

**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**

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**Water Fund Highlights**

- The proposed FY16 base level (Step 1) water rate of \$0.0477 per cubic foot is a 3.9% increase over the FY15 rate of \$0.0459 per cubic foot. Since FY 2007, water rates have increased by an average of 3.7% per year. For the average residential customer, the annual increase in the water bill will be \$16.20.
- The proposed FY16 capital investment plan is \$2.6m.
- Water Main Replacement: A budget allowance of \$1,140,000 in FY 2016 is proposed for replacement activities planned for the Hunters Ridge, Old Marlboro Road and Cambridge Turnpike neighborhoods.
- The proposed FY16 Operating Income is \$751,020 and Net Income is \$655,797.
- Borrowing request anticipated at April 2016 Annual Town Meeting: Nagog Pond Filtration Plant (\$6.6M), Nagog Intake structure (\$1.4m) rehabilitation of Annursnac Hill Reservoir (\$980K).

**Expenditure Summary**

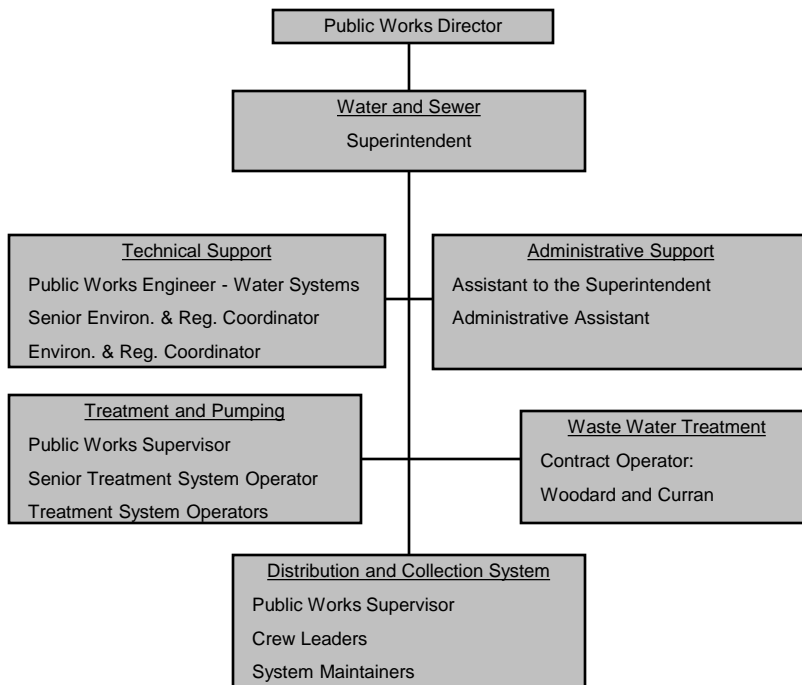
	FY13 Actual	FY14 Actual	FY15 Budget	FY16 Proposed
Operating Income	\$ 1,395,162	\$ 1,298,181	\$ 838,306	\$ 751,020
Net Income	\$ 1,248,140	\$ 1,156,429	\$ 714,273	\$ 655,797
Fund Balance	\$ 6,083,940	\$ 7,332,274	\$ 5,438,610	\$ 3,979,954

**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 2014, the total value of infrastructure assets was approximately \$19.4 million.

There are presently 5,518 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).



Southfield Road Water Main Project

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.

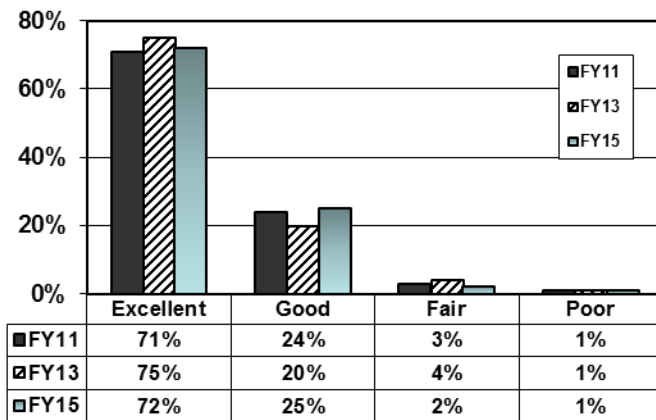
Since the Water Enterprise fund was formally established in 1974, there have been no property tax contributions requested to subsidize annual operations or maintenance of pre-existing infrastructure. Taxpayer contributions would only be sought for major system expansion projects or facility upgrades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

Town Residential Survey

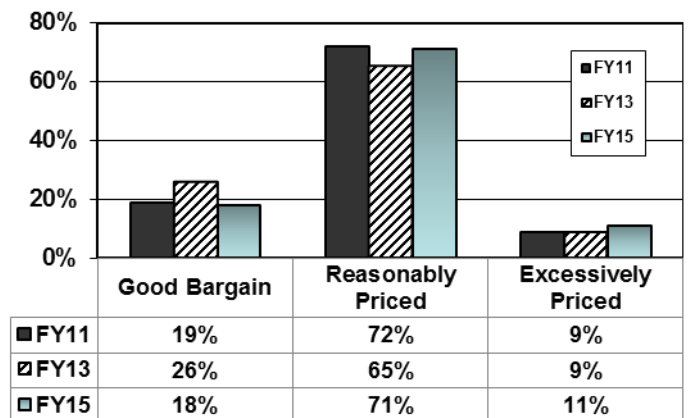
In the fall of 2010, and 2012 the Town conducted telephone surveys of 375 randomly selected Concord residents as part of the Town Residential Survey. In the fall of 2014 (FY15), the survey was expanded and received 1,337 respondents. For the Water Division, two questions were asked. Below left are the 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 (72%) thought that the quality is Excellent and another (25%) thought it is Good.

Below right are the results of the question, “What is your opinion of the price of water service?” In FY15, of those who said they use the service, 18% thought that the price is a Good Bargain and 71% thought that it is Reasonably Priced. From FY11 to FY15, 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 FY16 is \$4,648,000, which represents 97% 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**

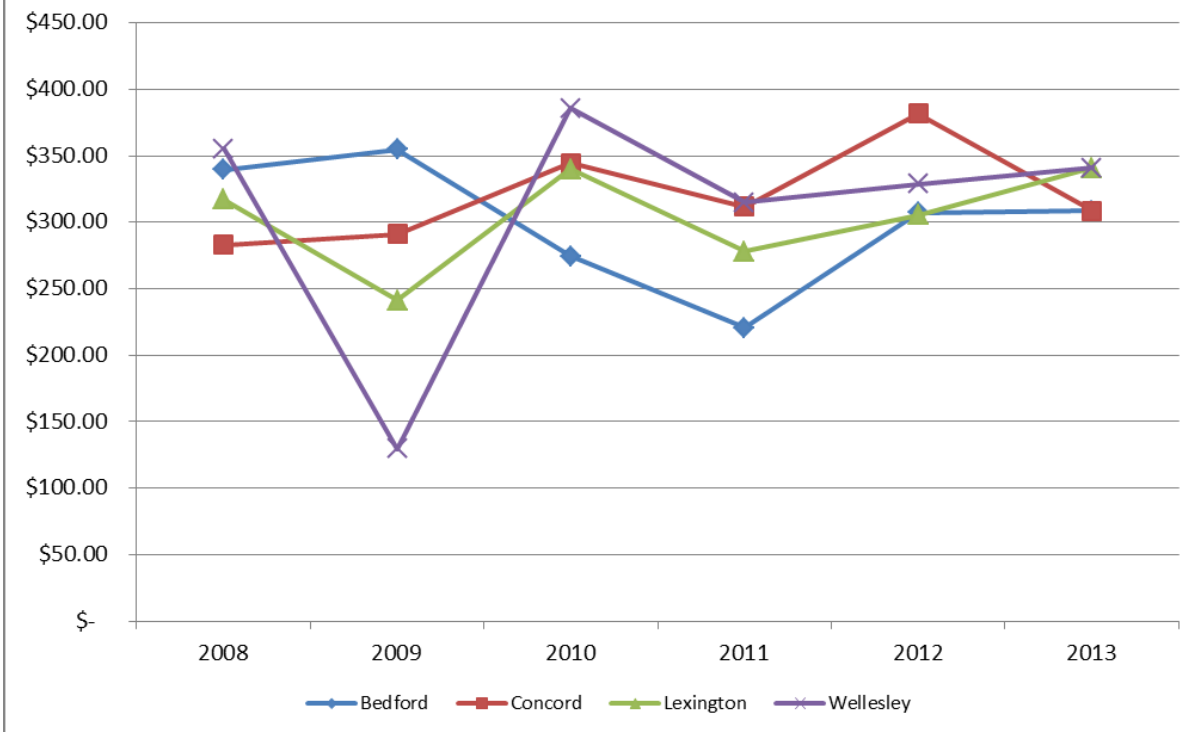
**The FY16 proposed Residential Service (step 1) water rate is \$0.0477 per cubic foot (1 cubic foot = 7.48 gallons)**

- The FY16 rate of \$0.0477 represents a 3.9% increase over the FY15 rate of \$0.0459. For the average residential customer, the annual increase in the water bill will be \$16.20.

- In FY16, the average residential customer is expected to pay a total of \$429 in water use over the course of the year. The average residential customer is assumed to use 1,500 cubic feet bimonthly. Customers who consume more than 2,400 cubic feet 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.

**Typical Annual Water User Fees Based on Actual Use**



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 6% of systems within Massachusetts which have adopted a seasonal ascending-block conservation rate structure. (From Tighe and Bond Survey, 2010)

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.

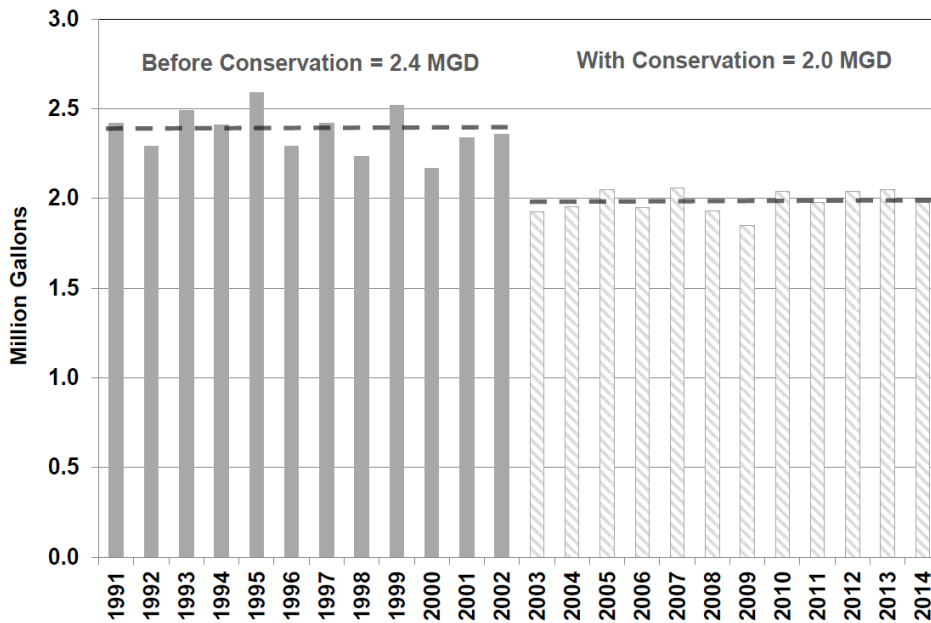
Regulatory Updates

In November of 2014, the State revised accompanying regulations to the Water Management Act, imposing rigorous demand management obligations on communities that have previously been issued permits for water withdrawal. Concord is one of these communities. While the financial impact of these regulations on public

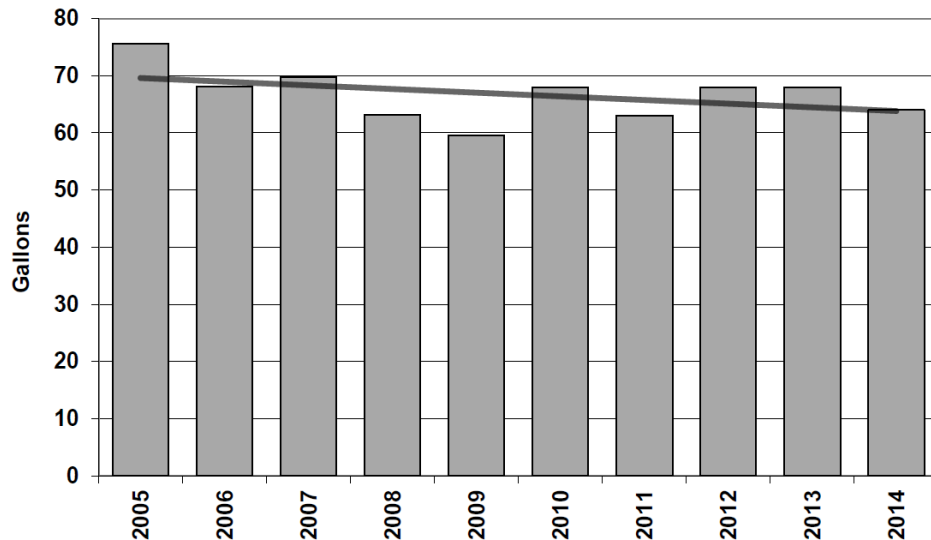
water suppliers has yet to be determined, it is expected that the new regulatory framework will require investments to be made in minimization and even mitigation of environmental impacts attributed to increased water supply withdrawals.

Concord Water is well ahead of the State when it comes to demand management (i.e. conservation) programs. In anticipation of increased sustainability, Concord has developed and updated its demand management program over the past several decades. The program has included the adoption of a strong conservation-based water rate structure, rebate programs to incentivize water-efficient residential appliances, the development of a Seasonal Water Demand Management Plan, and customized and evolving customer outreach messaging to increase water conservation awareness. The results of these efforts are clearly illustrated in the tables provided.

**Average Daily Water Demand - System**



**Average Daily Water Demand Per Person (Residential)**



Program Highlights (continued)**Nagog Pond Water Supply Master Plan:**

The use of Nagog Pond continues to be restricted to peak summer demand periods. Several years ago, the Public Works Commission determined that was in the Town's long term interest to evaluate the feasibility of installing water treatment that would allow for year round operation of this supply. Environmental Partners Group, Inc. (EPG) of Weymouth Massachusetts was hired to perform a treatment alternatives analysis followed by piloting of the more feasible technologies identified. In addition to this effort, they were also tasked to assess existing watershed management activities (with a goal of determining the highest and best practicable use of these lands); and to evaluate the 100-year-old drinking water intake line to determine if it requires rehabilitation or replacement.

Environmental Partners Group completed a two season (winter/summer) pilot study of preferred treatment technologies available for Nagog Pond. In conjunction with these pilot efforts, the Town hosted a full-scale demonstration pilot of a state-of-the-art ozone generation product offered by Pinnacle Ozone Solutions, LLC (Cocoa, FL). Pinnacle agreed to provide the Town with an ozone generator, at no cost, for an entire summer in exchange for allowing them to host tours of their equipment and share operational data with MassDEP. Such a demonstration is required to receive new technology approval by the State.

Based on the successful outcome of the piloting activities noted above, EPG has already been instructed to begin to work on the development of a preliminary design of the full scale treatment facility. The plant will include conventional coagulant/flocculation treatment followed by dissolved air flotation and dual-media filtration. EPG has also agreed to develop a preliminary design of a new Nagog Pond intake structure, to replace the 100 year old intake structure which has served its useful life. Their efforts will identify and refine construction and permitting costs, which will ultimately be brought forward for Town Meeting authorization, prior to moving forward with this important capital improvement effort. Based on information available today, these improvements will required a borrowing of more than \$8 million, expected at the 2016 Annual Town Meeting.

**Nagog Pond: Water Treatment Pilot Study**

Program Highlights (continued)

**Water Testing:** All routine and non-routine water quality testing activities are performed in accordance with Massachusetts Department of Environmental Protection regulations. Testing continues to demonstrate that the drinking water provided to customers satisfies State and Federal requirements for public water systems. A summary of the water quality test results is available on the Town website.

**Lead and Copper Program** –In accordance with the federal Lead and Copper Rule (LCR or 1991 Rule) Concord sampled 30 designated sample sites located throughout the water distribution system along with two (2) schools. Findings demonstrated that our water conditioning continues to be effective in mitigating corrosion of private plumbing fixtures.

**Manganese:** The Massachusetts Department of Environmental Protection (MassDEP) announced a new initiative to raise awareness regarding manganese in public drinking water. Recent studies have identified that public health risks may exist when manganese is ingested at elevated levels, especially among infants and young children. These same studies suggest that, in some cases, the concentration of manganese in drinking water can represent a significant contribution to an individual's daily intake. Concord's water supplies are routinely tested for manganese with finished water results consistently showing concentrations well below all health advisory levels.

**Cross-Connection Control Program:** Water Safety Services (Woburn MA) continued to perform routine inspection and testing of all cross-connection control devices installed within industrial and commercial facilities that require "process" water that is connected directly to the municipal water system. These efforts protect all customers from potential contamination risks associated with a back-flow of water that has been tainted by industrial/commercial processes which may render the water undrinkable.

**Deaconess Satellite Well:** Denis L. Maher Company (Ayer, MA) performed an inspection and service of the Deaconess Satellite well when it failed during peak water demand season. During the inspection, it was learned that the outer shell of the 50 HP motor casing had been severely corroded,. Due to the extent of the damage, Layne Christensen (Dracut MA) was awarded a contract to change out the pump and motor.

**White Pond Well - Pump Rehabilitation:** Layne Christensen (Dracut, MA) was called in to perform an emergency inspection of the White Pond well when it was learned that the impeller shaft had seized. The pump and motor were pulled and the well cleaned. Due to an unusually significant amount of iron encrustation observed on both the pump and well casing, both required refurbishing. The stuffing box and bushing on the pump were replaced along with a 40-foot length of the 8-inch diameter discharge column. The pump impeller skirts and bowl castings were also refurbished.

**Mains (New/Replacement):** Southfield and Riverdale Neighborhood - Onyx Corp (Acton, MA) installed 7,400 ft. of new water main in the Southfield-Riverdale neighborhood. The work involved the replacement of existing 8-inch AC pipe with 8-inch ductile iron pipe and replacement of individual water services from the water main to the property line. Work was performed along the following streets: Southfield Road, Southfield Circle, Dana Road, Garden Road, Pilgrim Road, Riverdale Circle, and Riverdale Road.

**Water/Sewer Bill - New Format:** As water conservation becomes increasingly important to everyone, we recognize that our customers want better information about water use so that they can reduce water consumption and lower their costs. To assist in this effort, since August of 2013, the Division has been installing meters that register use in cubic feet, instead of hundreds of cubic feet. This increased sensitivity will make it easier for a customer to identify and eliminate chronic leaks that are not only wasteful but costly. As part of this program, we have standardized water billing for all our customers to display their use in "cubic feet" instead of "hundreds of cubic feet", as shown on previous bills.

**Program Implementation**

The proposed FY16 budget provides for an operating income of \$751,020 and a net income of \$655,797.

Depreciation expense reflects the cost imposed by the annual use, or wear-and-tear, of the Water Division's approximately \$19.4 million worth of infrastructure (as of the end of FY14). The budgeted depreciation expense, totaling \$1,056,237, represents a depreciation of roughly 5% of these capital assets in FY16.

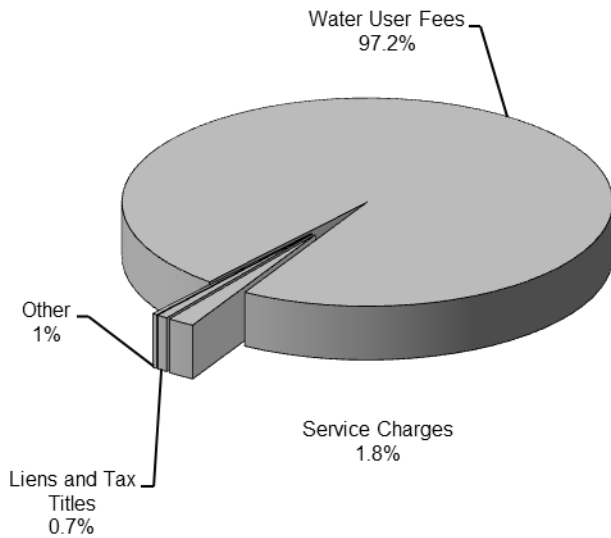
Personnel Services are budgeted to total \$1,247,436 in FY16, a 5% increase from the revised FY15 total of \$1,187,483. There is no change in staffing or overtime hours.

The next largest expense categories are for electricity (\$321,300) and chemicals (\$202,535); these consumables 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.

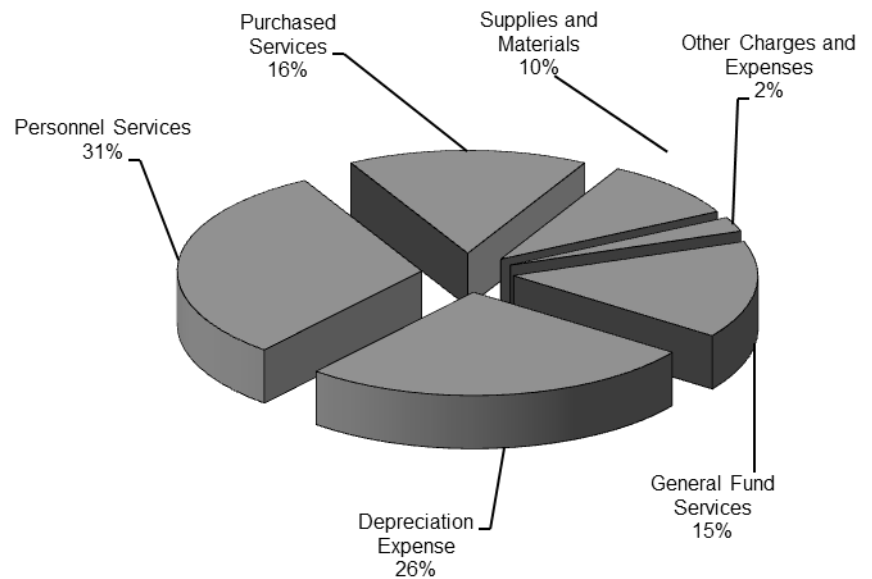
The FY16 Budget also includes \$48,170 for water quality testing at 7 pumping stations, 2 reservoirs and throughout the distribution system.

In addition, the FY16 budget includes \$68,100 for inspection services, including leak detection covering half of the entire system (the entire system is checked every two years) and testing of backflow prevention devices at commercial facilities. The budget also includes \$39,111 for electrical, instrumentation and other maintenance and support services at the pumping stations and reservoirs.

**FY16 Operating Revenues**  
Totaling \$4,782,000



**FY16 Operating Expenditures**  
Totaling \$4,030,980



**OPERATING REVENUES**

	FY13 Actual	FY14 Actual	Rev. FY15 Budget	FY16 Budget
Water User Fees	\$ 4,416,583	\$ 4,508,519	\$ 4,471,000	\$ 4,648,000
Service Charges	92,280	73,777	94,000	85,000
Liens and Tax Titles	33,722	33,190	34,000	34,000
Other	11,838	38,722	11,000	15,000
<b>Operating Revenues Total</b>	<b>\$ 4,554,423</b>	<b>\$ 4,654,208</b>	<b>\$ 4,610,000</b>	<b>\$ 4,782,000</b>

**OPERATING EXPENSES**

	FY13 Actual	FY14 Actual	Rev. FY15 Budget	FY16 Budget
<b><u>Personnel Services</u></b>				
Personnel Expenses	\$ 1,024,508	\$ 1,102,547	\$ 1,187,483	\$ 1,247,436
Retirement Adjustment				
Audit Adjustment	16,972		-	-
<b>Subtotal</b>	<b>\$ 1,041,480</b>	<b>\$ 1,102,547</b>	<b>\$ 1,187,483</b>	<b>\$ 1,247,436</b>
<b><u>Non-Personnel Services</u></b>				
Purchased Services	425,265	460,736	590,701	640,738
Supplies & Materials	344,953	344,121	387,718	378,908
Other Charges & Expenses	60,451	84,345	92,722	92,420
Audit Adjustment	(46,883)	(4,927)	-	-
<b>Subtotal</b>	<b>\$ 783,786</b>	<b>\$ 884,275</b>	<b>\$ 1,071,141</b>	<b>\$ 1,112,066</b>
<b><u>Other</u></b>				
General Fund Services	555,471	584,315	600,507	615,241
Depreciation Expense	778,524	784,890	912,563	1,056,237
<b>Subtotal</b>	<b>\$ 1,333,995</b>	<b>\$ 1,369,205</b>	<b>\$ 1,513,070</b>	<b>\$ 1,671,478</b>
<b>Total Operating Expense</b>	<b>\$ 3,159,261</b>	<b>\$ 3,356,027</b>	<b>\$ 3,771,694</b>	<b>\$ 4,030,980</b>

**RETIREMENT AND OPEB ASSESSMENT**

<i>For Informational Purposes Only</i>				
	FY13 Actual	FY14 Actual	Rev. FY15 Budget	FY16 Budget
<b><u>Personnel Services</u></b>				
Retirement Assessment	\$ 36,158	\$ 62,590	\$ 64,305	\$ 72,280
OPEB Assessment	18,175	16,402	17,000	18,000
<b>Total Assessment</b>	<b>\$ 54,333</b>	<b>\$ 78,992</b>	<b>\$ 81,305</b>	<b>\$ 90,280</b>



**AUTHORIZED POSITIONS**

<b>Regular Staff</b>	FY15 Revised Budget		FY16 Initial Budget	
	\$ Amount	Position/Hours	\$ Amount	Position/Hours
Water and Sewer Superintendent	\$ 86,600	0.80 FTEs	\$ 86,600	0.80 FTEs
Public Works Engineer	14,500	0.20	14,521	0.20
Assistant to Superintendent	68,654	0.80	68,564	0.80
Sr. Environ. & Regulatory. Coord.	62,583	0.80	62,494	0.80
Environ. & Regulatory. Coord.	41,208	0.80	41,208	0.80
Administrative Assistant	49,340	0.80	50,434	0.80
Public Works Supervisor	130,611	1.60	133,846	1.60
Crew Leader	109,551	1.60	112,258	1.60
Senior Treatment Systems Operator	53,854	0.80	55,194	0.80
Treatment System Operator	90,280	1.60	95,131	1.60
System Maintainer	200,188	4.00	204,123	4.00
Standby Pay (5111)	14,270	0.17	14,622	0.17
Charges to Snow Account	(4,328)	-0.08	(4,328)	-0.08
Charges to Capital Projects	(19,290)	N/A	(19,297)	0
Vacancy Savings	-	0	-	0
Salary Adjustments	-	-	20,509	-
<b>Subtotal</b>	<b>\$ 898,021</b>	<b>13.89 FTEs</b>	<b>\$ 935,879</b>	<b>13.89 FTEs</b>
<b>5120</b>				
Watershed Patrol	\$ -	0 hrs.	\$ 4,600	460 hrs.
Environmental Technology Intern	5,200	520 hrs.	-	0 hrs.
GIS Project Specialist	2,156	112 hrs.	4,160	208 hrs.
<b>Subtotal</b>	<b>\$ 7,356</b>	<b>0.30 FTEs</b>	<b>\$ 8,760</b>	<b>0.32 FTEs</b>
<b>Employee Benefits</b>				
Health Insurance	\$ 75,000	N/A	\$ 81,000	N/A
Life Insurance	-	N/A	-	N/A
Dental Insurance	-	N/A	-	N/A
Retirement Contribution	64,305	N/A	72,280	N/A
OPEB Contribution	17,000	N/A	18,000	N/A
<b>Subtotal</b>	<b>\$ 156,305</b>	<b>N/A</b>	<b>\$ 171,280</b>	<b>N/A</b>
<b>Payroll Taxes</b>				
Medicare Tax	\$ 9,700	N/A	\$ 11,500	N/A
Social Security Contribution	1,800	N/A	1,500	N/A
<b>Subtotal</b>	<b>\$ 11,500</b>	<b>N/A</b>	<b>\$ 13,000</b>	<b>N/A</b>
<b>Other Personnel Costs</b>				
Overtime (5130)	\$ 92,877	1900 hrs.	\$ 95,190	1900 hrs.
Overtime Adjustments (5130)	-	N/A	1,428	N/A
Police Overtime (5131)	7,400	185 hrs.	7,400	185 hrs.
Mobile Phone Allowance	3,456	N/A	3,840	N/A
IT Salary (5111)	10,568	N/A	10,659	N/A
<b>Subtotal</b>	<b>\$ 114,301</b>	<b>N/A</b>	<b>\$ 118,517</b>	<b>N/A</b>
<b>Total Personnel Costs</b>	<b>\$ 1,187,483</b>	<b>14.20 FTEs</b>	<b>\$ 1,247,436</b>	<b>14.21 FTEs</b>

**NET INCOME**

	FY13 Actual	FY14 Actual	Rev. FY15 Budget	FY16 Budget
<b>Statement of Net Income:</b>				
Operating Revenues	\$ 4,554,423	\$ 4,654,208	\$ 4,610,000	\$ 4,782,000
Less Operating Expenses	(3,159,261)	(3,356,027)	(3,771,694)	(4,030,980)
<b>Operating Income</b>	<b>\$ 1,395,162</b>	<b>\$ 1,298,181</b>	<b>\$ 838,306</b>	<b>\$ 751,020</b>
<b>Nonoperating Revenues (Expenses)</b>				
Add Investment Income	\$ 14,025	\$ 14,393	\$ 29,111	\$ 41,458
Add Other Revenue/Expense	\$ 11,820			
Less Interest Expense	(172,867)	(156,145)	(153,144)	(136,681)
Issuance Expense	-	-	-	-
<b>Nonoperating Income</b>	<b>\$ (147,022)</b>	<b>\$ (141,752)</b>	<b>\$ (124,033)</b>	<b>\$ (95,223)</b>
<b>Net Income</b>	<b>\$ 1,248,140</b>	<b>\$ 1,156,429</b>	<b>\$ 714,273</b>	<b>\$ 655,797</b>

**AVAILABLE RESOURCES**

<b>Resources Available from Current Operations for Replacement &amp; Renewal of Facility:</b>				
	FY13 Actual	FY14 Actual	Rev. FY14 Budget	FY15 Budget
<b>Capital Purposes</b>				
Add Depreciation Expense	\$ 778,524	\$ 784,890	\$ 912,563	\$ 1,056,237
Add Net Income	1,248,140	1,156,429	714,273	655,797
Add Debt Financing	400,000	-	-	-
Less Bonds Payable	(470,000)	(520,000)	(520,000)	(520,000)
<b>Net Available for Capital</b>	<b>\$ 1,956,664</b>	<b>\$ 1,421,319</b>	<b>\$ 1,106,836</b>	<b>\$ 1,192,034</b>

**CASH POSITION AND FUND BALANCE FORECAST**

<b>Cash at Year Opening</b>	<b>FY15</b>		<b>FY16</b>	
	Operating Fund	Depreciation Fund	Operating Fund	Depreciation Fund
<b>Cash on July 1st</b>	\$ 6,769,113		\$ 4,875,449	
Add Receivables	777,463		777,463	
Add Inventory & Other Assets	150,330		150,330	
Less Cash held for Liabilities	(364,632)		(364,632)	
<b>Fund Balance on July 1st</b>	<b>\$ 7,332,274</b>		<b>\$ 5,438,610</b>	
<b>Fund Balance Details (projected)</b>	Operating Fund	Depreciation Fund	Operating Fund	Depreciation Fund
Fund Balance on July 1st	\$ 4,169,536	\$ 3,162,738	\$ 4,363,809	\$ 1,074,801
Net Income	714,273	-	655,797	-
Borrowing Proceeds (Repayment)	(520,000)	-	(520,000)	-
User Fee Supported Capital Outlay	-	(2,685,316)	-	(2,650,690)
Borrowing Supported Capital	-	(315,184)	-	-
Add Depreciation Exp./Capital Rsv.	-	912,563	-	1,056,237
Balance Projected at June 30th	4,363,809	1,074,801	4,499,606	(519,652)
<b>Fund Balance on June 30th</b>	<b>\$ 5,438,610</b>		<b>\$ 3,979,954</b>	
<b>Cash at Year End (projected)</b>				
Fund Balance on June 30th	\$ 5,438,610		\$ 3,979,954	
Less Receivables	(777,463)		(777,463)	
Less Inventory & Other Assets	(150,330)		(150,330)	
Add Unspent Borrowing	-		-	
Add Cash Held for Liabilities	364,632		364,632	
<b>Projected Cash at June 30th</b>	<b>\$ 4,875,449</b>		<b>\$ 3,416,793</b>	

**DEBT SERVICE**

	FY13		FY14		Rev. FY15		FY16	
<b>Long-Term Debt Repayment</b>	Actual		Actual		Budget		Budget	
Principal	\$	470,000	\$	520,000	\$	520,000	\$	520,000
Interest		172,867		156,145		153,144		136,681
Debt Issuance Expense		-		-		-		-
<b>Total</b>	<b>\$</b>	<b>642,867</b>	<b>\$</b>	<b>676,145</b>	<b>\$</b>	<b>673,144</b>	<b>\$</b>	<b>656,681</b>

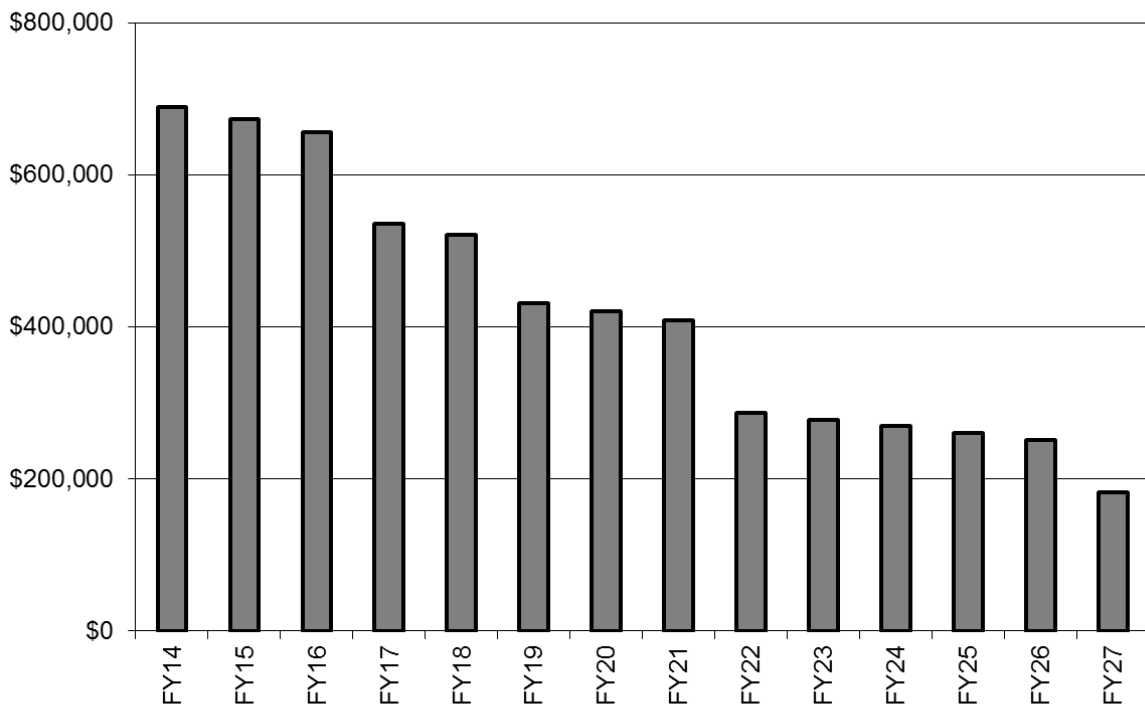
**PAYMENTS TO THE GENERAL FUND**

	FY13		FY14		Rev. FY15		FY16	
	Actual		Actual		Budget		Budget	
<b><u>Management &amp; Engineering</u></b>								
Highway Maintenance	\$	17,192	\$	17,872	\$	18,507	\$	18,652
133/135 Keyes Road		49,168		48,121		48,807		49,635
Public Works Engineering		69,727		83,824		86,086		85,451
Public Works Administration		82,579		85,208		86,808		86,350
<b>Subtotal</b>	<b>\$</b>	<b>218,666</b>	<b>\$</b>	<b>235,025</b>	<b>\$</b>	<b>240,208</b>	<b>\$</b>	<b>240,088</b>
<b><u>Finance &amp; Administrative</u></b>								
Town Manager	\$	57,616	\$	58,605	\$	60,925	\$	57,041
Human Resources		16,979		17,422		17,587		18,234
Town Accountant								
Accounting Services		47,661		49,612		49,262		48,133
Audit Services		6,000		6,000		6,000		6,840
Treasurer-Collector		49,876		51,099		51,963		52,638
Finance Administration		67,498		70,922		72,952		73,560
Town House Facility		6,891		6,725		6,734		6,630
<b>Subtotal</b>	<b>\$</b>	<b>252,521</b>	<b>\$</b>	<b>260,385</b>	<b>\$</b>	<b>265,423</b>	<b>\$</b>	<b>263,076</b>
<b><u>Natural Resources</u></b>								
Planning Administration	\$	36,740	\$	39,181	\$	42,502	\$	43,077
Natural Resource Protection		23,462		24,128		25,065		25,255
Health Department Services		24,082		25,596		27,309		27,685
<b>Subtotal</b>	<b>\$</b>	<b>84,284</b>	<b>\$</b>	<b>88,905</b>	<b>\$</b>	<b>94,876</b>	<b>\$</b>	<b>96,017</b>
Salary Reserve		-		-		-		16,060
Audit Adjustments		-		-		-		-
<b>Totals</b>	<b>\$</b>	<b>555,471</b>	<b>\$</b>	<b>584,315</b>	<b>\$</b>	<b>600,507</b>	<b>\$</b>	<b>615,241</b>

**DEBT SERVICE SCHEDULE**

(Issued through 6/30/2014)

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
FY14	520,000	169,327	689,327
FY15	520,000	153,144	673,144
FY16	520,000	136,681	656,681
FY17	420,000	115,706	535,706
FY18	420,000	101,388	521,388
FY19	345,000	86,213	431,213
FY20	345,000	75,050	420,050
FY21	345,000	63,450	408,450
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>
<b>Totals</b>	<b>\$ 5,255,000</b>	<b>\$ 1,256,603</b>	<b>\$ 6,511,603</b>



DISTRIBUTION SYSTEM

**Mains (New/Replacement): \$1,140,000** - 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 diameter. The replacement/rehabilitation program is designed to replace aging and deteriorating main in a methodical and prudent manner. The plan of work for FY16 includes the replacement of over 4,000 feet of water main along Hunters Ridge Road and a section of Old Marlboro Road (west of the Peabody Middle School).

**Water Meter Replacement Program: \$96,000** - Water Fund portion of costs associated with system-wide meter maintenance and replacement efforts. Efforts will include advancement of smart water meter technology to allow for increased customer awareness of individual water consumption patterns and water saving opportunities.

**Hydrants: \$36,000** - 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: \$195,000** - Annual capital outlay for improvements and replacement of station structures. Planned work includes rehabilitation of one of the nine groundwater wells and replacement of the Second Division Well bulk storage system (project had been deferred from FY15 when it was determined replacement would require building addition).

**Pumping Station Equipment: \$46,000** - 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.

TREATMENT

**Nagog Treatment Plant: \$948,000** – Final design of the Nagog Pond treatment facility including procurement of new ozone equipment. The existing ozone system is no longer suitably reliable and should be replaced prior to the peak summer demand period anticipated in 2016. The final treatment plant design is necessary to update the Town as to the construction and operating expenses of a facility that would comply with EPA's surface water treatment rule.

GENERAL PLANT

**Keyes Road Facility: \$26,000** - Capital outlay for improvements to Water/Sewer administrative office and garage facilities.

**Vehicles: \$81,600** – The 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. Planned improvements include the replacement of two standard service vehicles and a portable vacuum/trailer unit.

**Miscellaneous Equipment: \$10,000** - 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										
	Actual FY13	Actual FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total FY16-20	
<b><u>Distribution System</u></b>										
Water Mains	33,103	0	1,805,000	1,140,000	50,000	1,000,000	50,000	1,000,000	3,240,000	
Meter Replacements	28,627	29,008	163,000	96,000	102,000	93,000	102,000	113,000	506,000	
Hydrants	9,834	26,370	35,000	36,000	37,000	38,000	39,000	40,000	190,000	
<b>Subtotal</b>	<b>71,564</b>	<b>55,378</b>	<b>2,003,000</b>	<b>1,272,000</b>	<b>189,000</b>	<b>1,131,000</b>	<b>191,000</b>	<b>1,153,000</b>	<b>3,936,000</b>	
<b><u>Pumping Stations/Treatment</u></b>										
Structures	124,246	0	80,000	195,000	50,000	52,000	54,000	56,000	407,000	
Equipment	33,124	47,518	75,000	46,000	47,000	48,000	49,000	50,000	240,000	
Reservoir Improvements	0	0	100,000	30,000	825,000	155,000			1,010,000	
Nagog Improvements	106,254	193,242	166,816	948,000					948,000	
Route 2A Station and Filtration	83,571	0	100,475	0	6,585,000				6,585,000	
Dam Reconstruction	505,776	2,709							0	
Nagog Intake	37,191	45,781	212,000	0	1,400,000				1,400,000	
<b>Subtotal</b>	<b>890,161</b>	<b>286,540</b>	<b>737,000</b>	<b>1,219,000</b>	<b>8,907,000</b>	<b>255,000</b>	<b>103,000</b>	<b>106,000</b>	<b>10,590,000</b>	
<b><u>General Plant</u></b>										
Keyes Road CPW Facility	21,392	191	115,000	26,000	27,000	28,000	500,000	28,000	609,000	
GIS	0	0	24,000	10,000	10,000	10,000	10,000	10,000	50,000	
Vehicles	49,207	69,335	80,000	81,600	116,800	106,100	79,200	40,000	423,700	
Miscellaneous Equipment	0	14,717	10,000	10,000	10,000	10,000	10,000	10,000	50,000	
Depreciable Personnel Services	16,972	16,547	19,500	20,090	20,690	21,310	21,950	22,610	106,650	
<b>Subtotal</b>	<b>87,571</b>	<b>100,790</b>	<b>248,500</b>	<b>147,690</b>	<b>184,490</b>	<b>175,410</b>	<b>621,150</b>	<b>110,610</b>	<b>1,239,350</b>	
<b><u>Supply and Capacity</u></b>										
Source Protection	1,454	0	12,000	12,000	12,000	12,000	12,000	12,000	60,000	
<b>Subtotal</b>	<b>1,454</b>	<b>0</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>12,000</b>	<b>60,000</b>	
<b>Total Capital Uses</b>	<b>1,050,749</b>	<b>442,708</b>	<b>3,000,500</b>	<b>2,650,690</b>	<b>9,292,490</b>	<b>1,573,410</b>	<b>927,150</b>	<b>1,381,610</b>	<b>15,825,350</b>	
<b><u>Funding the Capital Plan</u></b>										
From Debt	626,538	45,781	315,184	30,000	8,965,000		500,000	-	9,495,000	
From Water Fund Resources	424,212	396,928	2,685,316	2,620,690	327,490	1,573,410	427,150	1,381,610	6,330,350	
<b>Total Capital Sources</b>	<b>1,050,749</b>	<b>442,708</b>	<b>3,000,500</b>	<b>2,650,690</b>	<b>9,292,490</b>	<b>1,573,410</b>	<b>927,150</b>	<b>1,381,610</b>	<b>15,825,350</b>	

Water Fund: Plan and Projection	ACTUAL		Actual	FY 2013 - FY 2025										10 years			
	FY 2013	FY 2014		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2025	FY 16-25	
<b>Operating Revenue</b>																	
User Fees	4,416,583	4,508,519	4,471,000	4,648,000	4,848,000	5,023,000	5,207,000	5,391,000	5,583,000	5,783,000	5,993,000	6,210,000	6,435,000	6,435,000	55,121,000		
Other	137,840	145,689	139,000	134,000	135,000	136,000	137,000	138,000	139,000	140,000	141,000	142,000	143,000	143,000	1,385,000		
Subtotal	4,554,423	4,654,208	4,610,000	4,782,000	4,983,000	5,159,000	5,344,000	5,529,000	5,722,000	5,923,000	6,134,000	6,352,000	6,578,000	6,578,000	56,506,000		
<b>Operating Expense</b>																	
O & M	2,389,855	2,571,137	2,859,131	2,974,743	3,214,705	3,311,917	3,412,099	3,515,344	3,621,748	3,731,410	3,844,433	3,960,922	4,080,987	4,080,987	35,668,307		
Depreciation	778,524	784,890	912,563	1,056,237	1,256,508	1,416,227	1,472,714	1,453,037	1,421,176	1,436,206	1,449,277	1,450,593	1,463,742	1,463,742	13,875,717		
Subtotal	3,168,379	3,356,027	3,771,694	4,030,980	4,471,213	4,728,143	4,884,813	4,968,381	5,042,924	5,167,616	5,293,710	5,411,515	5,544,728	5,544,728	49,544,024		
<b>Operating Income</b>	1,386,044	1,298,181	838,306	751,020	511,787	430,857	459,187	560,619	679,076	755,384	840,290	940,485	1,033,272	1,033,272	6,961,976		
ADD: Interest Income	14,025	14,393	29,111	41,458	68,206	105,248	125,633	121,535	115,404	123,487	136,731	153,690	174,574	174,574	1,165,966		
Miscellaneous Non-Operating Income	11,820	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
LESS: Interest Expense	172,867	156,145	153,144	136,681	115,706	101,388	86,213	75,050	63,450	51,850	43,050	34,250	25,300	25,300	732,938		
Existing Debt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,767,088		
Future Debt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109,606		
Bond Anticipation Notes (BANs)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104,115		
Issuance expense (Premium)	0	0	0	0	8,965	89,650	500	5,000	0	0	0	0	0	0	0		
<b>Net Income</b>	1,239,023	1,156,429	714,273	655,797	455,322	244,211	49,857	167,516	302,605	423,508	555,370	706,237	853,771	853,771	4,414,195		
<b>Available Resources from:</b>																	
Net income	1,239,023	1,156,429	714,273	655,797	455,322	244,211	49,857	167,516	302,605	423,508	555,370	706,237	853,771	853,771	4,414,195		
Depreciation expense	778,524	784,890	912,563	1,056,237	1,256,508	1,416,227	1,472,714	1,453,037	1,421,176	1,436,206	1,449,277	1,450,593	1,463,742	1,463,742	13,875,717		
subtotal	2,017,547	1,941,319	1,626,836	1,712,034	1,711,830	1,660,437	1,522,572	1,620,553	1,723,781	1,859,714	2,004,648	2,156,831	2,317,512	2,317,512	18,289,912		
Bond proceeds	400,000	400,000	0	0	0	8,965,000	500,000	500,000	0	0	0	0	0	0	9,465,000		
Loan proceeds	0	0	0	0	8,965,000	0	0	0	0	0	0	0	0	0	9,465,000		
LESS: Principal repayments	470,000	520,000	520,000	520,000	420,000	420,000	345,000	345,000	345,000	235,000	235,000	235,000	235,000	235,000	3,335,000		
Existing Debt	0	0	0	0	0	0	448,250	448,250	498,250	498,250	498,250	498,250	498,250	498,250	3,387,750		
New Debt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
BAN Repayment	0	0	0	0	0	8,965,000	0	0	0	0	0	0	0	0	0		
<b>Net Available for Capital Purposes</b>	1,947,547	1,421,319	1,106,836	1,192,034	10,256,830	1,240,437	1,229,322	827,303	880,531	1,126,464	1,271,398	1,423,581	1,584,262	1,584,262	21,032,162		
<b>Capital Plan</b>	1,064,316	442,708	3,000,500	2,650,690	9,292,490	1,573,410	927,150	1,381,610	707,290	726,990	747,710	769,450	791,210	791,210	19,568,000		
<b>Cash Position</b>																	
Beginning balance	5,167,220	5,858,743	6,769,113	4,875,449	3,416,793	4,381,133	4,048,160	4,350,332	3,796,025	3,969,266	4,368,741	4,892,428	5,546,559	5,546,559			
ADD: Net available	1,947,547	1,421,319	1,106,836	1,192,034	10,256,830	1,240,437	1,229,322	827,303	880,531	1,126,464	1,271,398	1,423,581	1,584,262	1,584,262			
LESS: Planned Capital	1,064,316	442,708	3,000,500	2,650,690	9,292,490	1,573,410	927,150	1,381,610	707,290	726,990	747,710	769,450	791,210	791,210			
Auditor's Adj.Changes in assets & liab.	200,825	68,241	0	0	0	0	0	0	0	0	0	0	0	0			
Ending balance	5,849,626	6,769,113	4,875,449	3,416,793	4,381,133	4,048,160	4,350,332	3,796,025	3,969,266	4,368,741	4,892,428	5,546,559	6,339,611	6,339,611			
ending fund balance	6,353,664	6,769,113	4,875,449	3,416,793	4,381,133	4,048,160	4,350,332	3,796,025	3,969,266	4,368,741	4,892,428	5,546,559	6,339,611	6,339,611			

**WATER RATES**

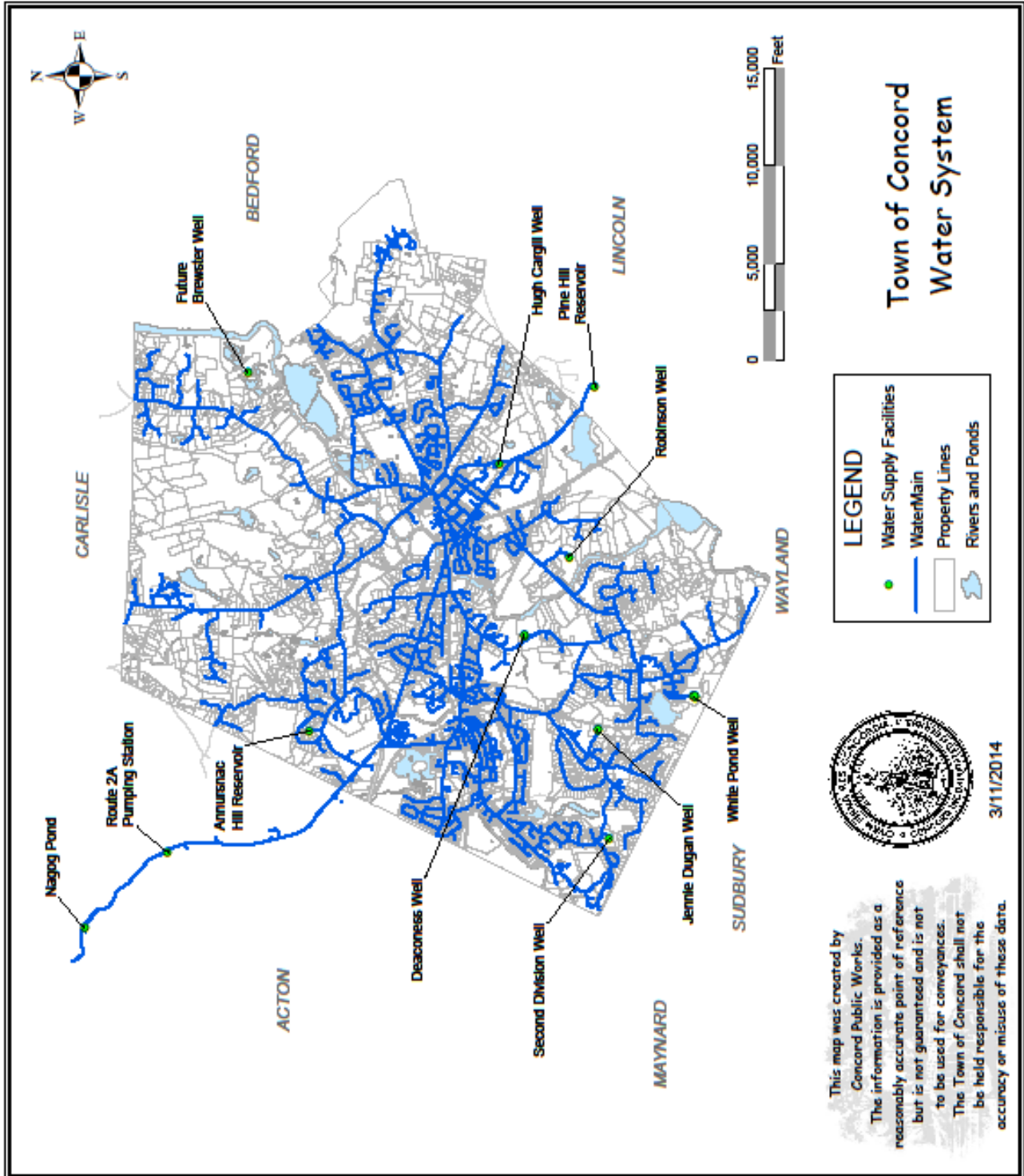
(Per Cubic Foot)

<b>W-15 Class of Customer</b>	<b>Current FY15</b>	<b>Effective 6/1/15</b>	<b>%Chg.</b>
<b>1 &amp; 2 Residential Service</b>	(1 cubic feet = 7.48 gallons)		
1st Step: (all year)	\$ 0.0459	\$ 0.0477 **	3.9%
Conservation Step*: (25 - 48 units)	\$ 0.0918	\$ 0.0954	3.9%
Conservation Step*: (over 48 units)	\$ 0.1148	\$ 0.1193	3.9%
*May 1st through October 31st			
<b>3 General Service</b>			
1st Step: (all year)	\$ 0.0459	\$ 0.0477	3.9%
2nd Step: (all year) (over 50 units bimonthly)	\$ 0.0583	\$ 0.0606	3.9%
<b>4 Municipal Service</b>			
1st Step: (all year)	\$ 0.0452	\$ 0.0470	4.0%
Interruptible Outdoor Irrigation use			
<b>5 Second Meter Service</b>			
A. Irrigation/Pool or Accessory use:			
1st Step: (all year)	\$ 0.0918	\$ 0.0954	3.9%
Conservation Step: (over 48 units bimonthly, May 1st through October 31st)	\$ 0.1148	\$ 0.1193	3.9%
B. Non-Irrigation Commercial/Industrial			
	\$ 0.0583	\$ 0.0606	3.9%

\*\*A 50% discount on Step 1 water consumption, up to a maximum of 2,400 cubic feet in a bimonthly billing period, is provided for customers of record who meet certain age and income eligibility criteria.

<b>Sample Impacts</b>	<b>Current Annual</b>	<b>New Annual</b>	<b>Annual Change</b>	<b>Monthly Change</b>	<b>% Chg.</b>
<b>1a Average Residential Customer</b> (1,500 cu ft bimonthly) <i>Approximately two-thirds of residential customers normally use less than the Conservation step threshold.</i>	\$ 413	\$ 429	\$ 16.20	\$ 1.35	3.9%
<b>1b Large Summertime Residential Customer</b> (4,000 cu ft bimonthly during summer; 2,500 cu ft bimonthly rest of year)	\$ 1,115	\$ 1,159	\$ 43.74	\$ 3.65	3.9%
<b>3a Small Commercial Customer</b> (2,500 cu ft bimonthly) <i>Approximately two-thirds of commercial/institutional/Gov't customers normally use less than than the 2nd step threshold.</i>	\$ 689	\$ 716	\$ 27.00	\$ 2.25	3.9%
<b>3b Large Commercial Customer</b> (30,000 cu ft bimonthly)	\$ 10,122	\$ 10,521	\$ 399	\$ 33.25	3.9%
<b>5a Small Municipal Customer</b> (4,500 cu ft bimonthly)	\$ 1,220	\$ 1,269	\$ 49	\$ 4.05	4.0%
<b>5b Large Municipal Customer</b> (60,000 cu ft bimonthly)	\$ 16,272	\$ 16,920	\$ 648	\$ 54.00	4.0%





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