

Section IV

Water Fund

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Mission Statement

The mission of Water Division is to enhance Concord's quality of life, and through sound management, innovation, teamwork and vision, provide dependable, high quality, responsive water utility services, consistent with values and at reasonable costs to Concord's citizens, businesses, institutions and visitors.

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Highlights

- The proposed FY11 base level (Step 1) water rate of \$3.96 per unit represents a 3.4% increase over the FY10 rate of \$3.83 per unit. *See pages IV-3 and IV-14.
- The proposed FY11 capital investment plan is \$2,660,000, with \$1.9 million funded from debt (Article 23 of the 2010 Annual Town Meeting).
- Article 23 "Nagog Pond Water Supply System Improvements" seeks authorization to appropriate the sum of \$1,900,000 for the construction of water supply and water treatment facilities and improvements associated with Nagog Pond reservoir, Nagog Dam and Route 2A pump station including engineering, permitting and other related services and costs.
- The proposed FY11 Operating Income is \$429,131 and Net Income is \$282,697.

Operating Summary

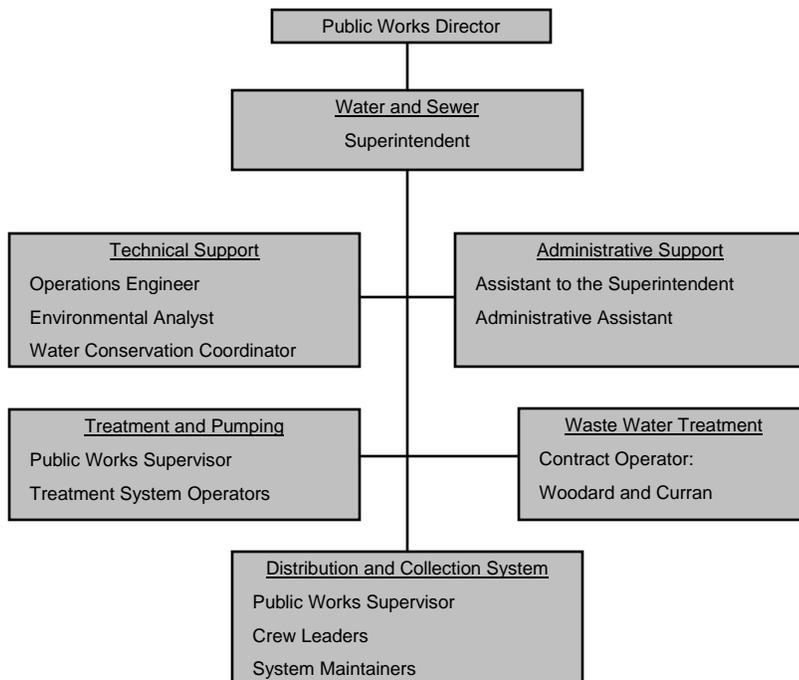
	FY08	FY09	FY10 Revised	FY11 Estimate
Operating Income	\$ 1,213,485	\$ 592,272	\$ 325,905	\$ 429,131
Net Income	\$ 1,143,427	\$ 466,977	\$ 157,431	\$ 282,697
Fund Balance	\$ 4,048,701	\$ 3,829,818	\$ 3,165,849	\$ 2,890,518

Description

Concord received legislative authority to establish a public water system in 1872. Today the system consists of ground-water and surface water sources, a total of seven pumping stations, two advanced treatment facilities, and a high pressure water main network consisting of over 130 miles of pipe. Two covered storage reservoirs, one located at Annursnac Hill and the other located at Pine Hill in Lincoln provide total reserve capacity of 7.5 million gallons.

The 1974 Annual Town Meeting established the Water Fund. Expenses for the water system are covered entirely by user fees. The Water and Sewer Division of Concord Public Works is responsible for managing the day-to-day operations of the water infrastructure. As of 2009, the total value of infrastructure assets was approximately \$19 million.

There are presently 5,437 customers receiving potable water service and fire protection from the Town water system. This represents approximately 95% of Concord residents and businesses, along with a small number of Acton properties located on Route 2A.



The Concord Water System is designed to meet a variety of customer needs and interests, which include the provision of safe and reliable potable water, high volume flows for fire protection and integrated water resource protection. Activities involving drinking water quality and water withdrawal issues are strictly regulated by the Massachusetts Department of Environmental Protection (MA DEP) and the federal Environmental Protection Agency (EPA).



Long Term Financial Stability

Along with its core mission to operate and maintain the Town’s water system in a reliable and efficient manner, the Water Enterprise must also be financially self-supporting. This means that the Water Division is expected to cover all costs associated with operations, capital maintenance and repairs by generating sufficient revenue through user fees and special service fees. The Water Division maintains a detailed 10-year financial proforma to facilitate long range planning for all revenues and anticipated investments.

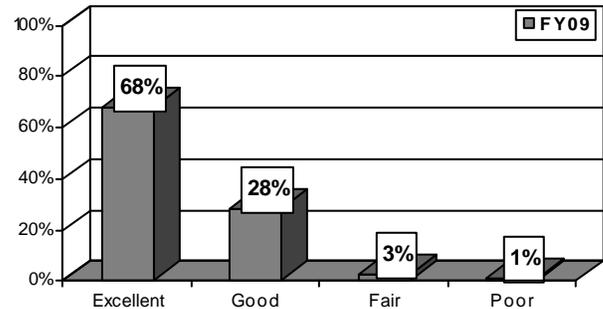
Since the Water Enterprise fund was formally established in 1974, there have been no property tax contributions requested to subsidize annual operations or maintenance of pre-existing infrastructure. Taxpayer contributions would only be sought for major system expansion projects or facility upgrades designed to meet broader community interests. No such projects are presently contemplated.

Citizen Survey

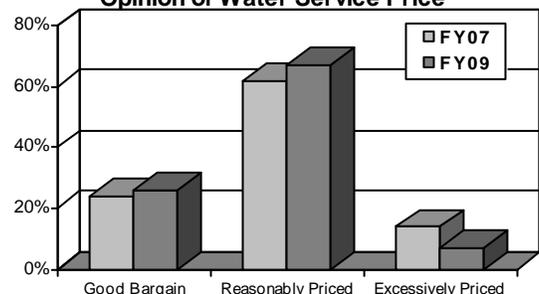
In September 2006 and November 2008, the Town conducted a telephone survey of 300 randomly selected Concord residents. For the Water Division, two questions were asked. To the right are the results of the question, “How would you rate the overall quality of water service?” Of those who said they use the service, the vast majority (68%) thought that the quality is Excellent and another (28%) thought it is Good.

Below are the results of the question, “What is your opinion of the price of water service?” In FY09, of those who said they use the service, 26% thought that the price is a Good Bargain and 67% thought that it is Reasonably Priced. From the FY07 and FY09 results, more respondents thought that the water service is Reasonably Priced and fewer respondents thought that it is Excessively Priced.

How would you rate the overall quality of water services provided by the Town?



Opinion of Water Service Price



What is your opinion of the price of Town water Services?				
	FY07	FY08	FY09	FY10
Good Bargain	24%	N/A	26%	N/A
Reasonably Priced	62%	N/A	67%	N/A
Excessively Priced	14%	N/A	7%	N/A

*Data Source: September, 2006 and November, 2008 telephone surveys.

Water Rates

The total revenue projected to be raised through water user fees in FY11 is: **\$3,763,000** which represents 98% of total Water Fund revenues.

User fees are assessed according to actual measured (metered) use.

Rates are set each year by the Public Works Commission following a public hearing with the following goals:

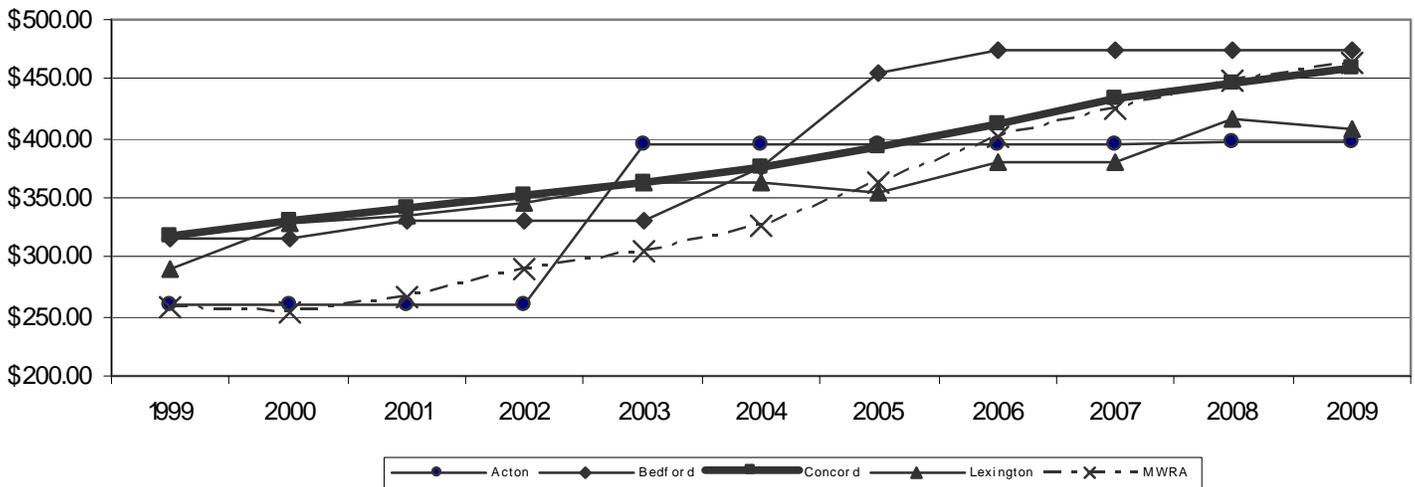
1. To ensure that the Division has the resources to operate, maintain, and improve the system;
2. To encourage users to conserve water; and
3. To minimize rate changes so that water use can be a relatively predictable expense for customers.

Water Rate Highlights

The FY11 proposed Residential Service (step 1) water rate is \$3.96 per unit (1 unit = 748 gallons)

- The FY11 rate of \$3.96 represents a 3.4% increase over the FY10 rate of \$3.83.
- In FY11, the average residential customer is expected to pay a total of \$356 in water use over the course of the year. (The average residential customer is assumed to use 15 units bimonthly at the step 1 residential service cost of \$3.96 per unit.)
- Customers who consume 25 or more units of water bimonthly will pay a higher rate (a Conservation Step).
- Property owners that meet certain age and income criteria may qualify for a 50% discount on the step 1 residential rates.

Average Annual Residential Water Bill



Rate comparisons are provided for general information only; differences exist in the management and financial structure of every system. Concord prides itself on operating as a full cost accounting enterprise where rates are designed to cover O&M, depreciation and long-term investment needs. Concord is one of only 3% of systems within MA which have adopted a seasonal ascending-block conservation rate structure.

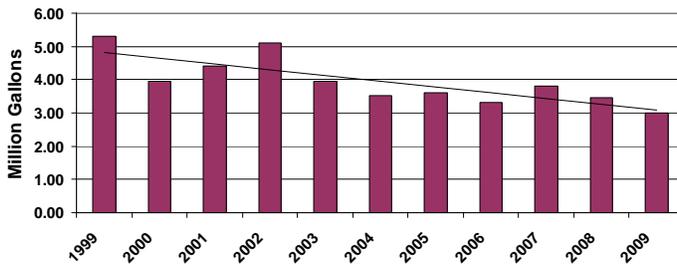
Program Highlights

The programs and initiatives highlighted below represent the most current efforts undertaken by the Division to address both customer needs and regulatory requirements.

Capacity: Up until mid-1980's the quantity of water available to each community within Massachusetts was primarily dictated by local interests, needs, investments and available resources. Over the past several decades, the Commonwealth of Massachusetts has imposed regulatory controls pursuant to the Water Management Act, CMR Chapter 21G. Most recently, water rights have been increasingly challenged through conditional permits and registrations which include prescribed requirements intended to manage water use demand. Proposed controls including "mandatory" water use restrictions have begun to be met with resistance from some individual communities. In January of 2008, Concord, along with over 40 other water systems, appealed terms and conditions included in a twenty-year "Water Management Act Registration Statement". Legal and regulatory findings are pending. Concord continues to believe that it is its responsibility to adopt and promote long-term sustainable and environmentally responsible water resource management practices while challenging those state policies which have the potential to negatively impact the Town's water system. The Water Division will continue to focus its efforts on developing effective customer outreach programs to increase voluntary participation in wise water-use practices as well as to evaluate the impacts of state policies and take appropriate action to ensure the on-going financial health of Concord's water system.

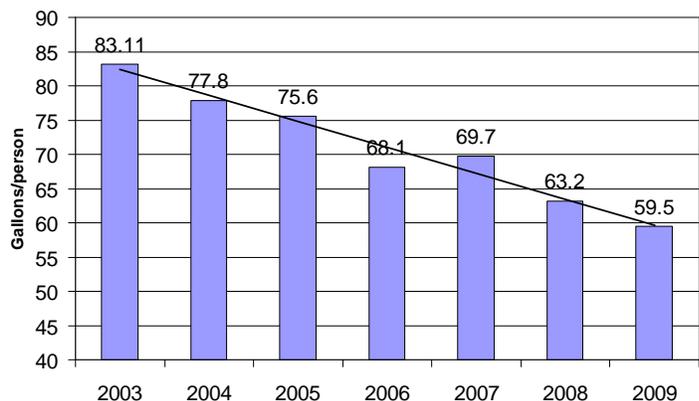
Within the past ten years, the Water Division has invested considerable effort to identify and eliminate unaccounted-for water (losses through leaking pipes or inaccurate metering) and reduce wasteful consumption. The combination of infrastructure improvements coupled with increased customer awareness via conservation activities has resulted in true savings as measured in both daily average demand as well as peak daily demands. While events beyond our control such as regional precipitation trends certainly impact these measures, the savings are clearly exhibited in the graph below.

Max. Day Consumption (1999-2009)



Water Conservation Program: Ongoing promotion of water conservation and sustainable development approaches continue to play an important role in Concord's water supply demand management strategies. As shown in the graph to the right, residential water usage has decreased for the last several years as a result of the conservation program.

Residential per Capita per Day Consumption



Program Highlights (continued)

Water Testing: Concord's water system continues to meet or surpass state and federal standards for regulated drinking water quality. In November of 2006, EPA published the Ground Water Rule in the Federal Register which provides for increased protection against microbial pathogens in public water systems such as Concord that use ground water sources. Routine water quality testing activities performed within the Concord system continue to demonstrate that our groundwater supplies are adequately protected against such threats. This past year, a "table top" vulnerability assessment was performed to evaluate theoretical treatment needs in the event any source of supply was compromised. Three of six sites would require significant treatment modifications in the event source water protection was inadequate.

Station Equipment: Ongoing maintenance and inspection of seven water production facilities and related treatment systems continues on a daily basis. Notable improvements have been made in existing chemical control strategies employed within each of these stations, involving more frequent testing of process alarms and controls along with the installation of electrical/chemical feed system interlocks. Much of this work was done in concert with recently revised guidance outlined through MA DEP. Hardware and software upgrades were also made to improve upon our supervisory, control, and data acquisition (SCADA) system, specifically with respect to alarm-handling capabilities and operational flexibility and redundancy of critical system components.

Nagog Treatment Plant: Nagog Pond continues to operate under a federal filtration waiver awarded due to a highly successful watershed protection program. Regulations recently promulgated by the EPA, effective in 2013, will require enhanced disinfection including cryptosporidium inactivation in accordance with the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWT). It has been determined that a new disinfection system will be installed at the Route 2A water pumping facility as part of larger rehabilitation project planned within this facility. This station, installed in the 1950's, will continue to house high lift pumps and chemical feed systems required to condition Nagog Pond water prior to entering the public water supply system. Stantec Consultant Services Inc. (Westford, MA) has been hired to prepare detailed contract specifications and plans for this facility rehabilitation project and to provide construction administration services for this construction.

Nagog Pond Dam: At the request of the Department of Conservation and Recreation's Office of Dam Safety, GZA Geoenvironmental Inc. (Norwood, MA) was hired to update and finalize a Phase I Nagog Dam Assessment Report for this structure. This work was required to characterize the condition of this 100-year-old dam and associated control structures and to determine if additional inspection, maintenance or rehabilitation is needed. Their findings demonstrated a clear need for a more detailed and invasive Phase II assessment to better define rehabilitation or replacement needs of the concrete structure, spillway, and gate/control valves. Pare Corp. (Foxborough, MA) was hired to complete this investigatory work with understanding that they may be asked to provide final design for rehabilitation or replacement activities.

Mains (New/Replacement): N. Granese & Sons (Marblehead, MA) performed water main replacement activities within the Walnut and Chestnut Street neighborhood. Water mains were replaced with 8-inch cement-lined ductile iron pipe (CLDI), in place of 8-inch transite as well as 4-inch and 6-inch cast iron pipe. To avoid unnecessary handling costs, the older transite main was abandoned in place and the newer main was installed along the same general route.

Meter Replacement Program: Effort and investment continued on the multi-year meter system upgrade, performed in conjunction with CMLP, which involves the installation of a radio-based technology which will allow for more efficient and customer-friendly meter-reading capabilities. Now that this phase of the conversion process has been completed, advanced meter reading and billing system opportunities can be explored.

Keyes Road Operations Facility: An antiquated electric heating system within the Water/Sewer Administration offices at the 135 Keyes Road facility was replaced with a more efficient natural gas-fueled system, funded through the Sawyer Trust Comprehensive Sustainable Energy Committee.

Program Implementation

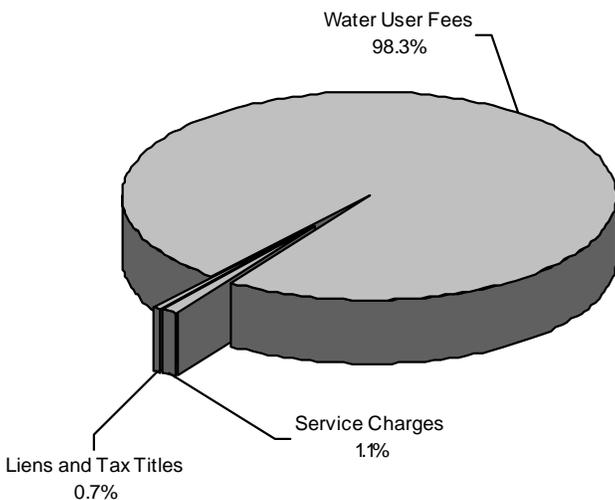
The proposed fiscal year 2011 budget provides for an operating income of \$429,131 and a net income of \$282,697.

Depreciation expense reflects the cost imposed by the annual use, or wear-and-tear, of the Water Division's approximately \$19 million worth of infrastructure (as of the end of FY09). The budgeted depreciation expense, totaling \$751,972, therefore reflects a depreciation of roughly 4% of these capital assets in FY11.

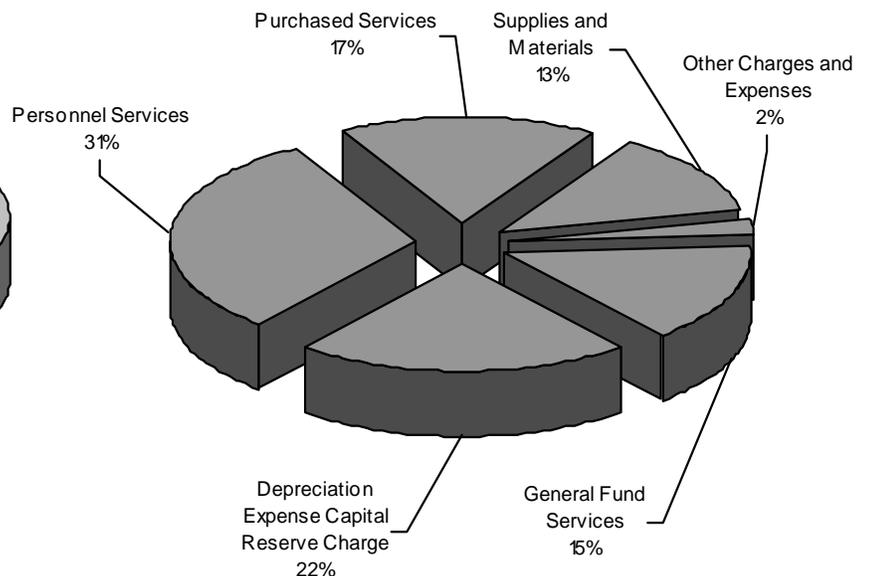
Personnel Services are budgeted to total \$1,048,945 in FY11, a 4.9% increase from the revised FY10 total of \$1,000,100. No additional personnel have been requested.

The most significant change in operating expense noted within the past several years relates to the cost associated with essential water treatment chemicals. Since Fiscal Year 2007, the Water Division has participated in the Northeast Merrimack Valley Consortium for procurement of water treatment chemicals and the Town has benefited from bulk procurement of required water treatment chemicals. Bids have been awarded for over forty different chemicals, including five which are currently used by Concord. Overall, bids were up by a median of 31% in FY09, due to increased costs for manufacturing and transportation. The price of potassium hydroxide went up over 300%. The impact on the O&M budget was a net increase of approximately \$190,000 over a two-year period. The FY11 budget provides for a slight (<1%) decrease in chemical use from the revised FY10 budget.

Operating Revenues
Totaling \$3,830,000



Operating Expenditures
Totaling \$3,400,869



OPERATING REVENUES (\$)

	FY08 Actual	FY09 Actual	Rev. FY10 Budget	FY11 Estimate
Water User Fees	\$ 4,042,522	\$ 3,467,220	\$ 3,596,000	\$ 3,763,000
Service Charges	50,979	28,783	40,000	41,000
Liens and Tax Titles	21,169	25,917	26,000	26,000
Other	6,276	9,271	-	-
Audit Adjustment	557	-	-	-
Operating Revenues Total	\$ 4,121,503	\$ 3,531,191	\$ 3,662,000	\$ 3,830,000

OPERATING EXPENSES (\$)

	FY08 Actual	FY09 Actual	FY10 Budget	FY11 Budget
<u>Personnel Services</u>				
Personnel Expenses	\$ 919,029	\$ 971,095	\$ 1,000,100	\$ 1,048,945
Audit Adjustment	7,555	19,877	-	-
Subtotal	\$ 926,584	\$ 990,972	\$ 1,000,100	\$ 1,048,945
<u>Non-Personnel Services</u>				
Purchased Services	421,785	401,024	563,629	576,838
Supplies & Materials	232,475	357,005	434,292	427,057
Other Charges & Expenses	72,293	92,084	77,064	80,364
Audit Adjustment	72,638	(141,836)		
Subtotal	\$ 799,191	\$ 708,277	\$ 1,074,985	\$ 1,084,259
<u>Other</u>				
General Fund Services	\$479,991	\$505,496	\$518,410	\$515,693
Depreciation Expense	702,252	702,636	742,600	751,972
Audit Adjustment	-	31,538		
Subtotal	\$ 1,182,243	\$ 1,239,670	\$ 1,261,010	\$ 1,267,665
Total Operating Expense	\$ 2,908,018	\$ 2,938,919	\$ 3,336,095	\$ 3,400,869

AUTHORIZED POSITIONS (\$)

Regular Staff	FY10 Revised Budget		FY11 Initial Budget	
	Positions/Hours	\$ Amount	Positions/Hours	\$ Amount
Water and Sewer Superintendent	0.80 FTEs	\$ 77,109	0.80 FTEs	\$ 77,110
Public Works Engineer	0.20	14,657	0.20	14,101
Assistant to Superintendent	0.80	59,473	0.80	59,473
Env. & Reg. Coord.	0.80	47,501	0.80	47,200
Administrative Assistant	0.80	41,476	0.80	41,576
Public Works Supervisor	1.60	110,530	1.60	110,530
Crew Leader	1.60	92,674	1.60	92,674
Treatment System Operator	2.40	121,033	2.40	121,622
System Maintainer	4.00	173,027	4.00	171,497
Water Conservation Specialist	1.00	59,192	0.65	37,233
Standby Pay (5111)	0.43	26,523	0.43	27,047
Charges to Snow Account	-0.08	(3,870)	-0.08	(4,046)
Charges to Capital Projects	N/A	(19,277)	N/A	(19,277)
Vacancy Savings (Sys. Maintainer)	N/A	(15,451)	0 hrs.	-
Salary Adjustments (2%)	N/A	-	N/A	16,000
Subtotal	14.35 FTEs	\$ 784,597	14.00 FTEs	\$ 792,740
5120				
Environmental Technology Intern	312 hrs.	\$ 4,680	800 hrs.	\$ 8,000
GIS Intern	480 hrs.	7,200	884 hrs.	10,920
Subtotal	0.15 FTEs	\$ 11,880	0.38 FTEs	\$ 18,920
Employee Benefits				
Health Insurance	N/A	\$ 42,700	N/A	\$ 55,700
Life Insurance	N/A	300	N/A	300
Dental Insurance	N/A	7,000	N/A	9,000
Retirement Contribution	N/A	23,298	N/A	25,000
OPEB Contribution	N/A	63,911	N/A	68,109
Subtotal	N/A	\$ 137,209	N/A	\$ 158,109
Payroll Taxes				
Medicare Tax	N/A	\$ 8,800	N/A	\$ 8,500
Social Security Contribution	N/A	3,200	N/A	3,000
Subtotal	N/A	\$ 12,000	N/A	\$ 11,500
Other Personnel Costs				
Overtime (5130)	1250 hrs.	\$ 45,350	1500 hrs.	\$ 55,710
Overtime Adjustments (5130)	N/A	-	N/A	1,110
Police Overtime (5131)	250 hrs.	7,400	185 hrs.	7,400
Mobile Phone Allowance	N/A	1,664	N/A	3,456
Subtotal	N/A	\$ 54,414	N/A	\$ 67,676
Total Personnel Costs	14.50 FTEs	\$ 1,000,100	14.38 FTEs	\$ 1,048,945

NET INCOME (\$)

	FY08 Actual	FY09 Actual	Rev. FY10 Budget*	FY11 Estimate
Statement of Net Income:				
Operating Revenues	\$ 4,121,503	\$ 3,531,191	\$ 3,662,000	\$ 3,830,000
Less Operating Expenses	(2,908,018)	(2,938,919)	(3,336,095)	(3,400,869)
Operating Income	\$ 1,213,485	\$ 592,272	\$ 325,905	\$ 429,131
Nonoperating Revenues (Expenses)				
Add Investment Income	\$ 179,422	\$ 90,025	\$ 31,310	\$ 34,135
Less Interest Expense	(249,480)	(215,320)	(199,784)	(178,669)
Other Nonoperating	-	-	-	(1,900)
Nonoperating Income	\$ (70,058)	\$ (125,295)	\$ (168,474)	\$ (146,434)
Net Income	\$ 1,143,427	\$ 466,977	\$ 157,431	\$ 282,697

AVAILABLE RESOURCES (\$)

Resources Available from Current Operations for Replacement & Renewal of Facility:

	FY08 Actual	FY09 Actual	Rev. FY10 Budget*	FY11 Estimate
Capital Purposes				
Add Depreciation Exp. & Cap. Rsv.	\$ 702,252	\$ 702,636	\$ 742,600	\$ 751,972
Add Net Income	1,143,427	466,977	157,431	282,697
Add Bond / Note Proceeds	750,000	-	-	1,900,000
Less Bonds Payable	(1,380,000)	(585,000)	(560,000)	(550,000)
Net Available for Capital	\$ 1,215,679	\$ 584,613	\$ 340,030	\$ 2,384,669

*As of February 2009

CASH POSITION AND FUND BALANCE FORECAST

	FY10		FY11	
	Operating Fund	Depreciation Fund	Operating Fund	Depreciation Fund
Cash at Year Opening				
Cash on July 1st	\$ 3,431,144		\$ -	
Add Receivables	682,708		682,708	
Add Inventory	57,083		57,083	
Less Cash held for Liabilities	(341,117)		(341,117)	
Fund Balance on July 1st	\$ 3,829,818		\$ 3,165,849	
Fund Balance Details (projected)				
Fund Balance on July 1st	\$ 2,943,554	\$ 886,264	\$ 2,520,985	\$ 644,864
Net Income	157,431		282,697	
Bonds Payable	(560,000)		(550,000)	
Capital Outlay (expended from debt)	(20,000)			
Capital Outlay (exclusive of debt)		(984,000)		(760,000)
Add Depreciation Exp./Capital Rsv.		742,600		751,972
Balance Projected at June 30th	2,520,985	644,864	2,253,682	636,836
Fund Balance on June 30th	\$ 3,165,849		\$ 2,890,518	
Cash at Year End (projected)				
Fund Balance on June 30th	\$ 3,165,849		\$ 2,890,518	
Less Receivables	(682,708)		(682,708)	
Less Inventory	(57,083)		(57,083)	
Add Cash Held for Liabilities	341,117		341,117	
Projected Cash at June 30th	\$ 2,767,175		\$ 2,491,844	

DEBT SERVICE (\$)

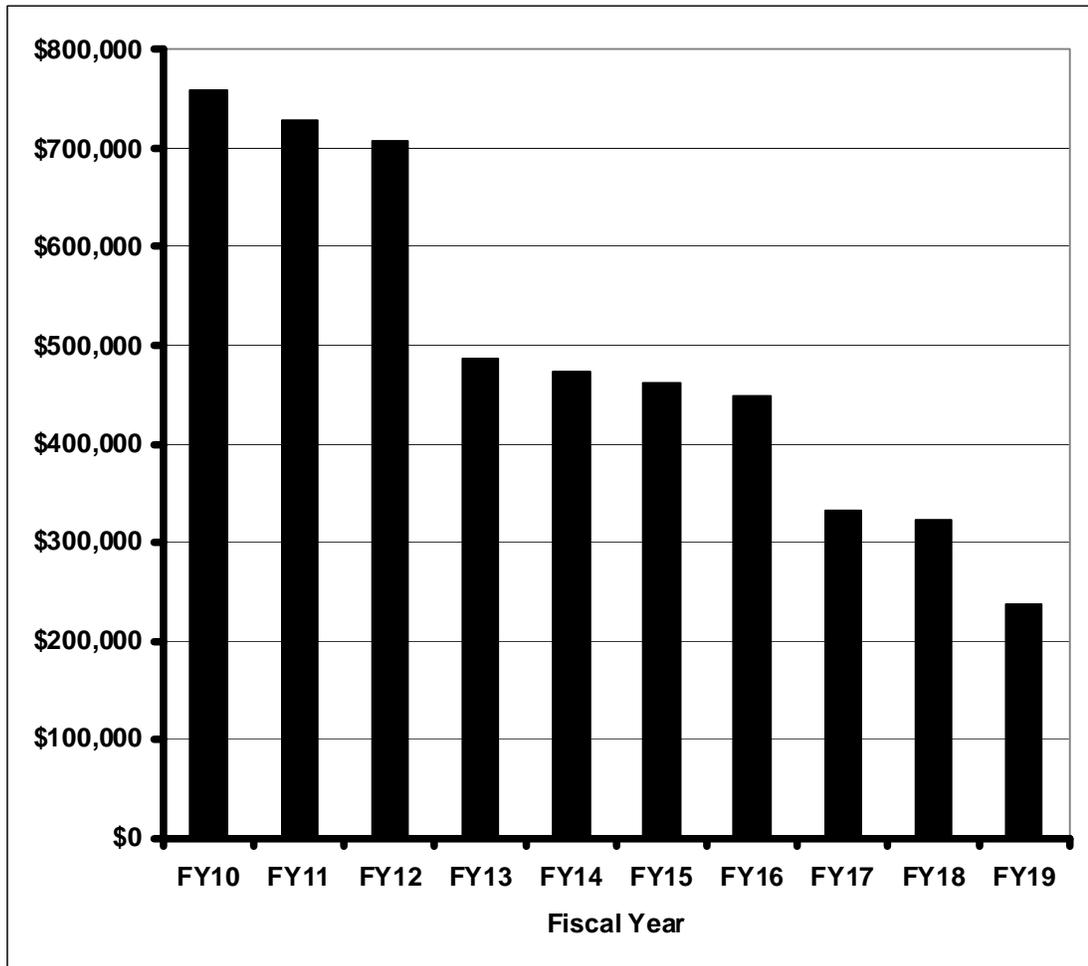
	FY08 Actual	FY09 Actual	FY10 Revised	FY11 Estimate
Long Term Debt Repayment Schedule:				
Principal	\$630,000	\$585,000	\$560,000	\$550,000
Interest	226,033	222,425	199,784	178,669
Debt Issuance Expenses	8,000			
Totals	\$864,033	\$807,425	\$759,784	\$728,669

PAYMENTS TO THE GENERAL FUND (\$)

	FY08 Actual	FY09 Actual	FY10 Revised	FY11 Estimate
Management & Engineering Services:				
Highway Maintenance	\$14,569	\$15,312	\$15,677	\$15,677
133/135 Keyes Road Facilities	54,744	52,820	52,371	49,196
Public Works Engineering	60,537	64,383	64,717	61,622
Public Works Administration	70,445	69,675	72,197	72,193
Subtotals	\$200,295	\$202,190	\$204,962	\$198,688
Financial & Administrative Services:				
Town Manager	\$47,656	\$52,167	\$52,627	\$51,528
Town Accountant:				
General Services	42,404	41,996	43,770	43,349
Audit Services	5,520	5,640	6,000	6,000
Treasurer-Collector	41,889	43,500	44,845	46,021
Finance Administration	54,865	67,639	66,234	61,265
Human Resources	10,234	10,770	13,500	13,645
Information Systems	0	0	5,129	5,146
Town House Facilities	6,119	5,921	5,973	6,932
Subtotals	\$208,687	\$227,633	\$238,078	\$233,886
Natural Resource Protection:				
Planning	\$31,406	\$32,809	\$32,925	\$32,922
Natural Resource Protection	18,574	20,928	20,675	21,065
Health	19,948	21,051	21,770	21,511
Subtotals	\$69,928	\$74,788	\$75,370	\$75,498
Salary Reserve	\$0	\$0	\$0	\$7,621
Audit Adjustment	\$1,081	\$885		
Totals	\$479,991	\$505,496	\$518,410	\$515,693

Water Debt Service (to FY19)

Fiscal Year	Principal	Interest	Totals
FY10	560,000	199,784	\$759,784
FY11	550,000	178,669	\$728,669
FY12	550,000	157,869	\$707,869
FY13	350,000	136,869	\$486,869
FY14	350,000	124,119	\$474,119
FY15	350,000	111,269	\$461,269
FY16	350,000	98,206	\$448,206
FY17	250,000	81,831	\$331,831
FY18	250,000	72,113	\$322,113
FY19	175,000	62,738	\$237,738
Totals	<u>\$3,735,000</u>	<u>\$1,223,467</u>	<u>\$4,958,467</u>



DISTRIBUTION SYSTEM

Mains (New/Replacement): \$320,000 - Annual capital outlay for improvements and extensions to the distribution system. This ongoing investment is designed to ensure that aging deteriorating main is replaced in a methodical and prudent manner. The Water Division will continue to coordinate system upgrades with other Town Departments to insure division needs are considered in light of other public work improvement efforts (such as Roads Program and CMLP initiatives). Work is tentatively planned along Whittemore Street.

Meter Replacement Program: \$68,000 - Water fund portion (80%) of costs associated with multi-year system-wide meter replacement efforts. A significant portion of this budget allowance is for meter management hardware and software upgrades associated with Harris Billing System shared with CMLP.

Hydrants: \$31,000 - Concord Water is involved in annual hydrant inspection and replacement activities to insure all hydrants operate properly. This budget allowance includes the costs for approximately 16 new hydrants. There are approximately 1,262 hydrants presently in our system.

Building Services: \$12,000 - Costs associated with the replacement/installation (street to property line) of approximately 10-15 new water services within our distribution system. Sites have been prioritized in conjunction with the Roads Program.

STRUCTURES

Station Structures: \$55,000 - Annual capital outlay for improvements and replacement of water station structures. In addition, efforts will be made to restore the withdrawal capacity of several existing well sites. Inefficiencies attributed to aging well structures have resulted in diminishment of withdrawal capacity.

Pumping Station Equipment: \$21,000 - Annual capital outlay for improvements and replacement of station equipment used to control, monitor, pump, store, and treat water including motors, pumps, motor control panels, and chemical feed systems. One notable project includes the addition of water quality analyzers to comply with new regulatory guidance measures developed to strengthen chemical control strategies employed in all public water systems.

Reservoir Improvements: \$100,000 - The Annursnac Hill Reservoir, a 2.5 million gallon drinking water storage structure, requires rehabilitation of the existing concrete floor. The proposed scope of work includes the installation of a synthetic liner (to extend the useful life of the concrete floor) and replacement/upgrade of the existing mixing system (to enhance water quality). The proposed budget plan is inclusive of cleaning and inspection of both Annursnac Hill and Pine Hill Reservoir and engineering support for any improvement needs noted.

Nagog Treatment Plant: \$1,900,000 – Work performed by Black & Veatch (FY 2009) and GZA Geoenvironmental Inc. (FY2010) have resulted in a series of recommendations which will ensure continued operation of the Nagog Pond water supply in accordance with federal and state mandates. These recommendations include a complete replacement of all electrical, mechanical and chemical feed systems, the addition of a new ultra-violet disinfection system, and modest building improvements within the 50-year-old Route 2A pump station as well as the rehabilitation of the 100-year-old Nagog Dam structure with an evaluation of associated intake conveyance structures.

GENERAL PLANT

Keys Road Facility \$29,000 - Water Fund portion (80%) of capital outlay for improvements to Water/Sewer Administrative Office and Garage facilities, including completion of rehabilitation project involving electric room..

Vehicles \$108,000 - Water Fund portion (80%) of fleet replacement costs. Water/Sewer Fleet consists of 17 vehicles and miscellaneous service equipment such as compressor, vacuum, etc. Budget allowance includes the addition of a new portable emergency generator required as back-up supply for essential water and sewer pumping facilities.

SUPPLY/CAPACITY

Source Protection \$11,000 – Funds for ongoing implementation of water resource protection program.

Capital Spending Plan

<u>Capital Activities</u>	FY08 Actual	FY09 Actual	Rev FY10 Budget	FY11 Estimate
<u>Distribution System</u>				
Mains (0111)	178,572	461,958	300,000	320,000
Meters (0112)	191,913	30,809	24,000	68,000
Hydrants (0114)	25,300	9,749	30,000	31,000
Services (0113)	(444)	366	12,000	12,000
Bridge Main (0116)	-	54,316	8,000	-
Subtotal	395,342	557,198	374,000	431,000
<u>Structures</u>				
Station Structures (0121)	2,863	1,616	220,000	55,000
Pumping Station Equipment (0122)	8,924	7,336	20,000	21,000
Reservoir Improvements	-	-	-	100,000
Nagog Filtration (0136)	67,589	73,241	300,000	1,900,000
Art 52 Water Supply (0456)*	886,115	71,321	20,000	-
Treatment Optimization (0134)	-	9,423	-	-
Subtotal	965,492	162,938	560,000	2,076,000
<u>General Plant</u>				
135 Keyes Road (0135)	-	1,597	27,000	29,000
Vehicles (0236)	23,833	41,288	28,000	108,000
Depreciable - Personnel (0899)	13,051	13,294	-	-
Depreciable - Equipment (0899)	14,951	3,962	5,000	5,000
Subtotal	51,835	60,141	60,000	142,000
<u>Supply and Capacity</u>				
Source Protection (0124)	12,915	3,149	10,000	11,000
Subtotal	12,915	3,149	10,000	11,000
<u>Audit Adjustments</u>				
Audit Adjustment (Personnel)	57,897	53,546	-	-
Audit Adjustment (Other)	(370,765)	(33,478)	-	-
Subtotal	(312,868)	20,069	-	-
Total	\$ 1,112,715	\$ 803,495	\$ 1,004,000	\$ 2,660,000
Funding the Capital Plan				
From Debt*	\$ 886,115	\$ 144,562	\$ 20,000	\$ 1,900,000
From Water Fund Resources	\$ 226,600	\$ 658,933	\$ 984,000	\$ 760,000
Total	\$ 1,112,715	\$ 803,495	\$ 1,004,000	\$ 2,660,000
*For Deaconess Well, Iron and Manganese Removal Project				

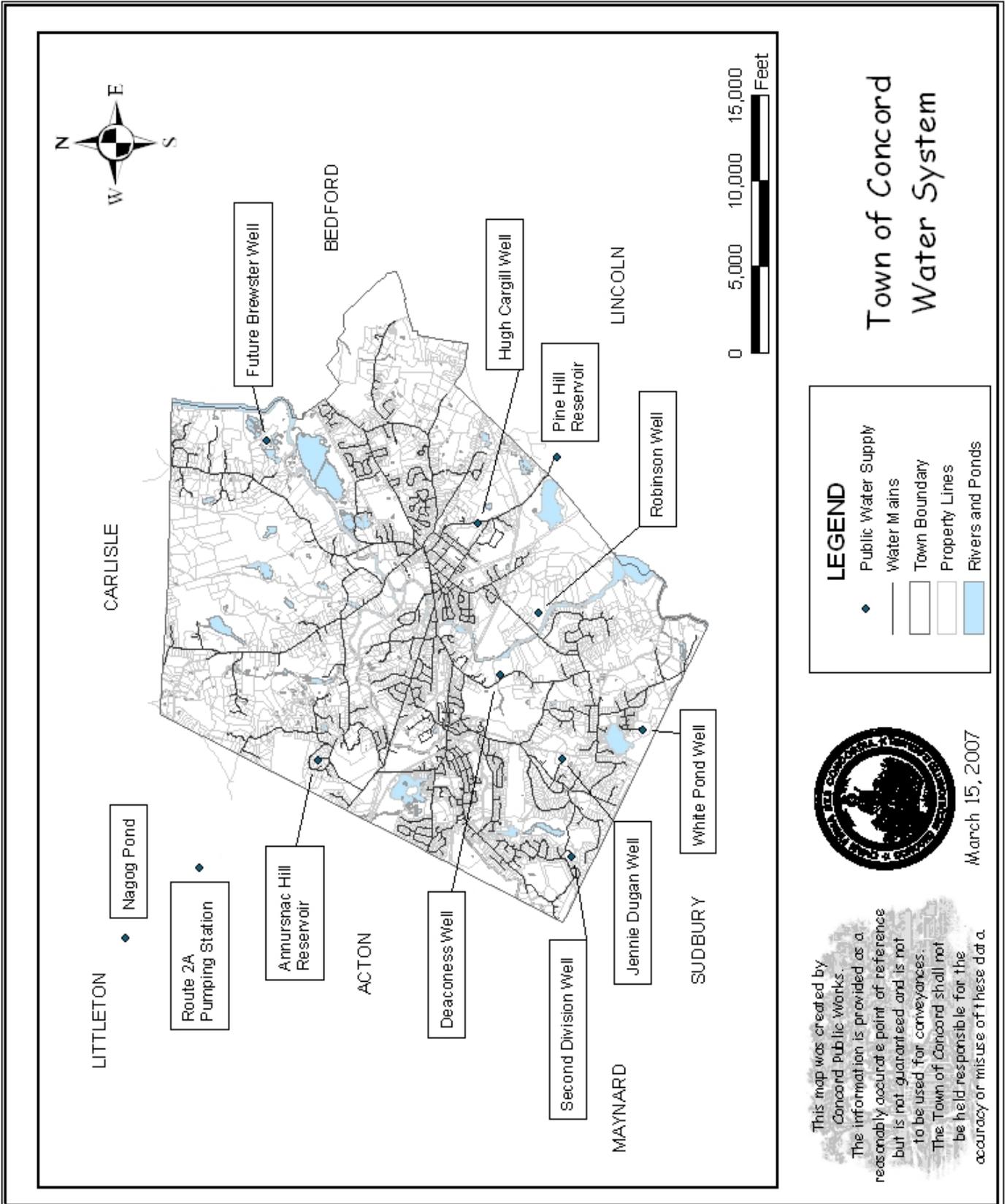
WATER RATES

(Per 100 Cubic Feet)

W-10 Class of Customer	Current FY10	Proposed FY11	%Chg.
1 & 2 Residential Service	(1 unit = 100 cubic feet = 748 gallons)		
1st Step: (all year)	\$ 3.83	\$ 3.96 **	3.4%
Conservation Step*: (25 - 48 units)	\$ 7.51	\$ 7.76	3.3%
Conservation Step*: (over 48 units)	\$ 9.58	\$ 9.90	3.3%
*May 1st through October 31st for consumption over 24 units bimonthly			
3 General Service			
1st Step: (all year)	\$ 3.83	\$ 3.96	3.4%
2nd Step: (all year) (over 50 units bimonthly)	\$ 4.86	\$ 5.03	3.5%
4 Municipal Service			
1st Step: (all year)	\$ 3.77	\$ 3.90	3.4%
Interruptible Outdoor Irrigation use			
5 Second Meters Service			
A. Seasonal Meters/Dedicated Outdoor Irrigation use			
All consumption	\$ 7.51	\$ 7.76	3.3%
B. Non-Irrigation, Non-sewered	\$ 4.86	\$ 5.03	3.5%

**A 50% discount on Step 1 water consumption, up to a maximum of 24 units in a bimonthly billing period, is provided for customers of record who meet certain age and income eligibility criteria.

Sample Impacts	Current Annual	Proposed Annual	Annual Change	Monthly Change	% Chg.
1a Average Residential Customer (15 units bimonthly) <i>Approximately two-thirds of residential customers normally use less than the Conservation step threshold.</i>	\$ 345	\$ 356	\$ 11.70	\$ 0.97	3%
1b Large Summertime Residential Customer (40 units bimonthly during summer; 25 units bimonthly rest of year)	\$ 923	\$ 955	\$ 31.11	\$ 2.59	3%
1c Larger Summertime Residential Customer (60 units bimonthly during summer; 25 units bimonthly rest of year)	\$ 1,449	\$ 1,497	\$ 48.63	\$ 4.05	3%
3a Small Commercial Customer (40 units bimonthly) <i>Approximately two-thirds of commercial/institutional/Gov't customers normally use less than the 2nd step threshold.</i>	\$ 919	\$ 950	\$ 31.20	\$ 2.60	3%
3b Large Commercial Customer (5,000 units bimonthly)	\$ 145,491	\$ 150,579	\$ 5,088	\$ 424.00	3%
5a Small Municipal Customer (47 units bimonthly)	\$ 1,063	\$ 1,100	\$ 37	\$ 3.05	3%
5b Large Municipal Customer (600 units bimonthly)	\$ 13,572	\$ 14,040	\$ 468	\$ 39.00	3%



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March 15, 2007

LEGEND

- ◆ Public Water Supply
- Water Mains
- Town Boundary
- Property Lines
- Rivers and Ponds

Town of Concord Water System