

Mission Statement

The mission of the 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.

Water Fund Contents

Overview	pp. 1-2
Water Rates	p. 3
Program Highlights	pp. 4-5
Revenues and Expenditures	pp. 6-11
Capital Spending	pp. 12-13
Water Proforma	pp. 14
Water Rates and System Map	pp. 15-16

Water Fund Highlights

- The proposed FY14 base level (Step 1) water rate of \$4.41 per unit represents a 4% increase over the FY13 rate of \$4.24 per unit. *See pages IV-3 and IV-14.
- The proposed FY14 capital investment plan is \$1.5 million.
- Nagog Pond Filtration : A budget allowance of \$642,000 is proposed for a master planning and preliminary design of a Nagog Filtration Plant.
- Water Main Replacement: A budget allowance of \$400,000 is proposed for multi-year activities planned for the Southfield/Riverdale Road neighborhood.
- The proposed FY14 Operating Income is \$778,292 and Net Income is \$634,936.

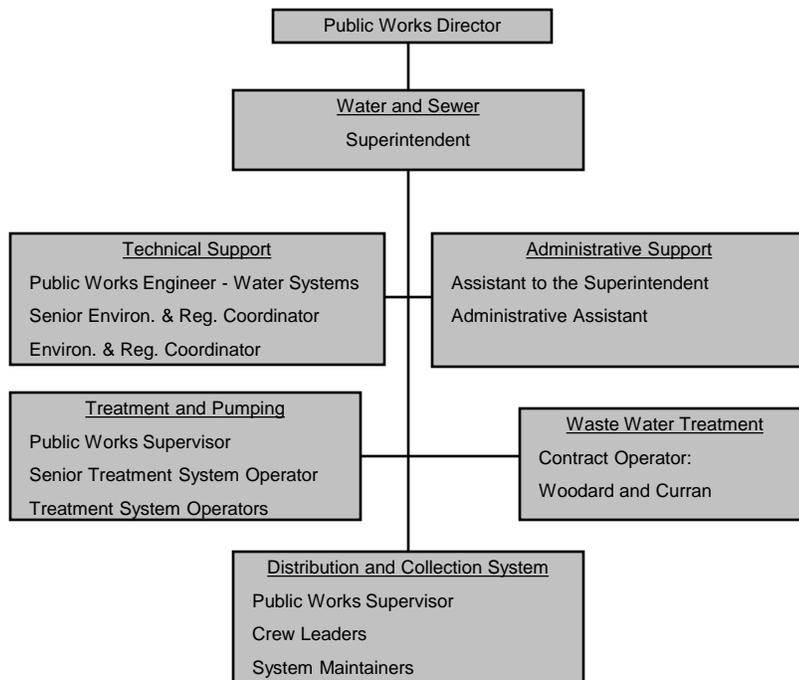
Expenditure Summary				
	FY11 Actual	FY12 Actual	FY13 Budget	FY14 Proposed
Operating Income	\$ 1,199,850	\$ 1,166,195	\$ 909,740	\$ 778,292
Net Income	\$ 1,084,369	\$ 991,054	\$ 746,498	\$ 634,936
Fund Balance	\$ 6,083,940	\$ 5,362,161	\$ 4,962,367	\$ 4,502,854

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 2012, the total value of infrastructure assets was approximately \$19.5 million.

There are presently 5,530 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. Drinking water quality and water withdrawal activities 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.

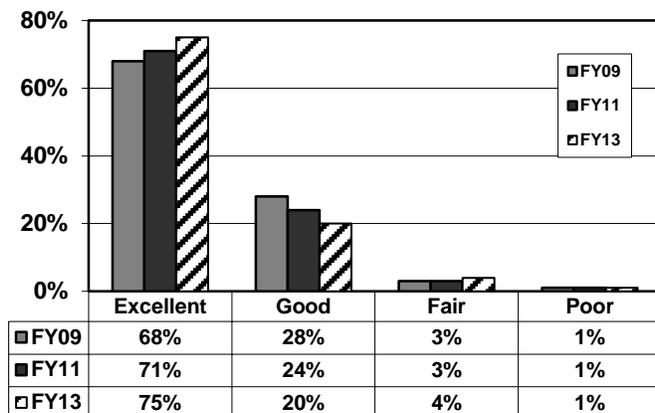
Since the Water Enterprise fund was formally established in 1974, there have been no property tax contributions requested to subsidize annual operations or maintenance of pre-existing infrastructure. Taxpayer contributions would only be sought for major system expansion projects or facility upgrades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

Citizen Survey

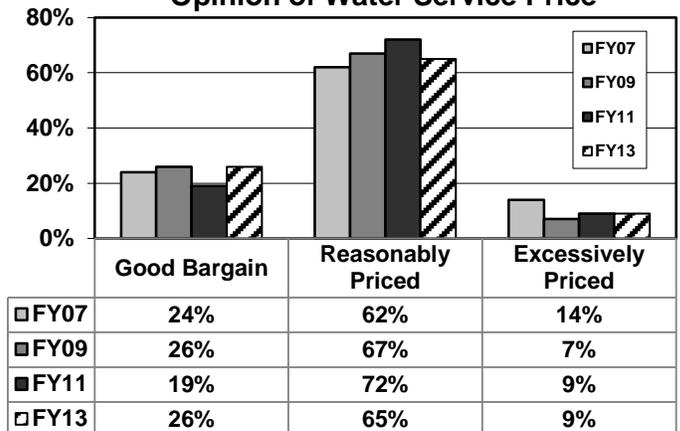
In the fall of 2009, 2011, and 2013 the Town conducted telephone surveys of 300 randomly selected Concord residents. For the Water Division, two questions were asked. Below left are the results of the question, “How would you rate the overall quality of water service?” Of those who said they use the service, the vast majority (75%) thought that the quality is Excellent and another (20%) thought it is Good.

Below right are the results of the question, “What is your opinion of the price of water service?” In FY13, of those who said they use the service, 26% thought that the price is a Good Bargain and 65% thought that it is Reasonably Priced. From FY09 to FY13, we see a consistent opinion that water services are a good bargain.

Rating of Water Service



Opinion of Water Service Price



Water Rates

The total revenue projected to be raised through water user fees in FY14 is: **\$4,532,000** which represents 98% of total Water Fund revenues.

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

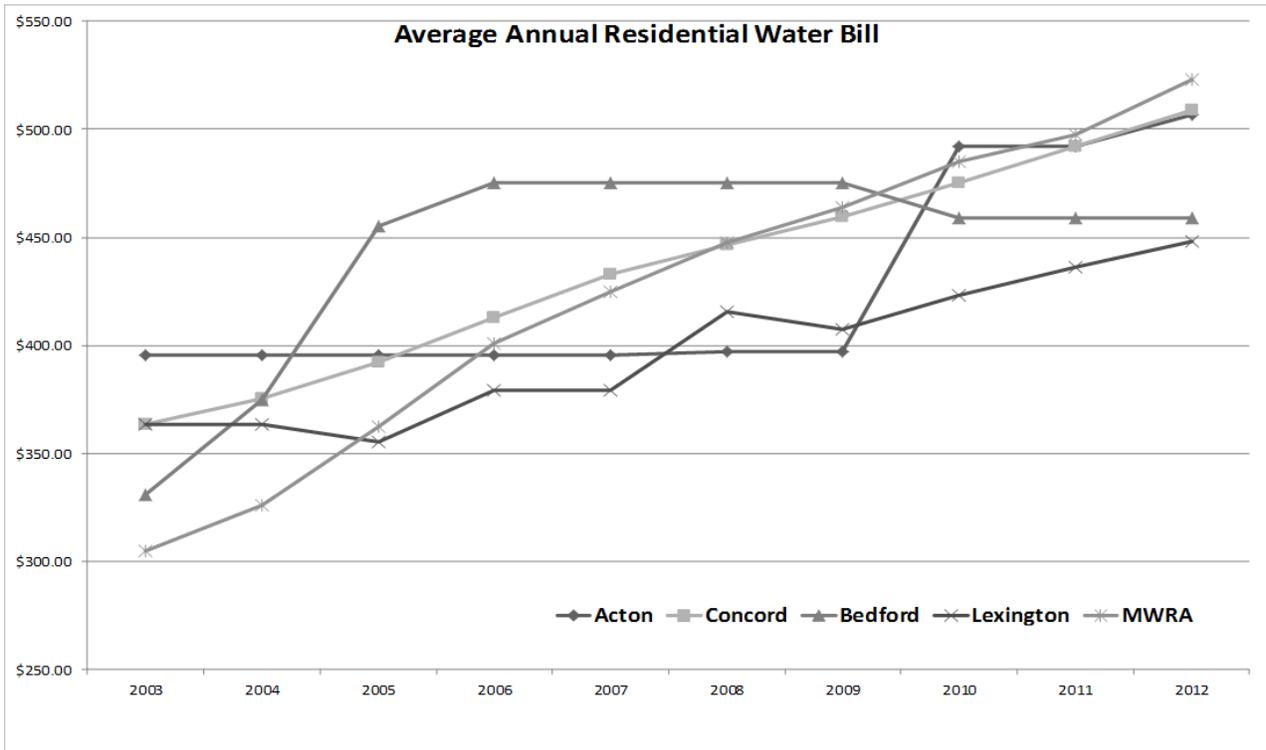
Rates are set each year by the Public Works Commission following a public hearing with the following goals:

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 FY14 proposed Residential Service (step 1) water rate is \$4.41 per unit (1 unit = 748 gallons)

- The FY14 rate of \$4.41 represents a 4% increase over the FY13 rate of \$4.24.
- In FY14, the average residential customer is expected to pay a total of \$397 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 \$4.41 per unit.
- Customers who consume 25 or more units of water bimonthly will pay a higher rate (a Conservation Step).
- Property owners who meet certain age and income criteria may qualify for a 50% discount on the step 1 residential rates.



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 Massachusetts which have adopted a seasonal ascending-block conservation rate structure.

Program Highlights

The programs and initiatives highlighted below are provided to raise awareness of some of the more noteworthy and potentially significant challenges facing the short-term and long-term financial well being of the Water Fund.

State Water Policies:

On November 28, 2012 the Executive Office of Energy and Environmental Affairs (EEA) released a new policy framework outlining how they intended to address long-term drinking water allocation issues in the Commonwealth. While the details have yet to be finalized, it is clear that water utilities and their customers will be held to a high level of accountability, subject to the adoption of new regulations. The result will be significant and restrictive controls placed on all new requests for increased water withdrawals. This framework was developed within a Sustainable Water Management Initiative (SWMI) and will guide the Massachusetts Department of Environmental Protection (MassDEP) as they amend the Water Management Act (WMA) regulations, incorporating streamflow criteria into future permitting decisions. While increased cost for compliance is inevitable, there is growing concern that this program could introduce new uncertainty in long-range planning associated with water supply.

Water Management Act Permit Renewal:

The Water Management Act was established to allow the Department of Environmental Protection “to exercise general care and oversight of the natural resources of the Commonwealth and of its adjacent waters;...” When this Act was first adopted, public water supply systems withdrawal records were audited resulting in a “registered” volume of water which they could withdraw as a matter of “entitlement”, without regulatory conditions or controls. Subsequent to this initial registration, permits are issued to systems which have demonstrated a need to expand their withdrawal based upon system growth.

Concord has both a “registered” volume of 2.1 million gallons per day (MGD) and a permitted allowance of an additional 0.42 MGD. In accordance with Governor Patrick’s permit extension act (Section 173 of Chapter 240); Concord has been granted an automatic extension of its existing WMA permit until August 31, 2015. It is expected that the next permit may actually restrict Concord’s available capacity to the registered volume only.

Nagog Pond Water Treatment Update:

While the Town was able to maintain its federally issued filtration waiver for one more year, the Public Works Commission has determined that, based on increasing system and regulatory pressures, the time has come to evaluate feasible treatment alternatives and identify actual costs for design and construction of a suitable filtration facility. Environmental Partners Group of Weymouth, MA has been hired to perform this analysis with a goal of establishing this value in anticipation of seeking a bond authorization article, which will most likely be presented at the FY15 Annual Town Meeting. Until these numbers can be better quantified, the Water Fund has been carrying a \$6 million estimate within its capital improvement plan. Alternative funding sources, such as sale of property or siting of renewable energy facilities, will also be considered.



Program Highlights (continued)

Water Testing: In accordance with Massachusetts Department of Environmental Protection regulations, all routine and non-routine water quality testing activities continue to demonstrate that the drinking water provided to customers satisfies State and Federal requirements imposed on public water systems. A summary of the water quality test results is available on the Town website. In keeping with Concord's broader "sustainability" initiative, beginning with the spring of 2013 the Annual Water Quality Report will be available on the Town website; printed copies will be provided to interested parties upon request. As always, this report will include information on sources of supply, treatment systems, and water conservation opportunities as well.

Deaconess Satellite Well: Weston & Sampson developed design plans and specifications for the installation and development of a new satellite well and the redevelopment of an existing gravel pack well. All work required to restore the yield of this water supply site to its permitted capacity of 730 gpm was completed with DEP approval. Denis L. Maher Company (Ayer, MA) installed the new 12 by 18-inch diameter gravel-packed production well and redeveloped the original well. Nuwater Inc. (Seekonk, MA), was hired to furnish and install new well pumps, associated variable frequency drives, approximately 120 feet of 6-inch ductile iron water main, approximately 100 feet of flanged ductile iron water main, and associated valving and instrumentation.

Rt 2A Pumping Station: Nagog Pond: Barbato Construction Co. Inc. (Middleboro, MA) completed all construction related activities at the Rt. 2A Pump Station. The work included the installation of new outdoor dry well, emergency generator and UV disinfection equipment as well as the replacement of all chemical storage and feed systems, electric and instrumentation systems, and doors and windows. .

Dam Rehabilitation: Nagog Pond : Pare Associates (Foxborough, MA) completed necessary permitting activities and developed plans and specifications for the scheduled rehabilitation of Nagog Pond Dam. J. D'Amico Inc. (Randolph, MA) completed the actual reconstruction of this 15 foot high, 168 foot long concrete dam located in Acton, Massachusetts. Their work included the installation of cofferdam and control of water measures, removal and replacement of deteriorated concrete along the entire dam structure, the replacement of the low level outlet gate, installation of precast concrete culvert sections for proposed outlet channel alignments, placement of fill along the downstream side of the dam, installation of downstream slope erosion protection stone, and modification of existing water supply and pressurized sampling line configuration.

Mains (New/Replacement): James Fenton & Sons Contracting, Inc. (Acton, MA), as subcontractor to Lazaro Paving, completed water main replacement work along Belknap Street from the intersection of Thoreau Street west approximately 350 feet to an existing hydrant. The scope of work included the installation of a temporary water bypass piping system, the installation of new 8-inch cement-lined ductile iron (CLDI) water main (including the installation of individual service lines from the new main to shut-offs located near each property), and requisite pressure and water quality testing of this new main.

Smart Water Meter Pilot: Now that the Town's "smart grid" communication network is available, the Water and Sewer Division will begin to evaluate and pilot "smart" water meter systems for improved data collection and reporting options. As water becomes an increasingly precious resource, our goal is to provide businesses and residents alike with timely and useful information that will allow for greater awareness and control of site-specific water use practices. This results of the pilot program will also provide data as to where best to direct meter hardware and software investments in the immediate future as well as over the next decade.

SEMS Asset Management Initiative. Operations staff worked with a specialist from Woodard & Curran to develop a new water facility asset management database using an industry standard "SEMS" platform. The system will allow for automated and improved tracking and reporting of routine and non-routine operations and maintenance activities performed at each of our facilities.

Program Implementation

The proposed FY14 budget provides for an operating income of \$778,292 and a net income of \$634,936.

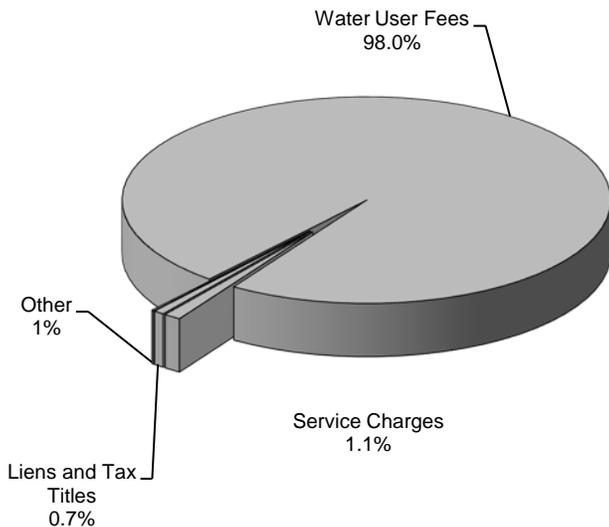
Depreciation expense reflects the cost imposed by the annual use, or wear-and-tear, of the Water Division's approximately \$19.5 million worth of infrastructure (as of the end of FY12). The budgeted depreciation expense, totaling \$933,551, represents a depreciation of roughly 4.8% of these capital assets in FY14.

Personnel Services are budgeted to total \$1,205,261 in FY14, a 5% increase from the revised FY13 total of \$1,147,467. This includes a significant increase in the water fund contribution to retirement funds based on the 2012 actuarial valuation. As part of the reorganization of the Geographic Information System (GIS) function in the Town, the FY14 budget proposes that funds presently allocated for the temporary GIS Intern position be re-allocated to partially fund a permanent GIS/IT Program Analyst position which will support all CPW activities.

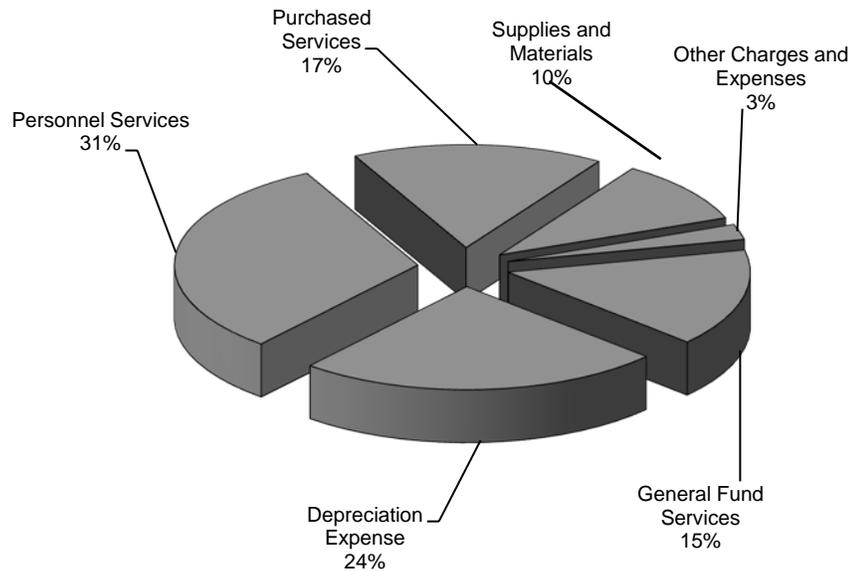
The next largest expense categories are for electricity (\$259,050) and chemicals (\$215,877); these vary widely from year-to-year based on the demand for water. Budgets for these accounts are based on anticipating a relatively strong demand for water. This demand is directly affected by weather trends as well as the water conservation behavior of customers.

The FY14 Budget also includes \$50,000 as the Water Fund's share for the conversion of the billing software to a new version. The cost of the upgrade is shared with the Light Plant which uses the same software for electric billing.

Operating Revenues
Totaling \$4,623,000



Operating Expenditures
Totaling \$3,844,708



OPERATING REVENUES

	FY11 Actual	FY12 Actual	Rev. FY13 Budget	FY14 Budget
Water User Fees	\$ 4,264,308	\$ 4,060,703	\$ 4,412,000	\$ 4,532,000
Service Charges	67,130	215,520	51,000	52,000
Liens and Tax Titles	34,317	35,470	32,000	32,000
Other	8,574	13,621	7,000	7,000
Operating Revenues Total	\$ 4,374,329	\$ 4,325,314	\$ 4,502,000	\$ 4,623,000

OPERATING EXPENSES

	FY11 Actual	FY12 Actual	Rev. FY13 Budget	FY14 Budget
<u>Personnel Services</u>				
Personnel Expenses	\$ 971,882	\$ 1,039,075	\$ 1,147,467	\$ 1,205,261
Audit Adjustment	(4,560)	(8,866)	-	-
Subtotal	\$ 967,322	\$ 1,030,209	\$ 1,147,467	\$ 1,205,261
<u>Non-Personnel Services</u>				
Purchased Services	521,036	423,434	582,865	643,251
Supplies & Materials	334,581	312,295	371,960	382,376
Other Charges & Expenses	46,969	57,303	81,789	92,621
Audit Adjustment	10,814	9,803	-	-
Subtotal	\$ 913,400	\$ 802,836	\$ 1,036,614	\$ 1,118,248
<u>Other</u>				
General Fund Services	511,732	532,935	555,471	587,648
Transfer to Road Repair Fund	16,840	-	-	-
Retirement Assessment	24,966	35,345	-	-
Depreciation Expense	740,219	757,794	852,708	933,551
Subtotal	\$ 1,293,757	\$ 1,326,074	\$ 1,408,179	\$ 1,521,199
Total Operating Expense	\$ 3,174,479	\$ 3,159,119	\$ 3,592,260	\$ 3,844,708

RETIREMENT AND OPEB ASSESSMENT

<i>For Informational Purposes Only</i>				
	FY11 Actual	FY12 Actual	Rev. FY13 Budget	FY14 Budget
<u>Personnel Services</u>				
Retirement Assessment	\$ 24,966	\$ 35,345	\$ 36,158	\$ 63,590
OPEB Assessment	68,097	74,498	81,367	85,582
Total Assessment	\$ 93,063	\$ 109,843	\$ 117,525	\$ 149,172

AUTHORIZED POSITIONS

Regular Staff	FY13 Revised Budget		FY14 Initial Budget	
	\$ Amount	\$ Amount	Positions/Hours	\$ Amount
Water and Sewer Superintendent	\$ 83,747	0.80 FTEs	\$ 84,069	0.80 FTEs
Public Works Engineer	13,602	0.20	13,602	0.20
Assistant to Superintendent	65,876	0.80	65,876	0.80
Sr. Environ. & Regulatory. Coord.	57,465	0.80	57,686	0.80
Environ. & Regulatory. Coord.	37,911	0.80	38,986	0.80
Administrative Assistant	45,214	0.80	46,500	0.80
Public Works Supervisor	120,270	1.60	123,742	1.60
Crew Leader	100,735	1.60	103,712	1.60
Senior Treatment Systems Operator	49,571	0.80	51,004	0.80
Treatment System Operator	88,748	1.60	87,624	1.60
System Maintainer	174,854	4.00	183,731	4.00
Standby Pay (5111)	13,169	0.17	13,510	0.17
Charges to Snow Account	(4,328)	-0.08	(4,328)	-0.08
Charges to Capital Projects	(18,516)	N/A	(19,534)	0
Vacancy Savings	-	0	-	0
Salary Adjustments	-	-	19,599	-
Subtotal	\$ 828,318	13.89 FTEs	\$ 865,779	13.89 FTEs
5120				
Environmental Technology Intern	\$ -	0 hrs.	\$ -	0 hrs.
GIS Project Specialist	14,014	728 hrs.	2,156	112 hrs.
Subtotal	\$ 14,014	0.35 FTEs	\$ 2,156	0.05 FTEs
Employee Benefits				
Health Insurance	\$ 76,582	N/A	\$ 76,582	N/A
Life Insurance	-	N/A	-	N/A
Dental Insurance	-	N/A	-	N/A
Retirement Contribution	36,158	N/A	62,590	N/A
OPEB Contribution	81,367	N/A	85,528	N/A
Subtotal	\$ 194,107	N/A	\$ 224,700	N/A
Payroll Taxes				
Medicare Tax	\$ 9,500	N/A	\$ 10,100	N/A
Social Security Contribution	1,500	N/A	1,900	N/A
Subtotal	\$ 11,000	N/A	\$ 12,000	N/A
Other Personnel Costs				
Overtime (5130)	\$ 82,904	1800 hrs.	\$ 78,679	1900 hrs.
Overtime Adjustments (5130)	-	N/A	1,180	N/A
Salary Adjustment OT (5130)	-	N/A	-	N/A
Police Overtime (5131)	7,400	800 hrs.	7,400	800 hrs.
Mobile Phone Allowance	3,456	N/A	3,456	N/A
IT Salary (5199)	6,268	N/A	9,911	N/A
Subtotal	\$ 100,028	N/A	\$ 100,626	N/A
Total Personnel Costs	\$ 1,147,467	14.24 FTEs	\$ 1,205,261	13.95 FTEs

NET INCOME

	FY11 Actual	FY12 Actual	Rev. FY13 Budget	FY4 Budget
Statement of Net Income:				
Operating Revenues	\$ 4,374,329	\$ 4,325,314	\$ 4,502,000	\$ 4,623,000
Less Operating Expenses	(3,174,479)	(3,159,119)	(3,592,260)	(3,844,708)
Operating Income	\$ 1,199,850	\$ 1,166,195	\$ 909,740	\$ 778,292
Nonoperating Revenues (Expenses)				
Add Investment Income	\$ 18,111	\$ 19,626	\$ 14,902	\$ 22,788
Add Other Revenue	\$ 43,873	\$ -		
Less Interest Expense	(177,465)	(194,767)	(177,744)	(161,144)
Issuance Expense	-	-	(400)	(5,000)
Nonoperating Income	\$ (115,481)	\$ (175,141)	\$ (163,242)	\$ (143,356)
Net Income	\$ 1,084,369	\$ 991,054	\$ 746,498	\$ 634,936

AVAILABLE RESOURCES

Resources Available from Current Operations for Replacement & Renewal of Facility:				
	FY11 Actual	FY12 Actual	Rev. FY13 Budget	FY14 Budget
Capital Purposes				
Add Depreciation Expense	\$ 740,219	\$ 757,794	\$ 852,708	\$ 933,551
Add Net Income	1,084,369	991,054	746,498	634,936
Add Debt Financing	1,500,000	-	400,000	-
Less Bonds Payable	(550,000)	(670,000)	(470,000)	(510,000)
Net Available for Capital	\$ 2,774,588	\$ 1,078,848	\$ 1,529,206	\$ 1,058,487

CASH POSITION AND FUND BALANCE FORECAST

Cash at Year Opening	FY13		FY14	
	Operating Fund	Depreciation Fund	Operating Fund	Depreciation Fund
Cash on July 1st	\$ 5,167,220		\$ 4,767,426	
Add Receivables	786,964		786,964	
Add Inventory	44,940		44,940	
Less Cash held for Liabilities	(636,963)		(636,963)	
Fund Balance on July 1st	\$ 5,362,161		\$ 4,962,367	
Fund Balance Details (projected)	Operating Fund	Depreciation Fund	Operating Fund	Depreciation Fund
Fund Balance on July 1st	\$ 4,145,847	\$ 1,216,314	\$ 4,052,572	\$ 909,795
Net Income	746,498	-	634,936	-
Borrowing Proceeds (Repayment)	(70,000)	-	(510,000)	-
User Fee Supported Capital Outlay	-	(1,159,227)	-	(1,118,000)
Borrowing Supported Capital	(769,773)	-	(400,000)	-
Add Depreciation Exp./Capital Rsv.	-	852,708	-	933,551
Balance Projected at June 30th	4,052,572	909,795	3,777,508	725,346
Fund Balance on June 30th	\$ 4,962,367		\$ 4,502,854	
Cash at Year End (projected)				
Fund Balance on June 30th	\$ 4,962,367		\$ 4,502,854	
Less Receivables	(786,964)		(786,964)	
Less Inventory	(44,940)		(44,940)	
Add Unspent Borrowing	-		-	
Add Cash Held for Liabilities	636,963		636,963	
Projected Cash at June 30th	\$ 4,767,426		\$ 4,307,913	

DEBT SERVICE

	FY11	FY12	Rev. FY13	FY14
Long-Term Debt Repayment	Actual	Actual	Budget	Budget
Principal	\$ 550,000	\$ 670,000	\$ 470,000	\$ 510,000
Interest	177,465	194,767	177,744	161,144
Debt Issuance Expense	-	-	400	5,000
Total	\$ 727,465	\$ 864,767	\$ 648,144	\$ 676,144

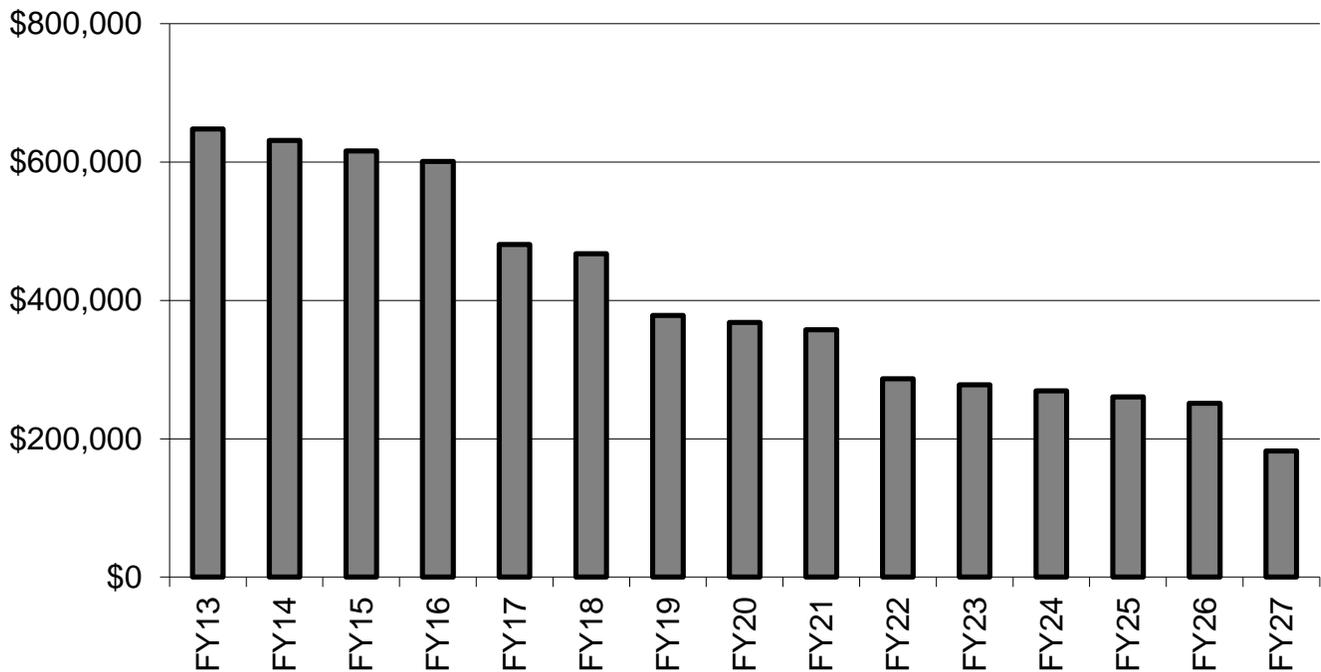
PAYMENTS TO THE GENERAL FUND

	FY11	FY12	Rev. FY13	FY14
	Actual	Actual	Budget	Budget
<u>Management & Engineering</u>				
Highway Maintenance	\$ 15,995	\$ 16,530	\$ 17,192	\$ 17,389
133/135 Keyes Road	49,476	45,511	49,168	47,980
Public Works Engineering	62,752	67,896	69,727	81,767
Public Works Administration	74,190	77,663	82,579	82,178
Subtotal	\$ 202,413	\$ 207,600	\$ 218,666	\$ 229,314
<u>Finance & Administrative</u>				
Town Manager	\$ 52,800	\$ 55,052	\$ 57,616	\$ 57,691
Human Resources	14,233	15,460	16,979	16,890
Town Accountant				
Accounting Services	43,494	45,491	47,661	48,329
Audit Services	6,000	6,000	6,000	6,000
Treasurer-Collector	46,652	48,041	49,876	50,161
Finance Administration	62,390	66,626	67,498	68,153
Information Systems (Direct Charge)	-	-	-	-
Town House Facility	6,990	7,157	6,891	6,547
Subtotal	\$ 232,559	\$ 243,827	\$ 252,521	\$ 253,771
<u>Natural Resources</u>				
Planning Administration	\$ 33,903	\$ 35,709	\$ 36,740	\$ 37,330
Natural Resource Protection	21,065	22,715	23,462	23,372
Health Department Services	21,792	23,084	24,082	24,781
Subtotal	\$ 76,760	\$ 81,508	\$ 84,284	\$ 85,483
Salary Reserve	-	-	-	19,080
Audit Adjustments	-	-	-	-
Totals	\$ 511,732	\$ 532,935	\$ 555,471	\$ 587,648

DEBT SERVICE SCHEDULE

(Issued through 6/30/2012)

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
FY13	470,000	177,744	647,744
FY14	470,000	161,144	631,144
FY15	470,000	146,144	616,144
FY16	470,000	130,681	600,681
FY17	370,000	110,706	480,706
FY18	370,000	97,388	467,388
FY19	295,000	83,213	378,213
FY20	295,000	73,050	368,050
FY21	295,000	62,450	357,450
FY22	235,000	51,850	286,850
FY23	235,000	43,050	278,050
FY24	235,000	34,250	269,250
FY25	235,000	25,300	260,300
FY26	235,000	16,275	251,275
<u>FY27</u>	<u>175,000</u>	<u>7,175</u>	<u>182,175</u>
Totals	\$ 4,855,000	\$ 1,220,420	\$ 6,075,420



DISTRIBUTION SYSTEM

Mains (New/Replacement): \$400,000 - Annual capital outlay for improvements and extension to distribution system including water services within the right of way. The water distribution system consists of over 130 miles of water main ranging in size from 6-inch to 16-inch. The replacement/rehabilitation program is designed to replace aging and deteriorating main in a methodical and prudent manner. The plan of work for FY14 includes the completion of Phase I and a portion of Phase II activities in the Riverdale and Southfield Road neighborhood.

Smart Water Meter Program: \$105,000 - Water fund portion of costs associated with system-wide meter maintenance and replacement efforts. Effort and investment to be expanded to allow for the first phase of a multi-year meter system upgrade designed to improve meter-reading and demand management capabilities.

Hydrants: \$34,000 - The Water Division conducts annual hydrant inspection and replacement activities to insure that all hydrants operate properly. Budget includes costs to replace approximately 15 of the 1,200 hydrants in the distribution system.

STRUCTURES

Station Structures: \$57,000 - Annual capital outlay for improvements and replacement of station structures. Planned work includes rehabilitation of one of the nine groundwater wells and replacement of Second Division Well bulk storage system.

Pumping Station Equipment: \$22,000 - 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. The Water Division is responsible for maintaining and making improvements to eight water pumping facilities and two storage reservoirs.

Reservoir Improvements: \$58,000 - Capital outlay for improvements and replacement of reservoirs. A detailed inspection of the Annursnac Hill Reservoir, a 2.5 million gallon storage structure, revealed long-term rehabilitation needs including the installation of a concrete liner and the replacement of the existing mixing system. Planned work includes costs to complete design effort.

Nagog Treatment Plant: \$642,000 – Due to continuation of successful resource protection and source management efforts, the Water Division has continued to maintain an existing filtration waiver. As a direct result of increasing regulatory and operational pressures, an evaluation of treatment technologies will be performed to better understand feasible alternatives with a goal of designing and constructing a filtration facility within the next few years.

GENERAL PLANT

Keys Road Facility \$90,000 - Capital outlay for improvements to Water/Sewer administrative office and garage facilities. Planned work includes construction of electrical room rehab/upgrades to accommodate SCADA/Records Room needs and evaluation of a new covered storage area for rolling fleet and large equipment.

Vehicles \$77,000 - Water/Sewer Fleet consists of 17 service vehicles and miscellaneous equipment such as compressor, vacuum, skid steer, and forklifts which are replaced in accordance with CPW criteria based on industry-accepted useful-life measures. Budget allowance includes the replacement of two service trucks and one 1-ton dump truck and body.

Miscellaneous Equipment \$21,000 - Miscellaneous equipment not included in 5-year capital equipment/vehicle plan.

SUPPLY/CAPACITY

Source Protection \$12,000 – Funds for ongoing implementation of water resource protection program.

CAPITAL SPENDING PLAN

Capital Activities	FY11	FY12	Rev. FY13	FY14
Distribution System	Actual	Actual	Budget	Estimate
Mains (0111)	\$ 202,003	\$ 229,813	\$ 340,000	\$ 400,000
Meters (0112)	9,616	25,539	50,000	105,000
Hydrants (0114)	28,157	32,129	33,000	34,000
Services (0113)	-	-	-	-
Bridge Main (0116)	-	-	-	-
Subtotal	\$ 239,776	\$ 287,481	\$ 423,000	\$ 539,000
Structures				
Station Structures (0121)	\$ 173,074	\$ 284,813	\$ 218,000	\$ 57,000
Pumping Station Equipment (0122)	20,451	42,611	22,000	22,000
Reservoir Improvements (129)	113,365	50,153	58,000	58,000
Nagog Improvements	87,917	-	224,000	642,000
Nagog - RT Pumping Station (323)	-	876,044	88,000	-
Nagog - Dam Reconstruction (332)	1,567	66,932	525,000	-
Nagog - Intake Design (333)	-	-	249,000	-
Treatment Optimization (0456)	10,837	-	-	-
Subtotal	\$ 407,211	\$ 1,320,553	\$ 1,384,000	\$ 779,000
General Plant				
135 Keyes Road (0135)	\$ 20,604	\$ 3,500	\$ 50,000	\$ 90,000
Vehicles (0236)	55,993	128,233	40,000	77,000
Miscellaneous Equipment	4,659	-	20,000	21,000
Depreciable - Personnel (0899)	15,792	17,521	-	-
Depreciable - Equipment (0899)	-	-	-	-
Subtotal	\$ 97,048	\$ 149,254	\$ 110,000	\$ 188,000
Supply and Capacity				
Source Protection (0124)	\$ 2,050	\$ -	\$ 12,000	\$ 12,000
Subtotal	\$ 2,050	\$ -	\$ 12,000	\$ 12,000
Audit Adjustments				
Audit Adjustment (Personnel)	\$ -	\$ -	\$ -	\$ -
Audit Adjustment (Other)	-	-	-	-
Subtotal	\$ -	\$ -	\$ -	\$ -
Total Capital Uses	\$ 746,085	\$ 1,757,288	\$ 1,929,000	\$ 1,518,000
Funding the Capital Plan				
From Debt	98,754	730,227	769,773	400,000
From Water Fund Resources	647,331	1,027,061	1,159,227	1,118,000
Total Capital Sources	\$ 746,085	\$ 1,757,288	\$ 1,929,000	\$ 1,518,000

Water Fund: Plan and Projection	ACTUAL FY 2012	Revised BUDGET FY 2013	PROJECTION		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	10 years FY 14-23
			FY 2014	FY 2015									
Operating Revenue													
User Fees	4,060,703	4,412,000	4,532,000	4,681,000	4,842,000	5,013,000	5,192,000	5,380,000	5,566,000	5,761,000	5,964,000	6,176,000	53,107,000
Other	264,611	90,000	91,000	92,000	93,000	94,000	95,000	96,000	97,000	98,000	99,000	100,000	955,000
Subtotal	4,325,314	4,502,000	4,623,000	4,773,000	4,935,000	5,107,000	5,287,000	5,476,000	5,663,000	5,859,000	6,063,000	6,276,000	54,062,000
Operating Expense													
O & M	2,401,325	2,739,552	2,911,157	3,001,913	3,212,606	3,312,901	3,416,479	3,523,458	3,633,960	3,748,113	3,866,050	3,987,909	34,614,544
Depreciation	757,794	852,708	933,551	1,229,554	1,479,351	1,515,513	1,506,009	1,525,427	1,407,515	1,294,705	1,315,497	1,307,003	13,514,124
Subtotal	3,159,119	3,592,260	3,844,708	4,231,466	4,691,957	4,828,413	4,922,488	5,048,884	5,041,475	5,042,818	5,181,546	5,294,912	48,128,668
Operating Income	1,166,195	909,740	778,292	541,534	243,043	278,587	364,512	427,116	621,525	816,182	881,454	981,088	5,933,332
ADD: Interest Income	19,626	14,902	22,788	30,402	39,062	50,271	58,705	68,674	81,874	97,198	117,166	143,057	709,198
Miscellaneous Non-Operating Income	0	0	0	0	0	0	0	0	0	0	0	0	0
LESS: Interest Expense	194,767	177,744	161,144	146,144	130,681	110,706	97,388	83,213	73,050	62,450	51,850	43,050	959,676
Existing Debt	0	0	0	12,000	11,400	306,000	290,640	275,280	284,920	267,060	249,200	231,340	1,927,840
Future Debt	0	0	1,000	0	36,900	0	0	6,250	0	0	0	0	44,150
Bond Anticipation Notes (BANs)	0	400	4,000	7,380	73,800	0	500	5,000	0	0	0	0	90,680
Issuance expense (Premium)	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income	991,054	746,498	634,936	406,411	29,324	-87,849	34,689	126,047	345,429	583,870	697,570	849,755	3,620,184
Available Resources from:													
Net income	991,054	746,498	634,936	406,411	29,324	-87,849	34,689	126,047	345,429	583,870	697,570	849,755	3,620,184
Depreciation expense	757,794	852,708	933,551	1,229,554	1,479,351	1,515,513	1,506,009	1,525,427	1,407,515	1,294,705	1,315,497	1,307,003	13,514,124
subtotal	1,748,848	1,599,206	1,568,487	1,635,965	1,508,676	1,427,664	1,540,698	1,651,474	1,752,945	1,878,575	2,013,067	2,156,758	17,134,308
Bond proceeds	0	400,000	0	7,380,000	7,380,000	0	500,000	500,000	0	0	0	0	7,880,000
Loan proceeds	0	0	0	0	0	0	0	0	0	0	0	0	7,880,000
LESS: Principal repayments	670,000	470,000	470,000	470,000	470,000	370,000	370,000	295,000	295,000	295,000	235,000	235,000	3,505,000
Existing Debt	0	0	40,000	20,000	20,000	389,000	389,000	389,000	439,000	439,000	439,000	439,000	3,003,000
New Debt	0	0	0	0	0	0	0	0	0	0	0	0	0
BAN Repayment	0	0	0	0	7,380,000	0	0	0	0	0	0	0	7,880,000
Net Available for Capital Purposes	1,078,848	1,529,206	1,058,487	8,525,965	1,018,676	668,664	1,281,698	967,474	1,018,945	1,144,575	1,339,067	1,482,758	18,506,308
Capital Plan	1,757,288	1,929,000	1,518,000	9,114,000	724,000	730,000	1,432,000	789,000	848,000	848,000	881,000	881,000	17,765,000
Cash Position													
Beginning balance	5,625,787	5,167,220	4,767,426	4,307,913	3,719,877	4,014,553	3,953,217	3,802,915	3,981,389	4,152,333	4,448,909	4,906,975	
ADD: Net available	1,078,848	1,529,206	1,058,487	8,525,965	1,018,676	668,664	1,281,698	967,474	1,018,945	1,144,575	1,339,067	1,482,758	
LESS: Planned Capital	1,757,288	1,929,000	1,518,000	9,114,000	724,000	730,000	1,432,000	789,000	848,000	848,000	881,000	881,000	
Changes in assets and liabilities	-219,873												
Ending balance	5,167,220	4,767,426	4,307,913	3,719,877	4,014,553	3,953,217	3,802,915	3,981,389	4,152,333	4,448,909	4,906,975	5,508,733	

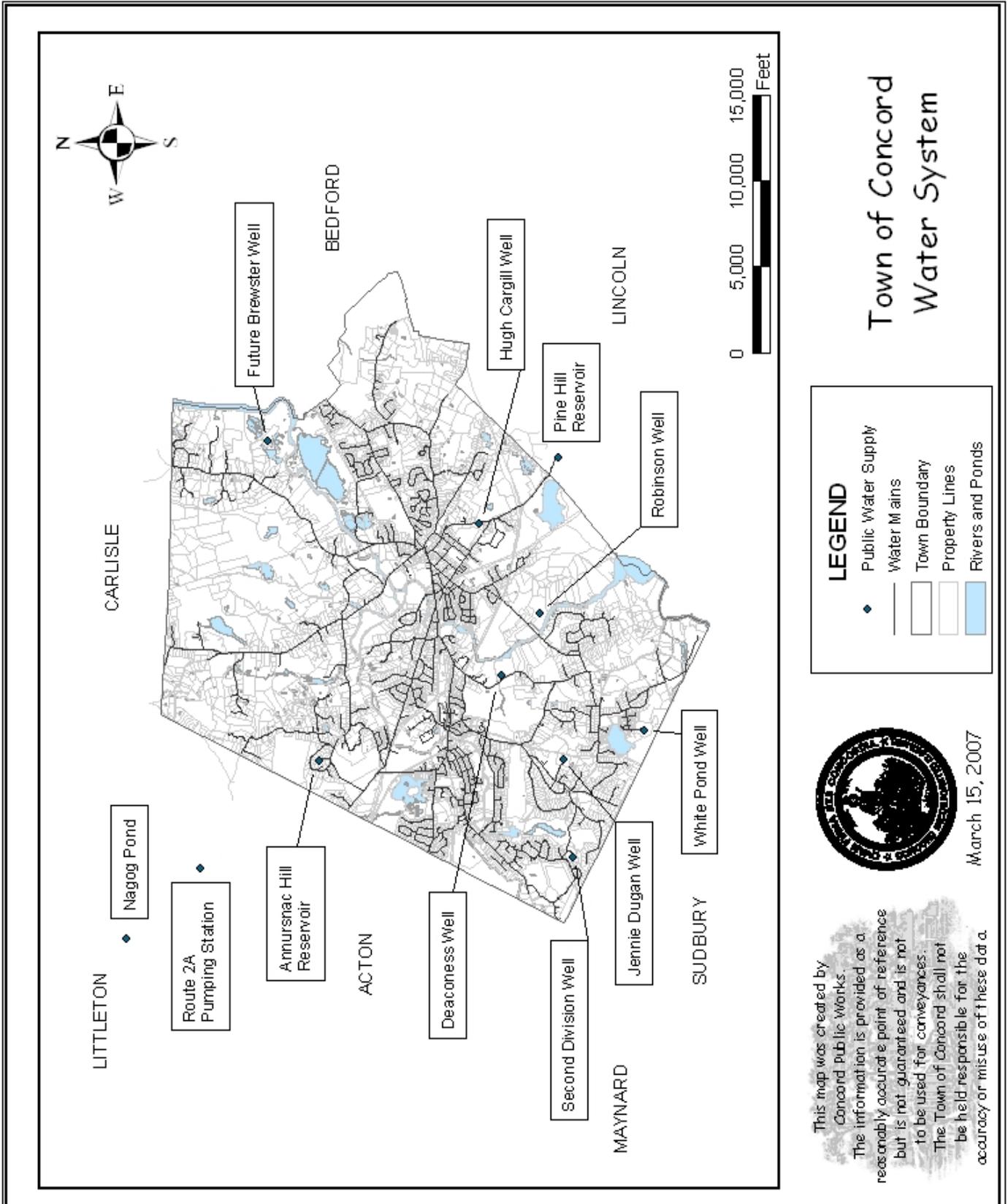
WATER RATES

(Per 100 Cubic Feet)

W-13 Class of Customer	Current FY13	Effective 6/1/13	%Chg.
1 & 2 Residential Service	(1 unit = 100 cubic feet = 748 gallons)		
1st Step: (all year)	\$ 4.24	\$ 4.41 **	4.0%
Conservation Step*: (25 - 48 units)	\$ 8.48	\$ 8.82	4.0%
Conservation Step*: (over 48 units) *May 1st through October 31st	\$ 10.60	\$ 11.03	4.1%
3 General Service			
1st Step: (all year)	\$ 4.24	\$ 4.41	4.0%
2nd Step: (all year) (over 50 units bimonthly)	\$ 5.39	\$ 5.61	4.1%
4 Municipal Service			
1st Step: (all year) Interruptible Outdoor Irrigation use	\$ 4.18	\$ 4.35	4.1%
5 Second Meter Service			
A. Irrigation/Pool or Accessory use:			
1st Step: (all year)	\$ 8.48	\$ 8.82	4.0%
Conservation Step: (over 48 units bimonthly, May 1st through October 31st)	\$ 10.60	\$ 11.03	4.1%
B. Non-Irrigation Commercial/Industrial	\$ 5.39	\$ 5.61	4.1%

**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	New 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>	\$ 382	\$ 397	\$ 15.30	\$ 1.28	4.0%
1b Large Summertime Residential Customer (40 units bimonthly during summer; 25 units bimonthly rest of year)	\$ 1,030	\$ 1,072	\$ 41.31	\$ 3.44	4.0%
1c Larger Summertime Residential Customer (60 units bimonthly during summer; 25 units bimonthly rest of year)	\$ 1,615	\$ 1,680	\$ 64.95	\$ 5.41	4.0%
3a Small Commercial Customer (40 units bimonthly) <i>Approximately two-thirds of commercial/institutional/Gov't customers normally use less than than the 2nd step threshold.</i>	\$ 1,018	\$ 1,058	\$ 40.80	\$ 3.40	4.0%
3b Large Commercial Customer (5,000 units bimonthly)	\$161,355	\$ 167,940	\$ 6,585	\$ 548.75	4.1%
5a Small Municipal Customer (47 units bimonthly)	\$ 1,179	\$ 1,227	\$ 48	\$ 3.99	4.1%
5b Large Municipal Customer (600 units bimonthly)	\$ 15,048	\$ 15,660	\$ 612	\$ 51.00	4.1%



This map was created by Concord Public Works. The information is provided as a reasonably accurate point of reference but is not guaranteed and is not to be used for conveyances. The Town of Concord shall not be held responsible for the accuracy or misuse of these data.



March 15, 2007

LEGEND

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

Town of Concord
Water System