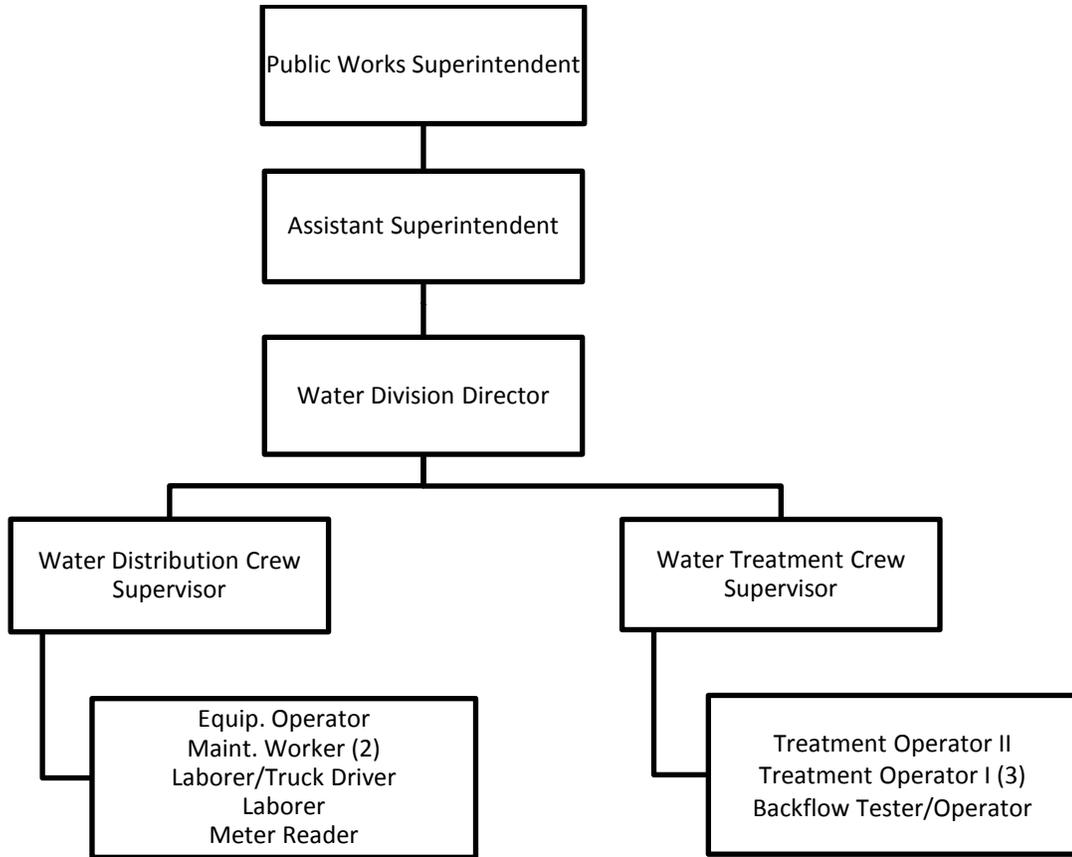


**WATER  
FUND**

# WATER FUND

**MISSION STATEMENT:** To develop, treat and distribute high quality water to meet the needs of Amherst residents, businesses, and institutions through a user fee based revenue system.



## WATER FUND SUMMARY

		FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Operating Revenues	\$	4,079,174	4,103,147	4,241,473	4,265,678	4,352,146	86,468	2.0%
Interest and Late Fees	\$	27,243	24,349	31,566	20,000	20,000	0	0.0%
State Grants	\$	0	0	0	0	0	0	0.0%
<b>SUBTOTAL REVENUES</b>	<b>\$</b>	<b>4,106,417</b>	<b>4,127,497</b>	<b>4,273,040</b>	<b>4,285,678</b>	<b>4,372,146</b>	<b>86,468</b>	<b>2.0%</b>
Borrowing								
Authorizations	\$	0	0	0	0	0	0	0.0%
Other Available Funds	\$	0	0	0	0	0	0	0.0%
Surplus Funds	\$	360,750	0	170,500	58,000	0	(58,000)	0.0%
<b>TOTAL RESOURCES</b>	<b>\$</b>	<b>4,467,167</b>	<b>4,127,497</b>	<b>4,443,540</b>	<b>4,343,678</b>	<b>4,372,146</b>	<b>28,468</b>	<b>0.7%</b>
Operating Budget	\$	3,061,615	3,135,582	2,952,625	3,216,615	3,256,200	39,585	1.2%
Debt Service	\$	294,850	365,850	362,100	355,100	348,100	(7,000)	-2.0%
Capital Program	\$	728,750	720,000	315,500	320,666	302,666	(18,000)	-5.6%
<b>TOTAL APPROPRIATION</b>	<b>\$</b>	<b>4,085,215</b>	<b>4,221,432</b>	<b>3,630,225</b>	<b>3,892,381</b>	<b>3,906,966</b>	<b>14,585</b>	<b>0.4%</b>
Indirect Costs Appropriated in General Fund	\$	449,409	454,779	463,319	451,297	465,180	13,883	3.1%
<b>TOTAL EXPENDITURES</b>	<b>\$</b>	<b>4,534,624</b>	<b>4,676,211</b>	<b>4,093,544</b>	<b>4,343,678</b>	<b>4,372,146</b>	<b>28,468</b>	<b>0.7%</b>

## WATER FUND

## RESOURCES

**GOAL STATEMENT:** To provide an adequate amount and proper balance of revenue sources to ensure that the Water Fund is completely self-supporting.

### LONG RANGE OBJECTIVES:

#### FY 18 OBJECTIVES:

- To continue to adequately fund operating and capital needs with a minimum water rate increase.
- To develop a more defined policy regarding an appropriate reserve level for Water Fund Surplus.

### SERVICE LEVELS:

	<u>FY 12</u> <u>Actual</u>	<u>FY 13</u> <u>Actual</u>	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Actual</u>	<u>FY 16</u> <u>Actual</u>
Funding Composition (%)					
Operating Revenues	89	99	88	99	95
Interest	1	1	1	1	1
Surplus Funds	10	0	11	0	4
Grants	0	0	0	0	0
Other Available Funds	0	0	0	0	0

## WATER FUND

## RESOURCES

		FY 14	FY 15	FY 16	FY 17	FY 18	Change	Percent
		Actual	Actual	Actual	Budget	Manager	FY 17 - 18	Change
Water Rates	\$	3,832,052	3,924,910	4,064,313	4,095,678	4,182,146	86,468	2.1%
Water Liens	\$	103,259	64,152	83,044	75,000	75,000	0	0.0%
Water Connection Fees	\$	43,400	44,500	34,900	35,000	35,000	0	0.0%
Other Water Revenues	\$	100,463	69,585	59,217	60,000	60,000	0	0.0%
Water Interest and Late Fees	\$	27,243	24,349	31,566	20,000	20,000	0	0.0%
	\$	<u>4,106,417</u>	<u>4,127,497</u>	<u>4,273,040</u>	<u>4,285,678</u>	<u>4,372,146</u>	<u>86,468</u>	<u>2.0%</u>

**SIGNIFICANT BUDGET CHANGES:**

The FY 18 proposed Water Fund budget of \$4,372,146 is an increase of 2% from the FY 17 budget of \$4,343,678 (see Water Fund Summary). The current water rate is \$3.65 per 100 CF. A rate increase to \$3.80 per 100 CF (4.1%) is recommended for FY 18. This rate increase will help maintain an adequate fund balance in future years. The July 1, 2016 Water Fund Free Cash balance was \$1,057,644 (24% of operating revenues). The Town's water/sewer rates remain below state and regional averages.

## WATER FUND

## 4450: WATER SUPPLY AND DISTRIBUTION

**GOAL STATEMENT:** To supply adequate volumes of high quality water to the residents, business, and institutions of Amherst and to maintain compliance with all Environmental Protection Agency Drinking Water Regulations.

### RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

#### Accomplishments

- Successfully managed through serious drought conditions, working in partnership with the residents, businesses, and institutions.
- Implemented and managed voluntary and mandatory water bans through the summer until December 15, 2016.
- Atkins Water Treatment Plant (WTP)
  - Upgraded influent and effluent valves on Filter 1, the last of the three filters to be upgraded.
  - Replaced Filter 2 laterals, air nozzle, and clarifier media in one of three clarifiers.
- Baby Carriage Brook WTP
  - Built a new logging bridge over failing culvert.
  - Installed new variable frequency drive at Well 4 pump house.
  - Contracted and installed new automatic transfer switches for standby power at the plant and well house.
  - Cleaned and serviced main electrical console panel at the treatment plant.
  - Started the bidding process for new generators at the plant and well house.
  - Upgraded original solenoid valves on all 4 filters at the plant (20 valves).
- Centennial WTP
  - Cleaned and serviced main electrical consoles at the treatment plant and raw water pump station.
  - Replaced old deteriorated insulation with new efficient spray foam insulation and old circuit board on back-up generator.
  - Replaced 2 flocculator motors on Filter 3; the last of the flocculator motors to be replaced.
  - Cleaned and rehabbed all 3 flocculation basins.
  - Completed upgrades to the chlorine system in addition to new free and total chlorine analyzers.
- Hawley reservoir- Repaired the shaft on flow control valve at the reservoir.
- Wells
  - Wells 1 and 2 - removed old addition of Well 1 to make room for new generator pad and generator.
  - Well 3 - installed chlorination system.
- Distribution
  - Underwater Solutions was hired to do inspections and cleanings of all three water storage tanks.
  - Dredged the two settling ponds and installed new drainage in rear of building at Centennial WTP.
  - Supported water main construction on Shumway, Dickinson, Fisher, and Harris Streets, and Pomeroy Lane.
  - Contracted with Toomey Water Services to test and maintain backflow program.
  - Calibrated master meter pits (various locations).
  - Installed 12 new insertion valves (ensure quicker shutdown rates to conserve water during emergencies) and
  - Installed 20 new hydrants.

#### Challenges

- Prolonged drought conditions may require early conservation in 2017.
- Increased Department of Environmental Protection (DEP) regulations concerning per capita water consumption and the environmental impacts of ground water withdrawals will require the Town to examine its current billing and water usage tracking systems. This review will require additional resources to compare individual customer usages with regulatory goals.
- Develop a plan to fully understand the financial and water use impacts of the new DEP regulations under the Sustainable Water Management Initiative. The Town will have to meet these requirements to renew the current water withdrawal permits in 2017.
- Meet DEP's new requirements for the disinfection byproducts, Trihalomethanes (THM) and Haloacetic Acids (HAA), in finished water that has the potential to alter our treatment methodology.

**WATER FUND****4450: WATER SUPPLY AND DISTRIBUTION****LONG RANGE OBJECTIVES:**

- To continue to explore new sources of drinking water.
- To continue to execute the system improvement plans to repair/replace old water mains, valves, and hydrants.
- To continue to keep all water meters up to date, with no meters greater than 20 years old.
- To continue the program to calibrate all master meters on an annual schedule and replace them as needed.
- To do leak detection surveys every two years to minimize water loss in the pipes.

**FY 18 OBJECTIVES:**

- To design and install new generators at Well 1 and Well 2.
- To inspect and replace as needed all water gates at river crossings.
- To eliminate last 8 household meter pits.
- To aggressively maintain Atkins Reservoir for overgrown brush and remove declining or standing dead trees.
- To continue to install radio read devices on remaining meters in town.
- To continue abandonment on the last 8 remaining meter pits.
- To start the planning and replacement of (older) master meter pits.
- To start the planning process of getting fiber connections to the facilities that don't currently have service.
- To repair /replace roof at Centennial WTP.
- To design equalization tank and hook-up to existing sewer at Centennial WTP.

**SERVICE LEVELS:**

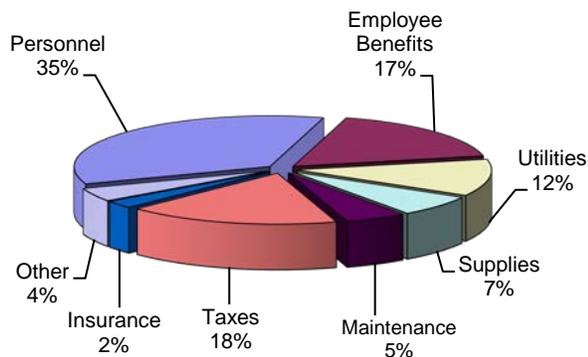
	<b>FY 12</b> <b>Actual</b>	<b>FY 13</b> <b>Actual</b>	<b>FY 14</b> <b>Actual</b>	<b>FY 15</b> <b>Actual</b>	<b>FY 16</b> <b>Actual</b>
New water services installed	11	17	15	32	16
Water service relays	12	20	23	15	20
Water services Water metered	6,263	6,271	6,285	6,317	6,327
& produced (billion gals)	.98	.96	.98	1.1	1.0
Positive coliform bacteria samples	0	0	0	0	1
Meters installed	850	433	457	305	127
Hydrants in service	1,118	1,116	1,126	1,132	1,132
Frozen water services	0	1	6	26	0
Hydrants repaired	27	18	30	16	20
Water mains flushed (miles)	114	114	114	114	114
Water main breaks repaired	6	9	11	9	8
Percent of meters read by radio	10%	18%	25%	34%	39%

## WATER FUND

## 4450: WATER SUPPLY AND DISTRIBUTION

	FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Personnel Services	\$ 1,077,949	1,107,194	1,042,826	1,116,759	1,138,651	21,892	2.0%
Operating Expenses	\$ 1,983,666	2,025,988	1,902,133	2,095,456	2,113,149	17,693	0.8%
Capital Outlay	\$ 0	2,400	7,666	4,400	4,400	0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$ 3,061,615</b>	<b>3,135,582</b>	<b>2,952,625</b>	<b>3,216,615</b>	<b>3,256,200</b>	<b>39,585</b>	<b>1.2%</b>
<b>SOURCES OF FUNDS</b>							
Water Revenues	\$ 3,061,615	3,135,582	2,952,625	3,216,615	3,256,200	39,585	1.2%
Surplus Funds	\$ 0	0	0	0	0	0	0.0%
<b>POSITIONS</b>							
Full Time	17.58	17.58	18.73	18.56	18.39	(0.17)	
Part Time with Benefits	2.00	2.00	1.00	1.00	1.00	0.00	
Full Time Equivalents	17.98	17.98	18.99	18.82	18.65	(0.17)	

## MAJOR COMPONENTS:



Personnel Services include salaries for the Assistant Superintendent (shared with the Sewer Fund and the General Fund), one division director, two division supervisors, four water treatment operators, two skilled laborers, two maintenance workers, one meter reader, one backflow tester and an equipment operator. The Town Engineer, the Civil Engineer, a division supervisor, a clerk, an administrative analyst, an applications manager, and an engineer technician are shared with the General Fund and Sewer Fund. A utility technician, an environmental scientist, and an electrician are shared with the Sewer Fund. A watershed land manager and a part time land manager is shared with the General Fund. Also included is \$77,000 for overtime.

\$561,311 is budgeted for health, retirement, life insurance, and other benefits, including a payment of \$79,000 into the OPEB Trust Fund.

Utilities include \$306,254 for electricity and \$71,187 for fuel.

Maintenance, \$165,300, includes funds to repair dams, bridges, service lines, and meters.

Supplies, \$219,081, include funds for gasoline, office supplies, and chemicals.

Taxes, \$570,721, are paid to Amherst, Pelham, and Shutesbury for watershed property.

Insurance, \$79,800, provides building, vehicle, and liability coverage.

**SIGNIFICANT BUDGET CHANGES:**

Personnel Services changes include changing the allocation of both the GIS administrator, now applications manager, and the electrical division director, now electrical division supervisor to be split evenly with the Sewer and General Fund. Previously the split was 50/50 with the Sewer Fund. This change reflects the distribution more accurately to the work being done.

Operating expenses increase by 0.8% due to increases in retirement costs.

**WATER FUND****GENERAL FUND SERVICES**

**GOAL STATEMENT:** To compensate the General Fund for services provided by various departments.

**LONG RANGE OBJECTIVES:****FY 18 OBJECTIVES:**

- To ensure that all costs related to water services are identified and appropriately charged through evaluation and modification of the indirect cost model used to assess charges for General Fund administrative support.

**SERVICE LEVELS:**

	<u>FY 12</u> <u>Actual</u>	<u>FY 13</u> <u>Actual</u>	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Actual</u>	<u>FY 16</u> <u>Actual</u>
Number of departments reimbursed	9	9	9	9	9
Percentage of total Fund expenses paid to the General Fund	11	11	10	10	10

**WATER FUND**

**GENERAL FUND SERVICES**

		FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
General Fund Services	\$	449,409	454,779	463,319	451,297	465,180	13,883	3.1%
Transfer to Trust Funds	\$	0	0	0	0		0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$</b>	<b>449,409</b>	<b>454,779</b>	<b>463,319</b>	<b>451,297</b>	<b>465,180</b>	<b>13,883</b>	<b>3.1%</b>
<b>SOURCES OF FUNDS</b>								
Water Revenues	\$	449,409	454,779	463,319	451,297	465,180	13,883	3.1%

**MAJOR COMPONENTS:**

General Fund Services: The General Fund provides services which are used by the Water Fund. Transfers are made from the Water Fund to the General Fund to compensate for the costs of these services. Charges for FY 18 are as follows:

Select Board / Town Manager	7% of budget	\$ 35,112
Finance Department	9% of budget	129,101
Human Resources/Human Rights	6% of budget	18,935
Information Technology	8% of budget	46,390
Public Works Administration	31% of budget	101,063
Construction & Maintenance	5% of budget	56,437
Equipment Maintenance	15% of budget	54,908
Conservation	5% of budget	21,236
Inspection Services	0.4% of budget	<u>2,000</u>
<b>TOTAL</b>		<b><u>\$465,180</u></b>

**SIGNIFICANT BUDGET CHANGES:**

None.

**WATER FUND****DEBT SERVICE**

**GOAL STATEMENT:** To provide funds for principal and interest payments for short and long term debt.

**RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:**

**LONG RANGE OBJECTIVES:**

**FY 18 OBJECTIVES:**

- To make payments on debt incurred to renovate the Centennial Water Treatment Plant and associated sewer line extension.
- To make payments on debt incurred to repair water lines on Pine Street.

**SERVICE LEVELS:**

	<u>FY 12</u> <u>Actual</u>	<u>FY 13</u> <u>Actual</u>	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Actual</u>	<u>FY 16</u> <u>Actual</u>
Number of issues outstanding	1	1	1	1	2
Number of new issues	0	0	0	1	0

**WATER FUND**

**DEBT SERVICE**

		FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Principal	\$	200,000	250,000	250,000	250,000	250,000	0	0.0%
Interest	\$	94,850	115,850	112,100	105,100	98,100	(7,000)	-6.7%
<b>TOTAL APPROPRIATION</b>	<b>\$</b>	<b>294,850</b>	<b>365,850</b>	<b>362,100</b>	<b>355,100</b>	<b>348,100</b>	<b>(7,000)</b>	<b>-2.0%</b>
<b>SOURCES OF FUNDS</b>								
Water Revenues	\$	294,850	365,850	362,100	355,100	348,100	(7,000)	-2.0%

<b>MAJOR COMPONENTS:</b>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
Centennial Treatment Plant	\$200,000	\$72,850	\$272,850
Pine Street	<u>50,000</u>	<u>25,250</u>	<u>75,250</u>
	<u>\$250,000</u>	<u>\$ 98,100</u>	<u>\$348,100</u>

**SIGNIFICANT BUDGET CHANGES:**  
 There is no new debt in the Water Fund.

## WATER FUND

## CAPITAL PROGRAM SUMMARY

**GOAL STATEMENT:** To provide for the maintenance and improvement of the Town's water system and to secure additional water resources.

### LONG RANGE OBJECTIVES:

- To sample our surface water supplies for compliance with two new Environmental Protection Agency regulations; "Long Term 2 Enhanced Surface Water Treatment Rule" and the "Stage 2 Disinfection Byproducts Rule" (reduction in the formation of harmful chemicals by the chlorination process). Compliance with these regulations will likely require significant capital improvements to the Atkins Water Treatment Plant.

### FY 18 OBJECTIVES:

- To complete the following:
  - Water Treatment Improvements
  - Replace a Pickup Truck
  - DPW Facility Improvements
  - Watershed Land Acquisition
  - Mower.

### SERVICE LEVELS:

	<u>FY 12</u> <u>Actual</u>	<u>FY 13</u> <u>Actual</u>	<u>FY 14</u> <u>Actual</u>	<u>FY 15</u> <u>Actual</u>	<u>FY 16</u> <u>Actual</u>
Number of Projects:					
Departmental Equipment	2	2	2	1	1
Existing Facilities	2	2	3	5	3
New Facilities	1	0	1	2	1

## WATER FUND

## CAPITAL PROGRAM SUMMARY

		FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Departmental Equip.	\$	63,000	40,000	40,000	47,666	47,666	0	0.0%
Existing Facilities	\$	305,000	180,000	105,000	215,000	55,000	(160,000)	-74.4%
New Facilities	\$	360,750	500,000	170,500	58,000	200,000	142,000	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$</b>	<b>728,750</b>	<b>720,000</b>	<b>315,500</b>	<b>320,666</b>	<b>302,666</b>	<b>(18,000)</b>	<b>-5.6%</b>
<b>SOURCES OF FUNDS</b>								
Water Revenues	\$	368,000	720,000	145,000	320,666	302,666	(18,000)	-5.6%
State Grants	\$	0	0	0	0	0	0	0.0%
Borrowing Auth.	\$	0	0	0	0	0	0	0.0%
Available Funds	\$	0	0	0	0	0	0	0.0%
Surplus Funds	\$	360,750	0	170,500	58,000	0	(58,000)	0.0%

<b>MAJOR COMPONENTS:</b>			
	Facilities:	\$ 200,000	Watershed Land Acquisition
		\$50,000	Water Treatment System Improvements
		5,000	DPW Facility Improvements
	Equipment	40,000	Replacement Truck
		7,666	Mower