual usage (above the minimum).

The consumption per metered account is recorded in meter reading books and entered into the district's water billing software. This software program produces the water bills and provides reports of total consumption data per account and total consumption by discrete block increments, indicating usage and the number of accounts per block.

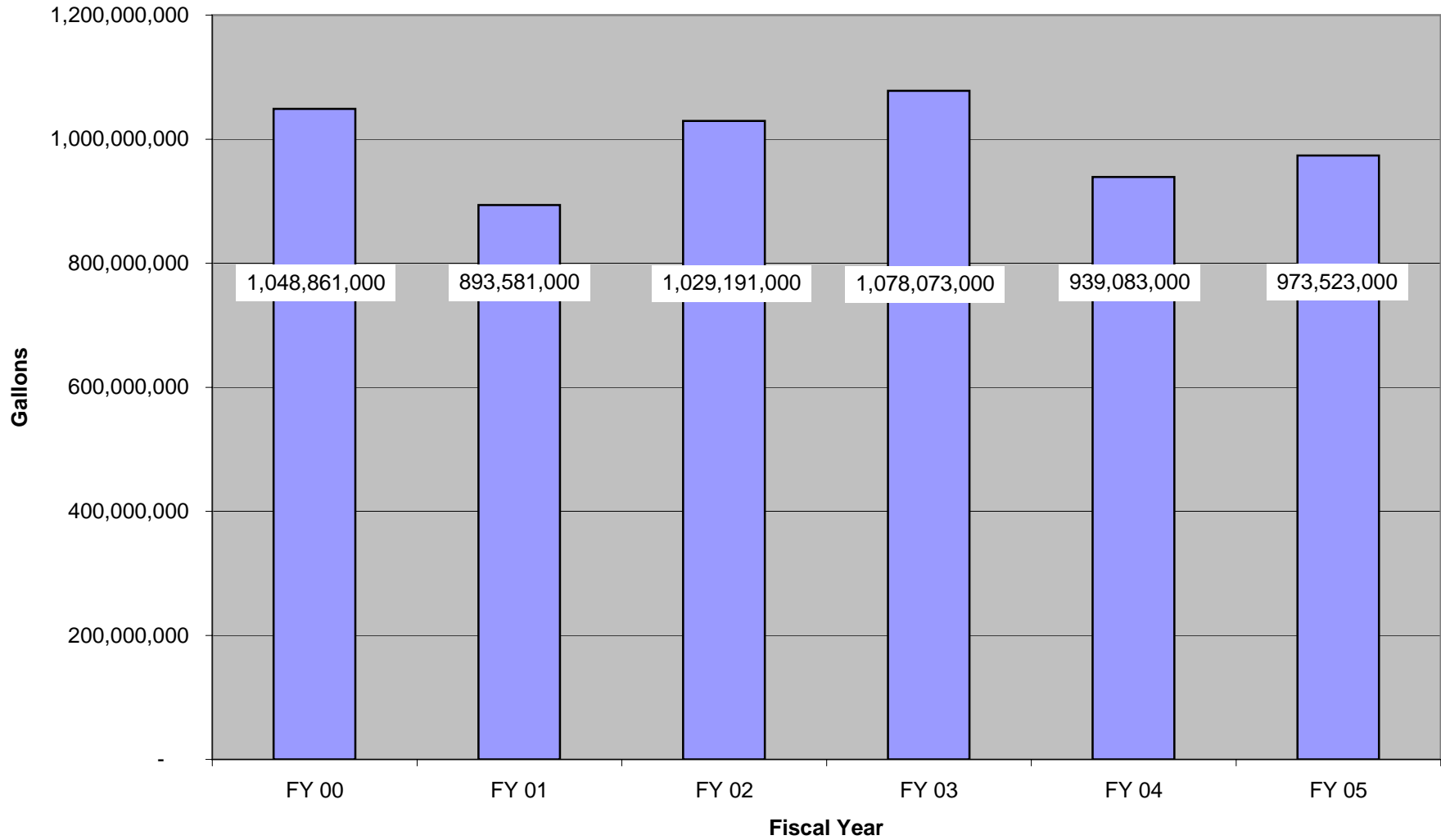
The district's total billed water consumption has fluctuated in recent years. Total consumption per billing period for the past four years has been as follows:

<u>Year</u>	<u>Total Billed Usage</u>
<b>Winter /Spring Billing</b>	
2001	382,569,000 gallons
2002	334,975,000 gallons
2003	346,279,000 gallons
2004	352,594,000 gallons
<b>Summer/Fall Billing</b>	
2002	646,622,000 gallons
2003	744,116,000 gallons
2004	592,804,000 gallons
2005	620,929,000 gallons

*Appendix B* presents an analysis of usage for the past six years by:

- ◆ Usage by block
- ◆ Percentage of usage within each block
- ◆ Number of customer accounts ending in each block
- ◆ Percentage of customer accounts within each block.

### C-O-MM Water Department Annual Water Usage



**Consumption/Usage Analysis (continued)**

The district bills its water customers based upon an ascending block (three-block) structure in order to promote conservation, which is also a goal of the state environmental agencies. The median usage by block for the winter and summer billing periods over the past three years is presented below:

<u>Block</u>	<b>Winter/Spring</b>		<b>Summer/Fall</b>	
	<u>Accounts</u>	<u>Usage in Block</u>	<u>Accounts</u>	<u>Usage in Block</u>
0- 20,000	5,004	179,395,000	3,248	206,040,000
20,000 - 200,000	6,640	146,552,000	8,161	464,993,000
201,000 plus	<u>50</u>	<u>14,208,000</u>	<u>325</u>	<u>50,042,000</u>
	11,694	339,155,000	11,734	721,075,000

It is important to note that the first block (0 - 20,000 gallons) is based on a minimum bill; a customer that uses 5,000 gallons or the full 20,000 gallons will each pay \$35 per every six-month period.

For purposes of projecting water rate revenues in the future years, this review used the actual FY 2005 consumption and use patterns. The district’s six-year median fiscal year gross usage equates to 977,051,000. While user growth is expected to increase, we have seen a trend of less new user growth than was anticipated in the master plan. We have also not seen a fiscal year exceed the 1,000,000,000 gallons mark since FY 2003.

The actual FY 2005 gross use was 973,523,000. The current vintage of this gross usage coupled with the proximity to the six-year median usage led us to use the individual FY 2005 block use patterns to test the capacity of the current user rate structure for the next two years. We believe this use pattern provides us with both a statistically sound and a fiscally conservative usage pattern for the purposes of this review.

## System Development Charges

The purpose of the system development charge is to recover the capital costs associated with the expansion of the system including wells, pump stations and new mains in order to provide water to new users who will connect to the system. The district reviewed and adjusted the system development charges in 2004. Since that time users have paid to connect to the system based on meter size as follows:

	<u>FY 2004</u>	<u>FY 2005</u>
5/8" meter -	\$ 2,100	\$ 2,100
3/4" meter -	2,875	2,875
1" meter -	4,465	4,465

There are several capital projects that are planned for the expansion of the system in future years. These projects will provide capacity for new customers/connections. Specifically they are:

New water tank	\$ 2,000,000
Two (2) new wells	\$ 2,000,000 (\$1,000,000 per well)

During our last engagement we reviewed the estimated build out work prepared for the district by a consulting engineer. Using that information we developed the current system development charges.

The system development charge has been calculated by dividing the total present worth cost of the future expansion costs by the total potential new customers. Also, there is an assumption that the same annual mix of connections by meter size continues in the future, and that there is an annual average of 130 connections through the build out period. System development charges have been calculated based on meter size and they are consistent with the district's prior system development charge structure, which was based upon the rated maximum flow capacity of the specific meter size.

The system development charges required to recover the costs of expansion necessary to provide the capacity for these new customers is based upon the assumptions stated above. They are being monitored and price changes will be phased in as time and actual activity proceeds over the years.

It is possible that the district may fund the projects through cash reserves and save the significant interest costs of bonding the projects. It is important to understand that these system development charges are expected to generate a total of more than \$6 million in revenue through FY 2023. District officials plan to continue to monitor these rates periodically and to increase them to recover the full costs of expansion as the actual costs of the growth become more refined and when there is a better understanding of the plans for funding through reserves or through the issuance of debt.

It should also be noted that the build out report prepared by Tighe & Bond has identified another 1,571 potential connections located within the West Barnstable Fire District. The District's movement into this area of town will result in an entirely new set of calculations.

## **Recommendations**

### **1. Maintain current rate structure.**

The current rate structure appears to be sufficient to meet the needs of the district into FY 2007 and perhaps beyond.

The Commission should implement a policy of annual rate reviews and adjustments as they become necessary.

### **2. Improve budgeting and accounting for indirect costs.**

During the period of our review, the water department has experienced significant changes in the level of indirect costs allocated upon it by the Prudential Committee. In FY 2002 the indirect costs allocated to the water department were \$374,281. In FY 2006 the budgeted allocation is \$511,236. The increase is almost 37 percent.

During the same period the direct costs, which are under the control of the water commissioners grew from \$1,164,620 actually expended during FY 2002 to the \$1,376,048, budgeted for FY 2006. These costs, which are under the direct control of the water department, rose only 5.5 percent during the same period.

It appears that the total indirect cost expenses budgeted by the Prudential Committee automatically becomes the total indirect costs charged to the water department each fiscal year. It is unrealistic to believe that each of the budgeted indirect cost line items eventually became the exact costs incurred during every fiscal year since FY 2002.

The water department should be provided with quarterly reports that account for the exact costs incurred for their indirect expenses. Upon review and acceptance of the charges, the Water Commissioners should approve the payments for the indirect costs before the transactions are processed against their budget. This change will eliminate the fire district's past practice of charging water rate payers for expenses not actually incurred by the water department.

### **3. Consider establishing a contingency budget.**

The district does not presently build a contingency provision into the annual water department budget. The Prudential Committee does have such a line item in their budget. In addition to the Prudential Committee line item, the district appropriates a reserve fund as allowed under the Massachusetts General Laws.

While the water department should not access the Prudential Committee's budgeted contingency line, the department could seek funding from the reserve fund. This would result in a tax subsidy since the source of the reserve fund is non-water revenue.

When preparing the next budget, the Commissioners and the Prudential Committee should consider adding a contingency or reserve fund line item into the water department's budget.



# **APPENDIX**

**Centerville-Osterville-Marstons Mills Water Department      \*APPENDIX A\***  
**Schedule of Revenues, Expenditures And Changes in Fund Balance**

	Actual FY 2002	Actual FY 2003	Actual FY 2004	Budget FY 05	Requested FY 06	Forecasted FY 07	Comments
<b>REVENUE AND OTHER SOURCES OF FUNDS</b>							
<b>Revenue:</b>							
Rates & Service	\$ 2,867,398	\$ 3,082,609	\$ 2,585,130	\$ 2,388,527	\$ 2,587,466	\$ 2,587,466	Current Rates - FY 05 Use = 973.5 - Median = 977
Misc Water Revenue	66,107	75,962	86,154	-	60,000	60,000	
Systems Development Fees	205,850	163,775	181,475	80,000	150,000	150,000	
Water Liens	818	46	13,136	-	1,000	1,000	
Investment Income	60,459	0	22,168	12,153	10,401	11,000	
<b>Total Revenue:</b>	<b>3,200,633</b>	<b>3,322,393</b>	<b>2,888,063</b>	<b>2,480,680</b>	<b>2,808,867</b>	<b>2,809,466</b>	
<b>Other Financing Sources:</b>							
Bond Proceeds	-	-	-	-	-	-	
Transfers From Designated FB	40,000	37,237	20,082	28,358	42,782	-	
Other Financing Sources	-	-	-	886,642	-	-	
<b>Total Other Financing Sources:</b>	<b>40,000</b>	<b>37,237</b>	<b>20,082</b>	<b>915,000</b>	<b>42,782</b>	<b>-</b>	<b>-</b>
<b>TOTAL REVENUE AND OTHER SOURCES OF FUNDS:</b>	<b>3,240,633</b>	<b>3,359,630</b>	<b>2,908,145</b>	<b>3,395,680</b>	<b>2,851,649</b>	<b>2,809,466</b>	<b>-</b>
<b>DIRECT COSTS:</b>							
<b>Labor &amp; Salaries</b>							
Salaries and Wages	\$ 481,200	\$ 515,695	\$ 538,940	\$ 576,021	\$ 618,700	\$ 643,448	Increased at 4.0% (COLA, Steps & Merit)
Overtime, Standby & Longevity	50,304	66,589	59,785	75,256	75,256	78,266	Increased at 4.0% (COLA, Steps & Merit)
<b>Subtotal</b>	<b>531,504</b>	<b>582,284</b>	<b>598,725</b>	<b>651,278</b>	<b>693,956</b>	<b>721,714</b>	
<b>Operating Expenses:</b>							
Chemicals	78,774	92,951	72,442	86,000	88,000	90,640	Increased at 3%
DEP assessment	8,784	7,432	9,002	9,223	8,492	8,746	Increased at 3%
Electricity	203,316	202,295	208,941	215,000	223,000	238,610	Increased at 7%
Equipment operating expense	30,109	17,660	25,916	38,000	40,000	41,200	Increased at 3%
Gas & Diesel	-	14,282	20,076	-	-	-	Increased at 3%
General Operating/Pers Req	7,681	9,517	8,015	-	-	-	Increased at 3%
General Operating/Bldg-Dist	70,332	68,555	92,272	98,000	98,000	100,940	Increased at 3%
Office Supplies/Postage	37,018	34,618	33,165	35,000	36,000	37,080	Increased at 3%
Pump Station Operations	98,697	80,602	111,772	97,000	100,000	105,000	Increased at 5%
Distribution system expense	54,676	59,935	70,385	60,000	65,000	68,250	Increased at 5%
Telephone	9,012	8,660	9,678	9,500	9,600	9,888	Increased at 3%
Professional services	34,716	18,311	11,026	14,000	14,000	14,420	Increased at 3%
<b>Subtotal</b>	<b>633,115</b>	<b>614,819</b>	<b>672,691</b>	<b>661,723</b>	<b>682,092</b>	<b>714,774</b>	
<b>Total Direct Costs</b>	<b>\$ 1,164,620</b>	<b>\$ 1,197,103</b>	<b>\$ 1,271,415</b>	<b>\$ 1,313,000</b>	<b>\$ 1,376,048</b>	<b>\$ 1,436,489</b>	

**Centerville-Osterville-Marstons Mills Water Department    \*APPENDIX A\***  
**Schedule of Revenues, Expenditures And Changes in Fund Balance**

	Actual FY 2002	Actual FY 2003	Actual FY 2004	Budget FY 05	Requested FY 06	Forecasted FY 07	Comments
<b>INDIRECT COSTS:</b>							
Allocated costs of Prudential staff	\$ 33,143	\$ 26,278	\$ 20,383	\$ 17,841	\$ 18,376	\$ 19,112	Increased at 4.0% (COLA, Steps & Merit)
Employee benefits/insurance:							
BC/BS	168,422	180,748	180,748	192,144	247,119	269,360	Increased at 9%
Medex	19,613	13,498	13,498	21,168	25,772	28,091	Increased at 9%
Dental	13,517	13,507	13,507	12,816	15,434	15,897	Increased at 3%
Life insurance	805	805	805	420	515	520	Increased at 1%
Medicare	7,100	9,545	9,545	6,721	9,727	10,116	Increased at 4%
Social Security	-	250	250	500	500	500	Level funded
<b>Subtotal</b>	<b>209,457</b>	<b>218,353</b>	<b>218,353</b>	<b>233,769</b>	<b>299,067</b>	<b>324,484</b>	
Retirement assessment	63,881	67,717	94,336	74,509	81,545	85,214	Increased at 4.5%
General insurance	64,800	66,600	66,600	82,244	94,248	98,489	Increased at 4.5%
Info System/Other Prof Services	3,000	22,442	21,721	24,302	17,999	18,809	Increased at 4.5%
<b>Total Indirect Costs</b>	<b>374,281</b>	<b>401,390</b>	<b>421,392</b>	<b>432,665</b>	<b>511,236</b>	<b>546,109</b>	
<b>DEBT &amp; CAPITAL IMPROVEMENTS:</b>							
<b>Annually Funded Capital</b>							
Meter replacement	71,556	99,956	81,892	102,000	105,000	105,000	Level funded
New equipment	3,443	3,369	3,500	3,000	3,000	3,000	Level funded
<b>Debt Service:</b>							
<b>Issued Debt</b>							
Existing Principal	541,911	561,799	453,372	447,754	447,754	439,327	per Debt Service Schedules
Existing Interest	176,638	156,611	126,602	102,260	79,487	56,758	per Debt Service Schedules
New Principal - Tank/Pum Stn	-	-	-	-	-	-	Estimated by FAA
New Interest - Tank/Pum Stn	-	-	-	-	-	-	Estimated by FAA
<b>BANs</b>							
Tank	-	-	-	-	-	-	Estimated by FAA
Pumping stations	73,884	-	-	-	-	-	Estimated by FAA

**Centerville-Osterville-Marstons Mills Water Department    \*APPENDIX A\***  
**Schedule of Revenues, Expenditures And Changes in Fund Balance**

	Actual FY 2002	Actual FY 2003	Actual FY 2004	Budget FY 05	Requested FY 06	Forecasted FY 07	Comments
<b>Capital Projects/Articles</b>							
Old Stage tank refurb II	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -	
Contract labor	75,000	75,000	125,000	100,000	285,000	100,000	FY 06 to FY 07 per Capital Plan
Installation of water mains	200,000	125,000	315,000	0	-	-	FY 06 to FY 07 per Capital Plan
Water system improvements	105,000	60,000	165,000	0	-	-	FY 06 to FY 07 per Capital Plan
SCADA upgrade	-	80,000	0	0	-	-	FY 06 to FY 07 per Capital Plan
Consultant studies	12,000	-	20,000	0	-	-	FY 06 to FY 07 per Capital Plan
New Vehicles	45,000	44,901	33,082	40,000	19,898	40,000	FY 06 to FY 07 per Capital Plan
Land Purchase	-	-	140,000	285,000	250,000	-	FY 06 to FY 07 per Capital Plan
New Well Development	370,000	-	125,000	220,000	178,884	-	FY 06 to FY 07 per Capital Plan
Equipment/Facilities - New	-	-	0	320,000	-	-	FY 06 to FY 07 per Capital Plan
Equipment/Facilities - Major Maintenance	-	-	0	0	20,000	-	FY 06 to FY 07 per Capital Plan
New Tank	-	-	0	30,000	-	-	FY 06 to FY 07 per Capital Plan
<b>TOTAL CAPITAL AND DEBT</b>	<b>1,799,432</b>	<b>1,206,636</b>	<b>1,588,448</b>	<b>1,650,014</b>	<b>1,389,023</b>	<b>744,085</b>	
<b>TOTAL UTILITY COSTS</b>	<b>\$ 3,338,333</b>	<b>\$ 2,805,130</b>	<b>\$ 3,281,256</b>	<b>\$ 3,395,680</b>	<b>\$ 3,276,306</b>	<b>\$ 2,726,683</b>	
<b>Other Financing Uses:</b>							
Transfers To/(From) Designated FB	37,652	489,696	(10,302)	-	-	-	
Other Financing Sources	-	-	-	-	-	-	
<b>Total Other Financing Sources:</b>	<b>37,652</b>	<b>489,696</b>	<b>(10,302)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>TOTAL EXPENDITURES AND OTHER USES OF FUNDS:</b>	<b>3,375,985</b>	<b>3,294,826</b>	<b>3,270,954</b>	<b>3,395,680</b>	<b>3,276,306</b>	<b>2,726,683</b>	<b>-</b>
<b>NET REVENUE/OFS OVER/(UNDER) EXPENSES/OFU:</b>	<b>\$ (135,351)</b>	<b>\$ 64,805</b>	<b>\$ (362,809)</b>	<b>\$ -</b>	<b>\$ (424,657)</b>	<b>\$ 82,783</b>	
<b>BEGINNING WATER SURPLUS BALANCE:</b>	<b>\$ 1,076,757</b>	<b>\$ 941,405</b>	<b>\$ 1,006,210</b>	<b>\$ 643,401</b>	<b>\$ 643,401</b>	<b>\$ 218,744</b>	
<b>ENDING WATER SURPLUS BALANCE:</b>	<b>\$ 941,405</b>	<b>\$ 1,006,210</b>	<b>\$ 643,401</b>	<b>\$ 643,401</b>	<b>\$ 218,744</b>	<b>\$ 301,527</b>	
<b>Fund Balance as % of Total Revenue:</b>	<b>29.41%</b>	<b>30.29%</b>	<b>22.28%</b>	<b>25.94%</b>	<b>7.79%</b>	<b>10.73%</b>	

**C-O-MM Water Department** **\*APPENDIX B\***  
**Historical Usage by Semi-Annual Period (Winter vs. Summer)**

		<b>FY 2005</b>							
		<b>Winter/Spring - July 2004</b>				<b>Summer/Fall - January 2005</b>			
	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	
<b>Block 1</b>	5,004	47,468,000	42.8%	13.5%	3,248	36,320,000	27.7%	5.8%	
<b>Block 2</b>	6,640	280,918,000	56.8%	79.7%	8,161	469,567,000	69.6%	75.6%	
<b>Block 3</b>	50	24,208,000	0.4%	6.9%	325	115,042,000	2.8%	18.5%	
	<b>11,694</b>	<b>352,594,000</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,734</b>	<b>620,929,000</b>	<b>100%</b>	<b>100.0%</b>	
<b>TOTAL FY 2005 CONSUMPTION:</b>						<b><u>973,523,000</u></b>			

		<b>FY 2004</b>							
		<b>Winter/Spring - July 2003</b>				<b>Summer/Fall - January 2004</b>			
	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	
<b>Block 1</b>	5,050	48,095,000	43.5%	13.9%	3,292	37,432,000	28.2%	6.3%	
<b>Block 2</b>	6,504	270,057,000	56.0%	78.0%	8,066	452,159,000	69.2%	76.3%	
<b>Block 3</b>	61	28,127,000	0.5%	8.1%	301	103,213,000	2.6%	17.4%	
	<b>11,615</b>	<b>346,279,000</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,659</b>	<b>592,804,000</b>	<b>100%</b>	<b>100.0%</b>	
<b>TOTAL FY 2004 CONSUMPTION:</b>						<b><u>939,083,000</u></b>			

		<b>FY 2003</b>							
		<b>Winter/Spring - July 2002</b>				<b>Summer/Fall - January 2003</b>			
	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	
<b>Block 1</b>	4,962	47,042,000	43.1%	14.1%	2,464	28,057,000	21.3%	3.8%	
<b>Block 2</b>	6,500	268,632,000	56.5%	80.4%	8,618	549,693,000	74.5%	73.9%	
<b>Block 3</b>	44	18,283,000	0.4%	5.5%	487	166,366,000	4.2%	22.4%	
	<b>11,506</b>	<b>333,957,000</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,569</b>	<b>744,116,000</b>	<b>100%</b>	<b>100.0%</b>	
<b>TOTAL FY 2003 CONSUMPTION:</b>						<b><u>1,078,073,000</u></b>			

**C-O-MM Water Department** **\*APPENDIX B\***  
**Historical Usage by Semi-Annual Period (Winter vs. Summer)**

<b>FY 2002</b>								
<b>Winter/Spring - July 2001</b>					<b>Summer/Fall - January 2002</b>			
	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>
<b>Block 1</b>	4,300	40,951,000	37.8%	10.7%	2,926	32,940,000	25.1%	5.1%
<b>Block 2</b>	7,010	315,583,000	61.6%	82.5%	8,375	488,153,000	71.7%	75.5%
<b>Block 3</b>	63	26,035,000	0.6%	6.8%	379	125,529,000	3.2%	19.4%
	<b>11,373</b>	<b>382,569,000</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,680</b>	<b>646,622,000</b>	<b>100.0%</b>	<b>100.0%</b>
<b>TOTAL FY 2002 CONSUMPTION:</b>						<b><u>1,029,191,000</u></b>		

<b>FY 2001</b>								
<b>Winter/Spring - July 2000</b>					<b>Summer/Fall - January 2001</b>			
	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>
<b>Block 1</b>	5,241	49,363,000	46.6%	57.3%	2,760	32,205,000	24.40%	34.00%
<b>Block 2</b>	5,970	232,746,000	53.1%	40.1%	8,271	466,616,000	73.10%	58.70%
<b>Block 3</b>	29	13,600,000	0.3%	2.6%	276	99,051,000	2.40%	7.30%
	<b>11,240</b>	<b>295,709,000</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,307</b>	<b>597,872,000</b>	<b>100%</b>	<b>100%</b>
<b>TOTAL FY 2001 CONSUMPTION:</b>						<b><u>893,581,000</u></b>		

<b>FY 2000</b>								
<b>Winter/Spring - July 1999</b>					<b>Summer/Fall - January 2000</b>			
	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>	<b>Accounts</b>	<b>Use</b>	<b>% of Accounts</b>	<b>% of Use</b>
<b>Block 1</b>	4,569	43,187,000	41.2%	13.3%	2,198	204,755,000	19.7%	28.3%
<b>Block 2</b>	6,499	269,811,000	58.6%	83.1%	8,505	441,523,000	76.2%	61.0%
<b>Block 3</b>	30	11,764,000	0.3%	3.6%	464	77,821,000	4.2%	10.7%
	<b>11,098</b>	<b>324,762,000</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,167</b>	<b>724,099,000</b>	<b>100.0%</b>	<b>100.0%</b>
<b>TOTAL FY 2000 CONSUMPTION:</b>						<b><u>1,048,861,000</u></b>		

**C-O-MM Water Department                      \*APPENDIX B\***  
**Historical Billing by Semi-Annual Period (Winter vs. Summer)**

FY 2005										
Winter/Spring - July 2004						Summer/Fall - January 2005				
	Accounts	Use	Billed	% of Accounts	% of Billing	Accounts	Use	Billed	% of Accounts	% of Billing
<b>Block 1</b>	5,004	181,268,000	\$ 409,290	42.8%	44.4%	3,248	206,040,000	\$ 410,690	27.7%	24.6%
<b>Block 2</b>	6,640	157,118,000	455,642	56.8%	49.5%	8,161	364,847,000	1,058,056	69.6%	63.5%
<b>Block 3</b>	50	14,208,000	56,122	0.4%	6.1%	325	50,042,000	197,666	2.8%	11.9%
	<b>11,694</b>	<b>352,594,000</b>	<b>\$ 921,054</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,734</b>	<b>620,929,000</b>	<b>\$ 1,666,412</b>	<b>100.0%</b>	<b>100.0%</b>
								<b>TOTAL FY 2005 Rate Billings: <u>\$ 2,587,466</u></b>		

FY 2004										
Winter/Spring - July 2003						Summer/Fall - January 2004				
	Accounts	Use	Billed	% of Accounts	% of Billing	Accounts	Use	Billed	% of Accounts	% of Billing
<b>Block 1</b>	5,050	179,395,000	\$ 406,525	43.5%	44.8%	3,292	204,772,000	\$ 408,065	28.2%	25.9%
<b>Block 2</b>	6,504	150,957,000	437,775	56.0%	48.3%	8,066	345,019,000	1,000,555	69.2%	63.4%
<b>Block 3</b>	61	15,927,000	62,912	0.5%	6.9%	301	43,013,000	169,901	2.6%	10.8%
	<b>11,615</b>	<b>346,279,000</b>	<b>\$ 907,212</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,659</b>	<b>592,804,000</b>	<b>\$ 1,578,521</b>	<b>100%</b>	<b>100.0%</b>
								<b>TOTAL FY 2004 Rate Billings: <u>\$ 2,485,733</u></b>		

FY 2003										
Winter/Spring - July 2002						Summer/Fall - January 2003				
	Accounts	Use	Billed	% of Accounts	% of Use	Accounts	Use	Billed	% of Accounts	% of Use
<b>Block 1</b>	4,962	177,922,000	\$ 402,710	43.1%	53.1%	2,464	210,157,000	\$ 404,915	21.3%	28.2%
<b>Block 2</b>	6,500	146,552,000	425,001	56.5%	43.8%	8,618	464,993,000	1,348,480	74.5%	62.5%
<b>Block 3</b>	44	10,363,000	40,934	0.4%	3.1%	487	68,966,000	272,416	4.2%	9.3%
	<b>11,506</b>	<b>334,837,000</b>	<b>\$ 868,645</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,569</b>	<b>744,116,000</b>	<b>\$ 2,025,810</b>	<b>100%</b>	<b>100.0%</b>
								<b>TOTAL FY 2003 Rate Billings: <u>\$ 2,894,455</u></b>		

## Water Rate Survey

District	Cotuit	Mashpee	Barnstable	C-O-MM	Sandwich
<b>Water Rate Structure</b>	\$36 annual min. charge for 20,000 gal 20,001-40,000 / \$1.80 ea 1,000 gal 40,001-80,000 /\$2.45 ea 1,000 gal 80,001-120,000 / \$2.70 ea 1,000 gal 120,000+ / \$3.00 ea 1,000 gal	0-15,000 gallons/\$46 (minimum bill) 15,000-30,000 gallons/\$2.50 per 1,000 30,001 gallons plus \$3.40 per 1,000	0-45,000 gal/ \$2 per 1,000 gal 46,000-200,000 gal/\$2.75 per 1,000 gal 200,000+ gal/ \$3.75 per 1,000 gal Min.bill of \$30/quarter	0-20,000 gal/\$35 minimum 20,000-200,000 gal/\$2.90 per 1,000 200,001+ gal/\$3.95 per 1,000 Minimum bill of \$15 per quarter	0-20,000 gal/\$20 minimum 20,001-50,000 gal/\$2.00 per 1,000 50,001 gal plus -\$3.00 per 1,000
<b>Billing Basis</b>	Annual bill for minimum; second bill for excess	Semi-annual bills for usage	Quarterly bills for minimum; semi-annual bills for usage	Quarterly bills for minimum; semi-annual bills for usage	Semi-annual bills for usage
<b>Fund</b>	General	General	General	Special Revenue	General
<b>Full Cost Recovery</b>	No	No	Yes, excluding benefits	Yes	No
<b>Average Annual Bill - 90,000 gallons</b>	\$197	\$269	\$334	\$215	\$140