

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.

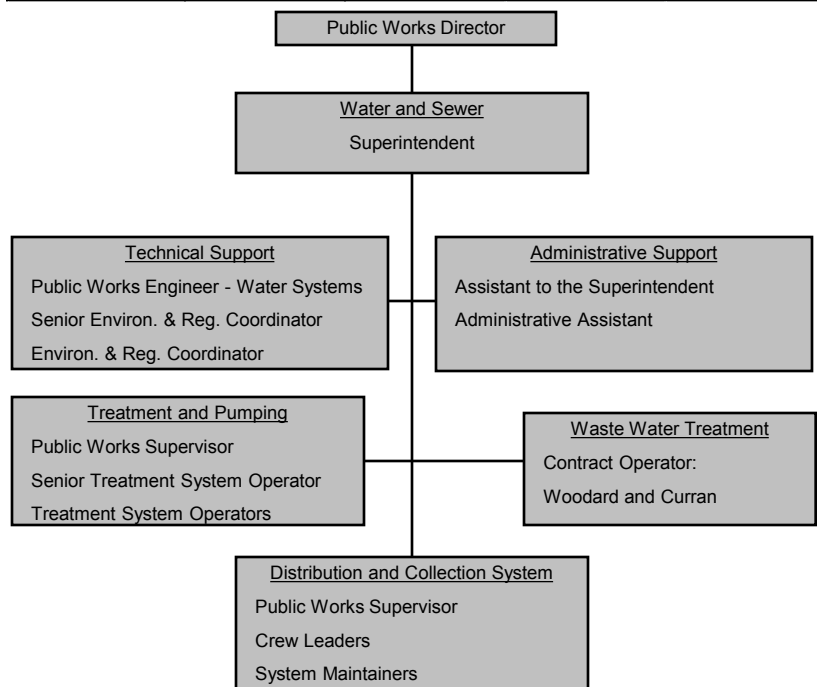
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Highlights

- The proposed FY13 base level (Step 1) water rate of \$4.24 per unit represents a 3.4% increase over the FY12 rate of \$4.10 per unit. *See pages IV-3 and IV-14.
- The proposed FY13 capital investment plan is \$2.37 million with \$1.23 million funded from debt.
- Nagog Pond Filtration : A budget allowance of \$100,000 is proposed for a preliminary design of a Nagog Filtration Plant.
- Water Main Replacement: A budget allowance of \$340,000 is proposed for annual water main replacement activities planned for the Southfield/Riverdale Road neighborhood.
- The proposed FY13 Operating Income is \$720,759 and Net Income is \$553,706.

Expenditure Summary				
	FY10 Actual	FY11 Actual	FY12 Budget	FY13 Proposed
Operating Income	\$ 646,395	\$ 1,199,850	\$ 558,629	\$ 720,759
Net Income	\$ 477,365	\$ 1,084,369	\$ 370,594	\$ 553,706
Fund Balance	\$ 4,040,863	\$ 6,083,940	\$ 4,206,878	\$ 4,103,140



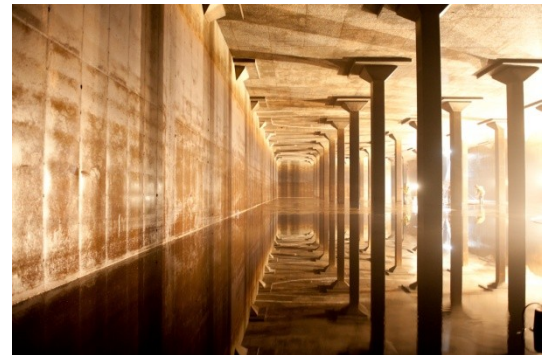
Description:

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 2011, the total value of infrastructure assets was approximately \$18.5 million.

There are presently 5,513 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.

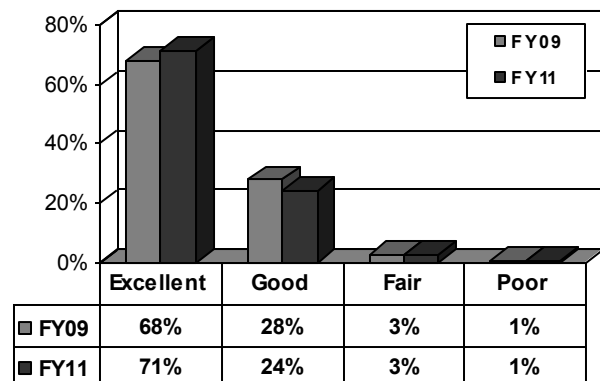
Since the Water Enterprise fund was formally established in 1974, there have been no property tax contributions requested to subsidize annual operations or maintenance of pre-existing infrastructure. Taxpayer contributions would only be sought for major system expansion projects or facility upgrades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

Citizen Survey

In the fall of 2006, 2008, and 2010 the Town conducted telephone surveys 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 (71%) thought that the quality is Excellent and another (24%) thought it is Good.

Below are the results of the question, “What is your opinion of the price of water service?” In FY11, of those who said they use the service, 19% thought that the price is a Good Bargain and 72% thought that it is Reasonably Priced. From FY09 to FY11, we see a shift away from the opinion that water services are a good bargain.

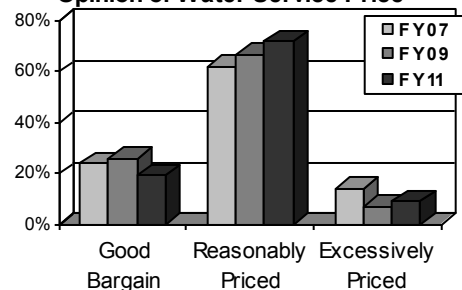
How would you rate the overall quality of water services provided by the Town?



What is your opinion of the price of Town water Services?				
	FY05	FY07	FY09	FY11
Good Bargain	N/A	24%	26%	19%
Reasonably Priced	N/A	62%	67%	72%
Excessively Priced	N/A	14%	7%	9%

*Data Source: Autumn of 2006, 2008, and 2010 telephone surveys (300+ residents).

Opinion of Water Service Price



Water Rates

The total revenue projected to be raised through water user fees in FY13 is: **\$4,206,000** 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:

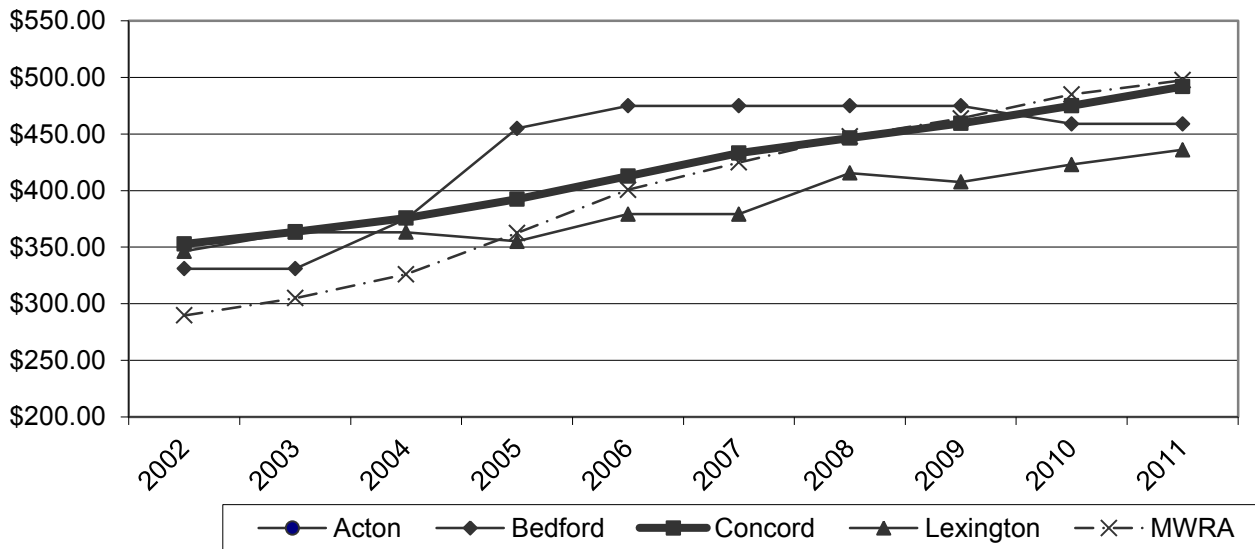
1. To ensure that the Division has the resources to operate, maintain, and improve the system;
2. To encourage users to conserve water; and
3. To minimize rate changes so that water use can be a relatively predictable expense for customers.

Water Rate Highlights

The FY13 proposed Residential Service (step 1) water rate is \$4.24 per unit (1 unit = 748 gallons)

- The FY13 rate of \$4.24 represents a 3.4% increase over the FY12 rate of \$4.10.
- In FY13, the average residential customer is expected to pay a total of \$382 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 \$4.24 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.

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 Massachusetts 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.

Water Infrastructure Alert:

American Water Works Association has just completed a national, comprehensive assessment of water system infrastructure needs entitled "**Buried No Longer: Confronting America's Water Infrastructure Challenge**". This report "*is a call to action for utilities, consumers and policy makers and recognizes that the need to replace pipe in the ground*". The cost implications are expected to represent "*a growing stress on communities that will continue to increase for decades to come.*" The report identifies a massive investment needed for buried drinking water infrastructure in the United States totaling more than \$1 trillion between now and 2035. The need will double from roughly \$13 billion a year today to almost \$30 billion (in 2010 dollars) annually by the 2040's, and the cost will be met primarily through higher water bills and local fees,

In 2009, the Massachusetts Legislature established its own **Water Infrastructure Finance Commission** to explore this same issue in Massachusetts. The Commission's report, just released, finds that Massachusetts, like other states, faces a substantial water infrastructure gap. Using the best available data, the Commission estimates that the Commonwealth faces a \$10.2 billion gap in resources for drinking water over the next 20 years. The gap estimates include capital investment, repair and replacement, operations & maintenance and debt service. Estimates do not include the cost of evolving regulatory requirements or investments to accommodate economic growth. Operating costs include rising costs such as energy and employee benefits.

As an Enterprise Fund, Concord Water continues to account for long-term water infrastructure replacement and improvement needs. Annual water system replacement projects are planned each year. Water supply investments are also strategically coordinated to eliminate making unnecessary investments before they are operationally prudent or mandated by regulation.

Nagog Pond Filtration:

Within the next several years, it is increasingly apparent that Concord will be ordered to design and construct a Nagog Pond filtration facility. While Concord has successfully deferred such an investment by maintaining a filtration "waiver" for the better part of 20 years, expanding customer needs coupled with a recent "re-interpretation" of the waiver agreement requires that Town re-assess these planning assumptions.

While a significant reduction in customer demand - especially during peak seasonal "outdoor" demand periods – could help hold off a mandatory trigger for making such an investment, deferral is unlikely. As such, the Water Division has begun to evaluate treatment options. At the same time, we will continue to encourage all customers to be responsive to seasonal water conservation triggers, and use less water during the summer months. Customer response can influence the design and construction schedule of this new facility.



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, and the Annual Water Quality Report is sent to every customer each spring. In addition to routine testing noted above, lead and copper sampling activities were conducted at designated, reference sample sites located throughout the distribution system during the summer of 2011. Findings once again highlighted the success of ongoing water quality conditioning activities performed at existing water supply treatment systems, especially as they relate to corrosion control and impacts on private plumbing fixtures.

Station Equipment: Ongoing maintenance and inspection of seven water production facilities and related treatment systems continue on a daily basis. Following the cleaning and inspection activities performed within existing treated water storage reservoirs, Solarbee Inc. furnished and installed new submersible mixing systems in both reservoirs. Each mixing system was field-validated over several months via in-house sampling efforts. Sampling confirmed that the introduction of these new, state-of-the-art, water mixing systems has resulted in notable improvements in water quality control within the Town's distribution system.

Nagog Treatment Plant: Nagog Pond continues to operate under a federal filtration waiver awarded due to a highly successful watershed protection program. To address new regulations recently promulgated by the EPA, effective in 2013, specifically identified as the Long-term 2 Enhanced Water Treatment Rule (LT2ESWT), the Town installed a new disinfection system within the Route 2A water pumping facility. This work was done in concert with a significantly larger rehabilitation project planned for this 50-year-old facility. Stantec Consultant Services Inc. (Westford, MA) prepared detailed design and contract plans and specifications for this rehabilitation project, and Barbato Construction (Middleboro, MA) was awarded the construction contract.

Nagog Pond Dam Rehabilitation: Pare Associates (Foxborough, MA) was retained to perform permitting activities and detailed design services required to develop contract plans and specifications for the rehabilitation of Nagog Pond Dam located in Acton, MA. This work is being conducted in accordance with requirements of the Massachusetts Department of Recreation's Office of Dam Safety to bring the dam structure into compliance with Dam Safety Regulations, Chapter 253 Section 44-48 and 302 CMR Section 10.00. In addition to rehabilitating the 15-ft high, 168-ft long concrete dam structure, additional improvements will be made to the low-level outlet, primary spillway, and gate house foundation.

Mains (New/Replacement): James Fenton & Sons Contracting, Inc. (Acton, MA) performing as a subcontractor to Lazaro Paving Corp. replaced 785 ft of 6-inch cast iron water main along Union and Fielding Streets with 8-inch cement-lined ductile iron (CLDI) pipe. This work was performed under the supervision of the Water Division and included renewal of all water services to the edge of the public owned right-of-way. This work was coordinated with the Concord Public Works Roads program which included drainage improvements within this same neighborhood.

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 to 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.

Vector Equipment Upgrade: Vacuum excavation is performed with specialized equipment that uses high-pressure water or pressurized air to break up soils/wastewater debris which is then removed/excavated using a high-flow vacuum system. This specialized equipment is also commonly used for cleaning and maintaining buried sewer collection system infrastructure. The Water and Sewer Division recently upgraded its Vector truck from a 3-yard capacity to 10-yard capacity which will significantly increase construction safety and productivity associated with routine and emergency water and sewer system maintenance activities. This excavation method also results in less surface damage within the right-of-way and reduces disruption of traffic and other surface activities.

Program Implementation

The proposed fiscal year 2013 budget provides for an operating income of \$720,759 and a net income of \$553,706.

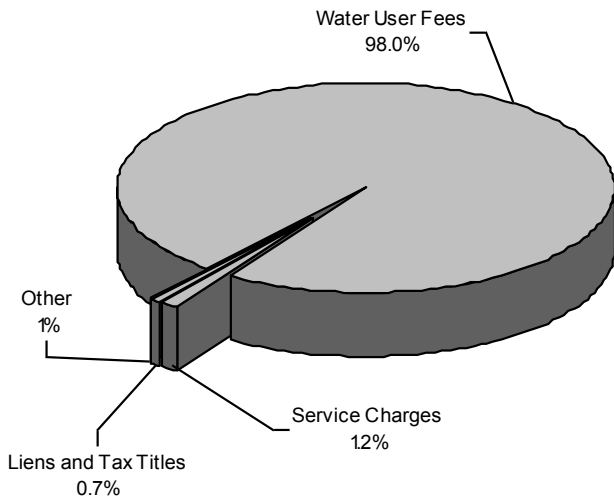
Depreciation expense reflects the cost imposed by the annual use, or wear-and-tear, of the Water Division's approximately \$18.5 million worth of infrastructure (as of the end of FY11). The budgeted depreciation expense, totaling \$806,556, represents a depreciation of roughly 4% of these capital assets in FY13.

Personnel Services are budgeted to total \$1,171,179 in FY13, a 3.8% increase from the revised FY12 total of \$1,128,607.

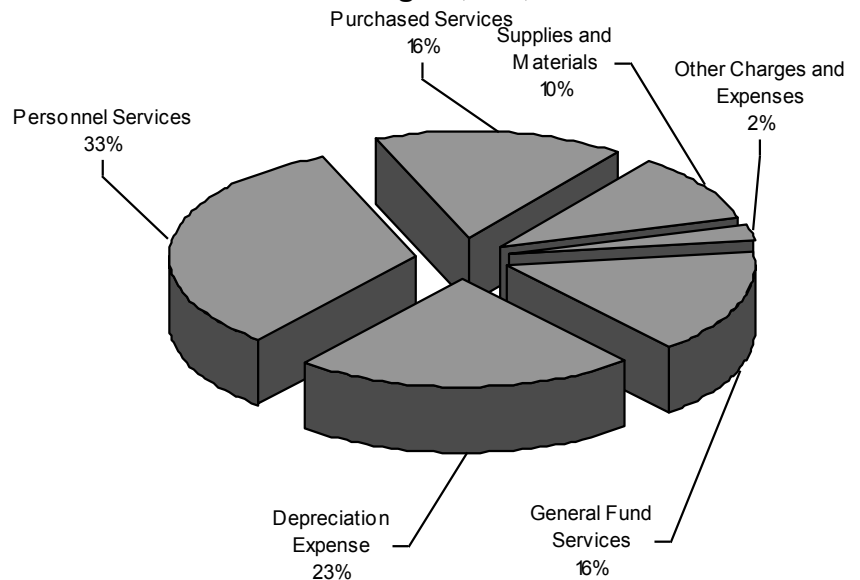
The most significant change in operating expense within the past several years relates to the cost of personal services. For the past two years, two positions within the Division have remained vacant: one Water/Sewer Maintainer and the Conservation Coordinator. The FY13 budget proposes that the temporary Environmental Technician position is changed to a new, permanent, full time position of Environmental & Regulatory Coordinator on June 1, 2012. This position will also assist the newly reclassified Senior Environmental and Regulatory Coordinator within the Division's Conservation programs.

The next largest expense categories are for electricity and chemicals, and 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, but this demand is directly affected by weather conditions, as well as the water conservation behavior of customers.

Operating Revenues
Totalling \$4,291,000



Operating Expenditures
Totalling \$3,570,241



OPERATING REVENUES (\$)

	FY10 Actual	FY11 Actual	Rev. FY12 Budget	FY13 Budget
Water User Fees	\$ 3,668,448	\$ 4,264,308	\$ 3,957,000	\$ 4,206,000
Service Charges	23,545	67,130	50,000	51,000
Liens and Tax Titles	21,867	34,317	30,000	30,000
Other	5,474	8,574	4,000	4,000
Operating Revenues Total	\$ 3,719,334	\$ 4,374,329	\$ 4,041,000	\$ 4,291,000

OPERATING EXPENSES (\$)

	FY10 Actual	FY11 Actual	Rev. FY12 Budget	FY13 Budget
<u>Personnel Services</u>				
Personnel Expenses	\$ 955,913	\$ 996,848	\$ 1,128,607	\$ 1,171,779
Audit Adjustment	2,784	(4,560)	-	-
Subtotal	\$ 958,697	\$ 992,288	\$ 1,128,607	\$ 1,171,779
<u>Non-Personnel Services</u>				
Purchased Services	399,865	521,036	574,176	582,865
Supplies & Materials	381,121	334,581	372,897	371,960
Other Charges & Expenses	88,420	46,969	77,412	82,181
Audit Adjustment	(40,462)	10,814	-	-
Subtotal	\$ 828,944	\$ 913,400	\$ 1,024,485	\$ 1,037,006
<u>Other</u>				
General Fund Services	513,281	511,732	532,935	554,900
Transfer to Road Repair Fund	40,511	16,840	-	-
Depreciation Expense	731,506	740,219	796,344	806,556
Subtotal	\$ 1,285,298	\$ 1,268,791	\$ 1,329,279	\$ 1,361,456
Total Operating Expense	\$ 3,072,939	\$ 3,174,479	\$ 3,482,371	\$ 3,570,241

AUTHORIZED POSITIONS (\$)				
Regular Staff	FY12 Revised Budget		FY13 Initial Budget	
	\$ Amount	\$ Amount	Positions/Hours	\$ Amount
Water and Sewer Superintendent	\$ 82,792	0.80 FTEs	\$ 82,831	0.80 FTEs
Public Works Engineer - Water Systems	13,173	0.20	13,173	0.20
Assistant to Superintendent	63,361	0.80	63,361	0.80
Sr. Environ. & Regulatory Coord.	53,944	0.80	53,944	0.80
Administrative Assistant	43,640	0.80	43,640	0.80
Public Works Supervisor	116,105	1.60	117,807	1.60
Crew Leader	97,231	1.60	98,608	1.60
Senior Treatment Systems Operator	46,662	0.00	48,725	0.80
Treatment System Operator	82,071	2.40	83,168	1.60
System Maintainer	181,698	4.00	183,737	4.00
Environ. & Regulatory Coord.	37,218	0.65	41,000	0.80
Standby Pay (5111)	18,999	0.27	12,713	0.17
Charges to Snow Account	(4,046)	-0.08	(4,046)	-0.08
Charges to Capital Projects	(18,824)	N/A	(18,824)	N/A
Vacancy Savings	-	N/A	-	0
Salary Adjustments	-	N/A	32,793	-
Subtotal	\$ 814,024	13.84 FTEs	\$ 852,630	13.90 FTEs
5120				
Environmental Technology Intern	\$ 8,800	800 hrs.	\$ -	0 hrs.
GIS Project Specialist	12,012	624 hrs.	14,014	728 hrs.
Subtotal	\$ 20,812	0.68 FTEs	\$ 14,014	0.35 FTEs
Employee Benefits				
Health Insurance	\$ 72,782	N/A	\$ 72,782	N/A
Life Insurance	300	N/A	300	N/A
Dental Insurance	3,500	N/A	3,500	N/A
Retirement Contribution	35,345	N/A	36,158	N/A
OPEB Contribution	74,498	N/A	81,367	N/A
Subtotal	\$ 186,425	N/A	\$ 194,107	N/A
Payroll Taxes				
Medicare Tax	\$ 9,500	N/A	\$ 9,500	N/A
Social Security Contribution	1,500	N/A	1,500	N/A
Subtotal	\$ 11,000	N/A	\$ 11,000	N/A
Other Personnel Costs				
Overtime (5130)	\$ 73,739	1800 hrs.	\$ 75,715	1800 hrs.
Overtime Adjustments (5130)	5,300	N/A	4,160	N/A
Salary Adjustment OT (5130)	-	N/A	3,029	N/A
Police Overtime (5131)	7,400	185 hrs.	7,400	800 hrs.
Mobile Phone Allowance	3,456	N/A	3,456	N/A
IT Salary (5199)	6,451	N/A	6,268	N/A
Subtotal	\$ 96,346	N/A	\$ 100,028	N/A
Total Personnel Costs	\$ 1,128,607	14.53 FTEs	\$ 1,171,779	14.25 FTEs

NET INCOME (\$)				
	FY10	FY11	Rev. FY12	FY13
	Actual	Actual	Budget	Budget
Statement of Net Income:				
Operating Revenues	\$ 3,719,334	\$ 4,374,329	\$ 4,041,000	\$ 4,291,000
Less Operating Expenses	(3,072,939)	(3,174,479)	(3,482,371)	(3,570,241)
Operating Income	\$ 646,395	\$ 1,199,850	\$ 558,629	\$ 720,759
Nonoperating Revenues (Expenses)				
Add Investment Income	\$ 23,813	\$ 18,111	\$ 14,062	\$ 11,090
Add Other Revenue	\$ -	\$ 43,873		
Less Interest Expense	(192,843)	(177,465)	(202,097)	(177,744)
Issuance Expense	-	-	-	(400)
Nonoperating Income	\$ (169,030)	\$ (115,481)	\$ (188,035)	\$ (167,054)
Net Income	\$ 477,365	\$ 1,084,369	\$ 370,594	\$ 553,706
AVAILABLE RESOURCES (\$)				
Resources Available from Current Operations for Replacement & Renewal of Facility:				
	FY10	FY11	Rev. FY12	FY13
	Actual	Actual	Budget	Budget
Capital Purposes				
Add Depreciation Exp. & Cap. Rsv.	\$ 731,506	\$ 740,219	\$ 796,344	\$ 806,556
Add Net Income	477,365	1,084,369	370,594	553,706
Add Debt Financing	-	1,500,000	-	400,000
Less Bonds Payable	(560,000)	(550,000)	(670,000)	(470,000)
Net Available for Capital	\$ 648,871	\$ 2,774,588	\$ 496,938	\$ 1,290,262
CASH POSITION AND FUND BALANCE FORECAST				
Cash at Year Opening	FY12		FY13	
Cash on July 1st	\$ 5,625,787		\$ 3,748,725	
Add Receivables	841,714		841,714	
Add Inventory	42,455		42,455	
Less Cash held for Liabilities	(426,016)		(426,016)	
Fund Balance on July 1st	\$ 6,083,940		\$ 4,206,878	
Fund Balance Details (projected)	Operating Fund	Depreciation Fund	Operating Fund	Depreciation Fund
Fund Balance on July 1st	\$ 4,811,108	\$ 1,272,832	\$ 3,274,702	\$ 932,176
Net Income	370,594	-	553,706	-
Borrowing Proceeds (Repayment)	(670,000)	-	(70,000)	-
User Fee Supported Capital Outlay	-	(1,137,000)	-	(780,000)
Borrowing Supported Capital	(1,237,000)	-	(614,000)	-
Add Depreciation Exp./Capital Rsv.	-	796,344	-	806,556
Balance Projected at June 30th	3,274,702	932,176	3,144,408	958,732
Fund Balance on June 30th	\$ 4,206,878		\$ 4,103,140	
Cash at Year End (projected)				
Fund Balance on June 30th	\$	4,206,878	\$	4,103,140
Less Receivables		(841,714)		(841,714)
Less Inventory		(42,455)		(42,455)
Add Unspent Borrowing		-		-
Add Cash Held for Liabilities		426,016		426,016
Projected Cash at June 30th	\$	3,748,725	\$	3,644,986

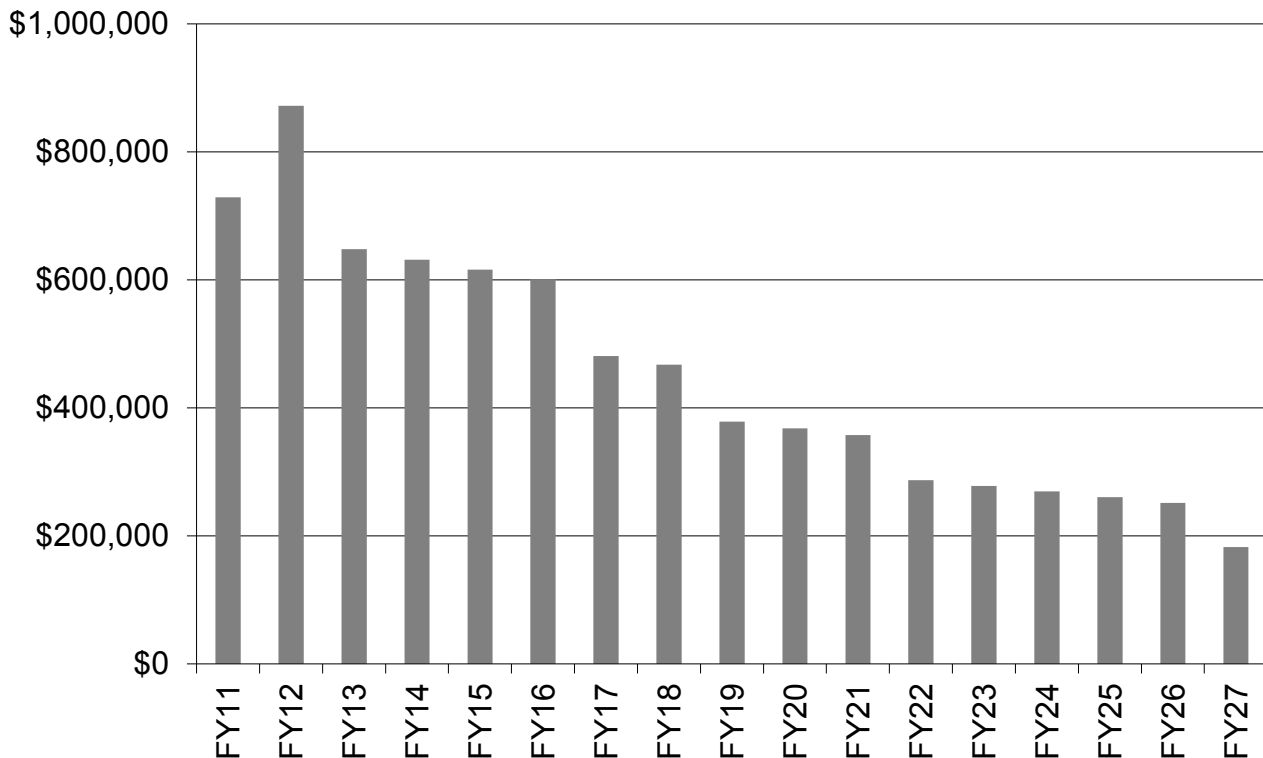
DEBT SERVICE (\$)				
<u>Cash Basis</u>	FY10	FY11	Rev. FY12	FY13
Long-Term Debt Repayment	Actual	Actual	Budget	Budget
Principal	\$ 560,000	\$ 550,000	\$ 670,000	\$ 470,000
Interest	192,843	177,465	202,097	177,744
Debt Issuance Expense	-	-	-	400
Total	\$ 752,843	\$ 727,465	\$ 872,097	\$ 648,144

PAYMENTS TO THE GENERAL FUND (\$)

	FY10	FY11	Rev. FY12	FY13
	Actual	Actual	Budget	Budget
<u>Management & Engineering</u>				
Highway Maintenance	\$ 15,677	\$ 15,995	\$ 16,530	\$ 16,727
133/135 Keyes Road	52,371	49,476	45,511	49,168
Public Works Engineering	64,717	62,752	67,896	68,114
Public Works Administration	72,197	74,190	77,663	77,486
Subtotal	\$ 204,962	\$ 202,413	\$ 207,600	\$ 211,495
<u>Finance & Administrative</u>				
Town Manager	\$ 52,627	\$ 52,800	\$ 55,052	\$ 55,502
Human Resources	13,500	14,233	15,460	16,577
Town Accountant				
Accounting Services	43,770	43,494	45,491	46,531
Audit Services	6,000	6,000	6,000	6,000
Treasurer-Collector	44,845	46,652	48,041	48,764
Finance Administration	66,234	62,390	66,626	64,077
Information Systems (Direct Charge)	-	-	-	-
Town House Facility	5,973	6,990	7,157	6,828
Subtotal	\$ 232,949	\$ 232,559	\$ 243,827	\$ 244,279
<u>Natural Resources</u>				
Planning Administration	\$ 32,925	\$ 33,903	\$ 35,709	\$ 35,324
Natural Resource Protection	20,675	21,065	22,715	22,734
Health Department Services	21,770	21,792	23,084	23,261
Subtotal	\$ 75,370	\$ 76,760	\$ 81,508	\$ 81,319
Salary Reserve	-	-	-	17,807
Audit Adjustments	-	-	-	-
Totals	\$ 513,281	\$ 511,732	\$ 532,935	\$ 554,900

Water Debt Service

Fiscal Year	Principal	Interest	Totals
FY11	550,000	178,669	728,669
FY12	670,000	202,097	872,097
FY13	470,000	177,744	647,744
FY14	470,000	161,394	631,394
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
FY27	175,000	7,175	182,175
Totals	\$ 6,075,000	\$ 1,601,436	\$ 7,676,436



DISTRIBUTION SYSTEM

Mains (New/Replacement): \$340,000 - 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. Plan of work includes the beginning of a replacement initiative in the Southfield Road neighborhood.

Meter Replacement Program: \$50,000 - Water fund portion of costs associated with system-wide meter replacement efforts. Effort expanded in coordination with CMLP to allow for inclusion of radio-read and smart meter technology for improved meter-reading and demand-management capabilities.

Hydrants: \$33,000 - Concord Water conducts annual hydrant inspection and replacement activities to insure all hydrants operate properly. Budget includes costs to replace approximately 15 of the 1,200 hydrants in the distribution system.

STRUCTURES

Station Structures: \$55,000 - Annual capital outlay for improvements and replacement of station structures. Planned work includes rehabilitation of one of the nine groundwater wells in the system and phase II of the access management control initiative.

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. Presently, the Water Division is served by eight water supply 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: \$100,000 – 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. Alternative funding sources, such as sale of property or siting of renewable energy facilities, will be considered. Preliminary design of a filtration system is \$100,000. Final design is anticipated to be completed in FY 2014.

Nagog Dam Rehabilitation: \$614,000 Nagog Pond Dam is a 15-ft high, 168-ft long concrete gravity section dam containing a sharp-crested spillway with a steel weir plate. The dam was originally constructed in 1909 as part of the development of Nagog Pond for use as an active water supply for the Town of Concord. Planned work includes construction/rehabilitation of the dam.

GENERAL PLANT

Keys Road Facility \$50,000 - Capital outlay for improvements to Water/Sewer Administrative Office and Garage facilities. Planned work includes construction of electrical room rehab/upgrades (which will accommodate SCADA/Records Room area and reconfiguration/replacement of Emergency Generator).

Vehicles \$40,000 - 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 a pick-up truck and a Hybrid SUV.

Miscellaneous Equipment \$20,000 - 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	FY10	FY11	Rev. FY12	FY13
Distribution System	Actual	Actual	Budget	Estimate
Mains (0111)	\$ 238,041	\$ 202,003	\$ 320,000	\$ 340,000
Meters (0112)	19,576	9,616	36,000	50,000
Hydrants (0114)	-	28,157	33,000	33,000
Services (0113)	-	-	13,000	-
Bridge Main (0116)	10,836	-	-	-
Subtotal	\$ 268,453	\$ 239,776	\$ 402,000	\$ 423,000
Structures				
Station Structures (0121)	\$ -	\$ 173,074	\$ 339,000	\$ 55,000
Pumping Station Equipment (0122)	26,021	20,451	45,000	22,000
Reservoir Improvements	-	113,365	68,000	58,000
Nagog Improvements (0136)	60,414	89,484	1,322,000	714,000
Iron & Manganese Removal Project	-	10,837	-	-
	-	-	-	-
Subtotal	\$ 86,435	\$ 407,211	\$ 1,774,000	\$ 849,000
General Plant				
135 Keyes Road (0135)	\$ -	\$ 20,604	\$ 32,000	\$ 50,000
Vehicles (0236)	27,366	55,993	134,000	40,000
Miscellaneous Equipment	-	4,659	12,000	20,000
Depreciable - Personnel (0899)	14,403	15,792	-	-
Depreciable - Equipment (0899)	-	-	-	-
Subtotal	\$ 41,769	\$ 97,048	\$ 178,000	\$ 110,000
Supply and Capacity				
Source Protection (0124)	\$ -	\$ 2,050	\$ 20,000	\$ 12,000
Subtotal	\$ -	\$ 2,050	\$ 20,000	\$ 12,000
Audit Adjustments				
Audit Adjustment (Personnel)	\$ -	\$ -	\$ -	\$ -
Audit Adjustment (Other)	41,169	-	-	-
Subtotal	\$ 41,169	\$ -	\$ -	\$ -
Total Capital Uses	\$ 437,826	\$ 746,085	\$ 2,374,000	\$ 1,394,000
Funding the Capital Plan				
From Debt	-	98,754	1,237,000	614,000
From Water Fund Resources	437,826	647,331	1,137,000	780,000
Total Capital Sources	\$ 437,826	\$ 746,085	\$ 2,374,000	\$ 1,394,000

Water Fund: Plan and Projection	BUDGET		PROJECTION		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	10 Years
	FY 2011	FY 2012	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2022	FY 13-22
Operating Revenue															
User Fees	4,264,308	3,957,000	4,206,000	4,206,000	4,402,000	4,545,000	4,732,000	4,927,000	5,131,000	5,343,000	5,563,000	5,790,000	6,026,000	6,026,000	50,665,000
Other	110,022	84,000	85,000	85,000	86,000	87,000	88,000	89,000	90,000	91,000	92,000	93,000	94,000	94,000	895,000
Subtotal	4,374,330	4,041,000	4,291,000	4,291,000	4,488,000	4,632,000	4,820,000	5,016,000	5,221,000	5,434,000	5,655,000	5,883,000	6,120,000	6,120,000	51,560,000
Operating Expense															
O & M	2,434,260	2,686,027	2,763,685	2,763,685	2,849,850	2,938,828	3,147,694	3,246,112	3,347,762	3,452,760	3,561,227	3,673,290	3,789,081	3,789,081	32,770,288
Depreciation	740,219	796,344	806,556	806,556	909,142	646,653	1,481,859	1,494,643	1,468,021	1,436,761	1,315,302	1,233,014	1,238,886	1,238,886	11,730,837
Subtotal	3,174,479	3,482,371	3,570,241	3,570,241	3,758,992	3,585,481	4,329,553	4,740,756	4,815,783	4,889,520	4,876,529	4,906,304	5,027,967	5,027,967	44,501,126
Operating Income	1,199,851	558,629	720,759	720,759	729,008	1,046,519	490,447	275,244	405,217	544,480	778,471	976,696	1,092,033	1,092,033	7,058,874
ADD: Interest Income	18,111	14,062	11,090	11,090	18,142	28,505	40,087	49,036	55,058	62,621	74,843	90,681	112,382	112,382	542,447
Miscellaneous Non-Operating Income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LESS: Interest Expense															
Existing Debt	177,465	157,869	136,869	136,869	124,119	111,269	98,206	81,831	72,113	62,738	56,175	56,175	49,175	49,175	848,670
Future Debt		44,228	40,875	40,875	53,275	49,808	190,442	478,575	451,708	423,642	396,775	396,775	369,908	369,908	2,851,783
Bond Anticipation Notes (BANs)	0	0	0	0	2,000	21,615	60,000	0	0	0	0	0	0	0	83,615
Issuance expense (Premium)	-43,872	0	400	400	6,882	34,820	60,000	0	0	0	0	0	0	0	102,102
Net Income	1,084,369	370,594	553,706	553,706	560,875	857,511	121,886	-236,125	-63,547	120,722	400,364	614,427	785,332	785,332	3,715,152
Available Resources from:															
Net income	1,084,369	370,594	553,706	553,706	560,875	857,511	121,886	-236,125	-63,547	120,722	400,364	614,427	785,332	785,332	3,715,152
Depreciation expense & capital reserve subtotal	740,219	796,344	806,556	806,556	909,142	646,653	1,481,859	1,494,643	1,468,021	1,436,761	1,315,302	1,233,014	1,238,886	1,238,886	11,730,837
Bond proceeds	1,824,588	1,166,938	1,360,261	1,360,261	1,470,016	1,504,164	1,303,745	1,258,518	1,404,475	1,557,482	1,715,666	1,847,441	2,024,218	2,024,218	15,445,989
Loan proceeds	1,500,000		400,000	400,000	2,882,000	6,000,000	6,000,000								9,282,000
LESS: Principal repayments															
Existing Debt	550,000	550,000	350,000	350,000	350,000	350,000	350,000	250,000	250,000	175,000	175,000	175,000	175,000	175,000	2,600,000
New Debt	0	120,000	120,000	120,000	146,667	146,667	290,667	590,667	590,667	590,667	590,667	590,667	590,667	590,667	4,188,003
BAN Repayment					400,000	2,882,000	6,000,000								9,282,000
Net Available for Capital Purposes	2,774,588	496,938	1,290,261	1,290,261	3,855,349	7,007,497	663,078	417,851	563,808	791,815	949,999	1,081,774	1,318,551	1,318,551	17,939,986
Capital Plan	728,194	2,374,000	1,394,000	1,394,000	3,888,000	6,630,000	623,000	627,000	855,000	678,000	726,000	715,000	735,000	735,000	16,871,000
Cash Position															
Beginning balance	3,494,851	5,625,788	3,748,725	3,748,725	3,644,987	3,612,336	3,989,833	4,029,912	3,820,763	3,529,571	3,643,386	3,867,386	4,234,160	4,234,160	
ADD: Net available	2,774,588	496,938	1,290,261	1,290,261	3,855,349	7,007,497	663,078	417,851	563,808	791,815	949,999	1,081,774	1,318,551	1,318,551	
LESS: Planned Capital adjustment to cash flow	728,194	2,374,000	1,394,000	1,394,000	3,888,000	6,630,000	623,000	627,000	855,000	678,000	726,000	715,000	735,000	735,000	
Ending balance	5,625,788	3,748,725	3,644,987	3,644,987	3,612,336	3,989,833	4,029,912	3,820,763	3,529,571	3,643,386	3,867,386	4,234,160	4,817,711	4,817,711	

WATER RATES

(Per 100 Cubic Feet)

W-11 Class of Customer	Current FY12	Proposed FY13	%Chg.
1 & 2 Residential Service	(1 unit = 100 cubic feet = 748 gallons)		
1st Step: (all year)	\$ 4.10	\$ 4.24 **	3.4%
Conservation Step*: (25 - 48 units)	\$ 8.20	\$ 8.48	3.4%
Conservation Step*: (over 48 units)	\$ 10.25	\$ 10.60	3.4%
*May 1st through October 31st			
3 General Service			
1st Step: (all year)	\$ 4.10	\$ 4.24	3.4%
2nd Step: (all year) (over 50 units bimonthly)	\$ 5.21	\$ 5.39	3.5%
4 Municipal Service			
1st Step: (all year)	\$ 4.04	\$ 4.18	3.5%
Interruptible Outdoor Irrigation use			
5 Second Meter Service			
A. Irrigation/Pool or Accessory use:			
1st Step: (all year)	\$ 8.20	\$ 8.48	3.4%
Conservation Step: (over 48 units bimonthly, May 1st through October 31st)	\$ 10.25	\$ 10.60	3.4%
B. Non-Irrigation Commercial/Industrial			
	\$ 5.21	\$ 5.39	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>	\$ 369	\$ 382	\$ 12.60	\$ 1.05	3.4%
1b Large Summertime Residential Customer (40 units bimonthly during summer; 25 units bimonthly rest of year)	\$ 996	\$ 1,030	\$ 34.02	\$ 2.84	3.4%
1c Larger Summertime Residential Customer (60 units bimonthly during summer; 25 units bimonthly rest of year)	\$ 1,562	\$ 1,615	\$ 53.34	\$ 4.45	3.4%
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>	\$ 984	\$ 1,018	\$ 33.60	\$ 2.80	3.4%
3b Large Commercial Customer (5,000 units bimonthly)	\$155,967	\$ 161,355	\$ 5,388	\$ 449.00	3.5%
5a Small Municipal Customer (47 units bimonthly)	\$ 1,139	\$ 1,179	\$ 39	\$ 3.29	3.5%
5b Large Municipal Customer (600 units bimonthly)	\$ 14,544	\$ 15,048	\$ 504	\$ 42.00	3.5%

