

## PUBLIC WORKS SUMMARY

	FY 14	FY 15	FY 16	FY 17	FY 18	Change	%
	Actual	Actual	Actual	Budget	Manager	FY 17-18	Change
Public Works Administration	\$ 315,861	302,210	360,668	363,537	369,339	5,802	1.6%
Highway	\$ 681,129	716,555	784,634	765,720	786,069	20,349	2.7%
Snow & Ice Removal	\$ 418,813	531,586	224,955	280,410	280,410	0	0.0%
Street & Traffic Lights	\$ 83,309	64,910	60,279	99,650	122,969	23,319	23.4%
Equipment Maintenance	\$ 268,046	244,365	254,432	266,245	271,874	5,629	2.1%
Tree and Grounds Maintenance	\$ 435,442	450,456	416,314	479,092	495,973	16,881	3.5%
<b>TOTAL APPROPRIATION</b>	<b>\$ 2,202,600</b>	<b>2,310,082</b>	<b>2,101,281</b>	<b>2,254,654</b>	<b>2,326,634</b>	<b>71,980</b>	<b>3.2%</b>
<b>SOURCES OF FUNDS</b>							
Departmental Receipts	\$ 17,355	17,655	14,930	16,000	16,000	0	0.0%
Water Fund	\$ 212,363	223,477	215,065	213,431	212,408	(1,023)	-0.5%
Sewer Fund	\$ 150,831	161,766	149,771	144,789	135,505	(9,284)	-6.4%
Transportation Fund	\$ 47,295	47,605	48,324	50,416	56,437	6,021	11.9%
Taxation	\$ 1,774,756	1,859,579	1,673,191	1,830,018	1,906,284	76,266	4.2%
Total	\$ 2,202,600	2,310,082	2,101,281	2,254,654	2,326,634	71,980	3.2%

Public Works Administration oversees engineering design, project management, construction oversight, and project implementation of all Public Works budgets and projects.

The Highway division maintains the highways, streets, and sidewalks of the Town and assists other Public Works divisions. The budget increase of \$20,349 is the result of step increases.

The Snow & Ice Removal budget is level funded.

Street & Traffic Light division increases due to reallocation of the budget for personnel services, moving one-third of the Electrical Division Supervisor from Water and Sewer Funds to the General Fund. In the past, the personnel in this budget were funded by the Water and Sewer Funds (50/50) which were given priority in electrical issues. The demands for electrical work in the General Fund have increased and this reallocation adjusts the costs to be more closely in line with the work performed.

All vehicles used for road maintenance, snow plowing, tree care, park maintenance, leaf pickup as well as water and sewer (with appropriate reimbursements assessed) are maintained, repaired, and serviced by a three person crew included in the Equipment Maintenance division. This budget covers step increases.

The Tree and Grounds Maintenance budget provides funds for mowing parks, commons and miscellaneous greenbelts throughout the Town; for maintaining ball fields, including those at schools; and for maintaining park buildings and the Town center. The budget increase reflects step increases and funds to promote a laborer to a skilled laborer/truck driver.

Public Works services will be preserved at current levels, provided by 27.88 FTE employees.

## PUBLIC WORKS

## 4410: PUBLIC WORKS ADMINISTRATION

**MISSION STATEMENT:** To manage all public works functions and activities in a manner that protects the health and safety of citizens.

### RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

- FY 17 represented the first year since FY 04 that the Town has completely funded the General Fund portion of the DPW budget.
- Supported a large capital work load in addition to ongoing maintenance and daily routine. The Department is working on 16 major projects.
- Completed the installation of electrical, telephone, cable TV and street light vaults, conduits, and handholds for the East Pleasant and Triangle Street Mass Works Grant.
- Managed annual paving contract that paved 14,177 linear feet of paving, including:
 

Northeast Street (from Strong to Henry)	Amity Street (from North Pleasant to North Prospect Streets)
East Pleasant Street (Hallock to Triangle)	Lady Slipper Circle
Larkspur Drive	Teaberry Lane
Woodlot Road	Fisher Street
Harris Street	Authority Way
- Designed and managed the construction of the Crocker Farm parking lot addition for the School Department.
- Managed the Shumway Community Development Block Grant work. Repaved the street and added new sidewalks.
- Oversaw the Amity Street Parking Lot improvements, integrated with the work on Amity Street that removed the temporary (12 year) sidewalk ramp, installed new street and parking lot lights, upgraded the landscaped areas, installed a raised crosswalk and added one handicapped space. This work was designed by the Engineering staff.
- Received a Massachusetts Clean Energy Technology Center grant to work with the UMass Civil Engineering Department to pilot innovative wastewater treatment technologies.
- Completed the in-house design of the Northampton Road water main replacement project, 4,100 feet of 12 inch ductile iron pipe, 9 cross connects to existing water mains, and multiple hydrant upgrades and service connections.
- Bid and started construction on Phase 2 of the Amherst Woods Sewer project. Phase 2 will sewer Wildflower, Trillium Way, Foxglove Lane, Indian Pipe Lane, Alyssum Drive, the eastern end of Station Road, Iduna Lane, and Cortland Drive.
- Continued work on the DPW facility study. This year the focus was on identifying viable sites for a new DPW structure, including the potential for design/construction funds in the capital plan as early as FY 18.
- Designed and managed a contract for multiple water and sewer line improvements that replaced water lines on East Pleasant, Triangle, Fisher, Harris, Shumway, and Dickinson Streets, and Pomeroy Lane. The project replaced sewer lines on Shumway and Dickinson Streets.
- Supported the Massachusetts Department of Transportation with the Mill Street Bridge Project, a \$ 2.4 million bridge replacement.
- Provided support to the very successful 5<sup>th</sup> annual Business Improvement District Block Party.

#### Challenges:

- Recruiting and maintaining a qualified and capable DPW staff in a geographic region that is experiencing significant retirement turnovers in the public works field.
- Beginning the Environmental Protection Agency's Phase II stormwater program. This is a five year permit beginning in FY 18 that will require assessing, inventorying, identifying deficiencies, and preparing projects to meet new higher federal standards for the Town's stormwater sewer system.
- Preparing for the next Water Management Act permit for the Water Division which will also impact the Highway and Waste Water Treatment Divisions.

**PUBLIC WORKS****4410: PUBLIC WORKS ADMINISTRATION****LONG RANGE OBJECTIVES:**

- To implement the DPW facilities plan as recommended by the study.
- To implement a more thorough long-range planning schedule and process, with a goal to have more specific information on work areas and timelines.
- To implement a new work order system that will be used by all DPW Division Directors and Supervisors on a daily basis and provide better information management and improved responsiveness to customers.
- To upgrade the annual recurring work schedule for the DPW. This includes reports to regulators, required water and soil samplings, and reports to other Town boards and committees.

**FY 18 OBJECTIVES:**

- Submit the Town's Phase II stormwater program permit application. The permit application will include a program of stormwater improvements and monitoring that will be implemented over the budget years of FY 18 thru FY 23.
- Implement a new work order system that equitably and appropriately services citizen work requests and department scheduling and administration.
- To improve the information flow between the office to Division Directors so that the DPW can better communicate information concerning work requests to customers. This is part of the implementation of the new work order system.
- To provide construction oversight of Phase 2 of the Amherst Woods sewer project.
- To evaluate the DPW management and division structure for efficiency, response, and communication, with recommendations for adjustments to occur throughout the year.
- To reevaluate all the roadway pavement sections in the Town's road system to determine deterioration rates, reconstruction progress, and projected future work load. The goal of the DPW is to have all roads with a pavement condition index (PCI) of 60 out of a 100 point scale.

**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>
Citizen Work Requests	1,447	991	1,197	869	1,203
Driveway Permits	37	47	45	42	46
General Excavation Permits	43	87	70	64	59
Sale of Cemetery Lots	10	8	6	3	2
Specifications Prepared	11	15	14	7	5
Refuse Disposal Billing	735	690	650*	619	652
Water Permits: New Services & Relays	23	37	39	32	36
Water & Wastewater Reports	240	240	240	240	240
Wastewater Reports to EPA	12	12	12	12	12
Sewer Entrance Permits	14	33	28	8	30
Committees Staffed	5	5	5	5	6
Subdivision (reviews and support to Planning Dept.)					
Engineering Review	3	0	1	1	0
Construction Oversight	2	2	2	1	1
Site Plan Review (private project reviews)	28	37	58	52	50
Project Design					
In House	11	11	15	11	22
Consultant	6	7	11	10	7
Construction Oversight					
Contractor Work	10	3	18	13	27
DPW Crews	6	8	9	7	5
Contractor/Consultant	10	10	6	4	6

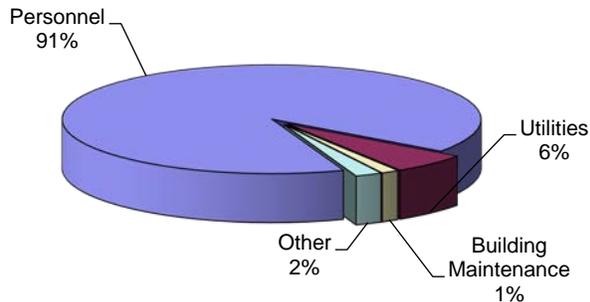
\*Estimate computer crashed and some data lost

## PUBLIC WORKS

## 4410: PUBLIC WORKS ADMINISTRATION

	FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Personnel Services	\$ 268,288	277,070	329,567	328,837	334,639	5,802	1.8%
Operating Expenses	\$ 47,573	25,140	31,101	34,700	34,700	0	0.0%
Capital Outlay	\$ 0	0	0	0		0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$ 315,861</b>	<b>302,210</b>	<b>360,668</b>	<b>363,537</b>	<b>369,339</b>	<b>5,802</b>	<b>1.6%</b>
<b>SUPPLEMENTAL INFORMATION</b>							
Employee Benefits	\$ 104,374	112,772	123,885	130,956	136,644	5,688	4.3%
Capital Appropriations	\$ 5,000	5,000	5,000	25,000	5,000	(20,000)	-80.0%
<b>TOTAL DEPARTMENT COST</b>	<b>\$ 425,235</b>	<b>419,982</b>	<b>489,553</b>	<b>519,493</b>	<b>510,983</b>	<b>(8,510)</b>	<b>-1.6%</b>
<b>SOURCES OF FUNDS</b>							
Departmental Receipts	\$ 10,000	11,095	9,070	10,000	10,000	0	0.0%
Water Fund	\$ 118,629	126,980	117,731	111,602	101,063	(10,539)	-9.4%
Sewer Fund	\$ 119,872	129,172	117,098	110,514	98,900	(11,614)	-10.5%
Taxation	\$ 67,360	34,963	116,769	131,421	159,376	27,955	21.3%
<b>TOTAL RESOURCES</b>	<b>\$ 315,861</b>	<b>302,210</b>	<b>360,668</b>	<b>363,537</b>	<b>369,339</b>	<b>5,802</b>	<b>1.6%</b>
<b>POSITIONS</b>							
Full Time	3.36	3.36	4.04	4.04	4.04	0.00	
Part Time With Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	3.36	3.36	4.04	4.04	4.04	0.00	

## MAJOR COMPONENTS:



Personnel Services include salaries for the Superintendent of Public Works, a management assistant, and a 1/3 each of the Assistant Superintendent/Operations Director, a Management Assistant, an Administrative Analyst, an Engineering Technician, the Town Engineer, and the Assistant Town Engineer shared with the Water and Sewer Funds.

Building Maintenance, \$5,000, includes the cost of routine maintenance of the Public Works facility. Custodial and maintenance tasks are performed by staff in other public works budgets.

Utilities, \$22,050, include heating fuel, electricity, telephone, and water and sewer.

Other expenses include postage, office supplies, membership dues, subscriptions, etc.

**SIGNIFICANT BUDGET CHANGES:**

Personnel increases due to steps and contracts.  
Operating expenses level funded.

## PUBLIC WORKS

## 4422: HIGHWAY

**MISSION STATEMENT:** To maintain the highways, streets, and sidewalks of the Town at an acceptable usable level based on funding and user expectations. To provide support services to the other functional areas of the department as needed.

### RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

- FY 17 is the first year since FY 04 that the Town has completely funded the General Fund portion of the DPW budget. This removes the requirement to schedule major construction projects in the Highway Division.
- Completed the installation of electrical, telephone, cable TV and street light vaults, conduits, and handholds for the East Pleasant and Triangle Streets Mass Works Grant.
- Working with the Tree & Grounds and Waste Water Divisions, replaced 210 feet of failed 21 inch sewer trunk line along a wooded easement while maintaining constant sewer flows from South Amherst. This project took 7 days to complete including 4 days of 24 hour bypass pumping.
- Using a local paving company and DPW staff, the Division performed "shim" overlays on 11 streets with a total of about 1,000 tons of asphalt and a cost of \$100,000. This project has proven to be quite successful in doing minor maintenance work at a cost that is less expensive than our full width overlays. This interim maintenance work will extend the pavement life of the roadway several years depending on traffic. The following roads were worked on:

Aubinwood Drive	Main Street	Red Gate Lane	Station Road
Bay Road	Meadow Street	Russellville Road	Taylor Street
High Street	North Pleasant Street	South East Street	

- Repaired the Meadow Street drainage culverts.
- Installed a Hydroceptor storm drainage structure that removes sediments and oils from storm water at the Mill Street Bridge.
- Removed the Groff Park wading pool.
- Loamed and seeded various areas repaved this year and last.
- Trained, certified and used department personnel as certified roadway flaggers.

#### Challenges

- Crack seal 10% of the road miles in Town annually. This will protect many road surfaces and extend their useful lives.
- Staffing winter operations to meet the needs of the community.
- Manage new state stormwater regulations and evaluate our current stormwater maintenance methods and strategies

### LONG RANGE OBJECTIVES:

- To examine possible changes to the Division's structure to handle the new stormwater permit requirements.
- To increase the efficiency of the Division through departmental training and the acquisition of labor saving equipment.

### FY 18 OBJECTIVES:

- To transition administrative focus from capital projects management to preventative maintenance and agile response to unforeseen emergencies.
- To crack seal 5 miles of Town roadways.
- To spend one to two months performing asphalt shim coats on several roads in town to extend their useful lives.
- To respond to pothole notices in five working days.
- To implement a roadway painting schedule for all crosswalks and roadway markings in a four week time frame early every summer.
- To continue to refine the street line painting schedule.
- To hire two seasonal employees this summer to assist with highway crew support, roadside mowing, and other work.

## PUBLIC WORKS

## 4422: HIGHWAY

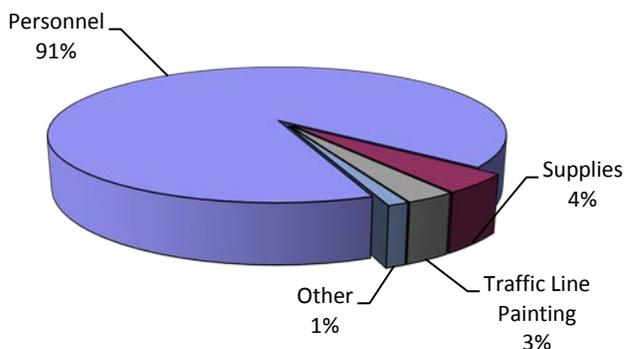
<b>SERVICE LEVELS:</b>	<b>FY 12</b>	<b>FY 13</b>	<b>FY 14</b>	<b>FY 15</b>	<b>FY 16</b>
	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>
Resurfacing (miles)	2.1	3.6	2.5	3.8	2.4
Drainage pipe installed (feet)	150	580	160	120	80
Catch basins cleaned	275	275	260	100	156
Curb mi. of road sweeping	270	270	270	270	270
Drainage ditch cleaning (miles)	0	4	0	0	1
Street & Traffic sign Work Requests	98	100	160	225	117
General street maintenance (pothole patching – tons)	258	400	1,500	320	400
Street center line painting (feet)	100,000	370,950	110,982	239,892	200,171
Cross walks painted	130	140	140	140	140
Road edge line painting (feet)	45,600	9,000	36,973	97,126	277,310
New drainage units installed	0	20	0	5	1
Granite curbing repaired or installed (feet)	160	200	50	0	0
Repairs to sidewalks (Linear Feet)	320	280	150	3,430	3,260
New Sidewalk (Linear Feet)	0	0	1,200	2,700	2,800
Sewer pipe installed (feet)	152	2,701	7,217	12,000	1,863
Roadside mowing (miles)	325	325	325	325	325
Crack Sealing (miles)	3	0	1	0	0
Shimming (tons)			1,077	1,000	1,000

## PUBLIC WORKS

## 4422: HIGHWAY

	FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Personnel Services	\$ 607,886	627,971	679,571	706,109	726,458	20,349	2.9%
Operating Expenses	\$ 72,821	88,584	105,063	59,611	59,611	0	0.0%
Capital Outlay	\$ 422	0	0	0	0	0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$ 681,129</b>	<b>716,555</b>	<b>784,634</b>	<b>765,720</b>	<b>786,069</b>	<b>20,349</b>	<b>2.7%</b>
<b>SUPPLEMENTAL INFORMATION</b>							
Employee Benefits	\$ 318,175	303,046	292,703	295,820	342,663	46,843	15.8%
Capital Appropriations	\$ 1,361,883	1,230,233	1,136,883	1,277,383	1,186,883	(90,500)	-7.1%
<b>TOTAL DEPARTMENT COST</b>	<b>\$ 2,361,187</b>	<b>2,249,834</b>	<b>2,214,220</b>	<b>2,338,923</b>	<b>2,315,615</b>	<b>(23,308)</b>	<b>-1.0%</b>
<b>SOURCES OF FUNDS</b>							
Water Fund	\$ 47,295	47,605	48,324	50,416	56,437	6,021	11.9%
Transportation Fund	\$ 47,295	47,605	48,324	50,416	56,437	6,021	11.9%
Taxation	\$ 586,539	621,345	687,986	664,888	673,195	8,307	1.2%
<b>TOTAL RESOURCES</b>	<b>\$ 681,129</b>	<b>716,555</b>	<b>784,634</b>	<b>765,720</b>	<b>786,069</b>	<b>20,349</b>	<b>2.7%</b>
<b>POSITIONS</b>							
Full Time	13.00	13.00	13.00	13.00	13.00	0.00	
Part Time With Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	13.00	13.00	13.00	13.00	13.00	0.00	

## MAJOR COMPONENTS:



Personnel Services include salaries for a Division Director, 3 senior crew supervisors, 1 sign maintenance worker, 5 skilled laborers/truck drivers (Two shared with the Sewer Fund), and 4 equipment operators. Also included is \$20,000 for overtime and \$10,000 for extra help.

Supplies, \$31,110 include materials for road maintenance: asphalt, concrete, culverts, stone and gravel, signs, and small tools.

Purchase of services includes \$20,000 for traffic line painting.

**SIGNIFICANT BUDGET CHANGES:**

Personnel Services increase because of steps and contracts.  
Operating expenses are level funded.

## PUBLIC WORKS

## 4423: SNOW AND ICE REMOVAL

**MISSION STATEMENT:** To ensure the safety of motorists and pedestrians using public ways during winter weather. To provide access for emergency vehicles by ensuring that ice and snow operations are performed in a timely fashion.

### RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

- The DPW shifted from a sand/salt/liquid mixture to a salt/liquid mixture for snow and ice control. This required that roadways be pre-treated before snowstorms begin. The material has reduced our overall salt usage, eliminated the need for extensive spring sweeping, and reduced plowing time and fuel costs.

### LONG RANGE OBJECTIVES:

- To improve sanding controls to apply product where needed when needed.
- To adjust winter operations to meet changing demands in winter services.

### FY 18 OBJECTIVES:

- To train and integrate new employees into the Town's snow operations processes.

### SERVICE LEVELS:

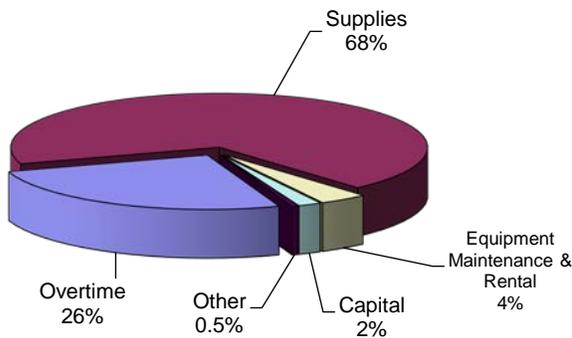
	<b>FY 12</b> <b>Actual</b>	<b>FY 13</b> <b>Actual</b>	<b>FY 14</b> <b>Actual</b>	<b>FY 15</b> <b>Actual</b>	<b>FY 16</b> <b>Actual</b>
Lane Miles Plowed	256	256	256	256	256
Sidewalk Miles Plowed	62	62	62	62	62
Snow Storms	14	30	32	55	24
Snow Fall (inches)	17.9	42.5	46.4	71.6	16.6
Sand Used (tons)	1,451	3,151	0	224	33
Salt Used (tons)	528	1,409	2,376	3,267	1,533
Sand Boxes Distributed	1	1	0	0	0
Ice Ban Magic (gal)	4,500	3,900	4,000	8,500	4,000

## PUBLIC WORKS

## 4423: SNOW AND ICE REMOVAL

	FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Personnel Services	\$ 131,025	160,844	36,327	71,750	71,750	0	0.0%
Operating Expenses	\$ 270,108	370,742	188,628	203,660	203,660	0	0.0%
Capital Outlay	\$ 17,680		0	5,000	5,000	0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$ 418,813</b>	<b>531,586</b>	<b>224,955</b>	<b>280,410</b>	<b>280,410</b>	<b>0</b>	<b>0.0%</b>
<b>SUPPLEMENTAL INFORMATION</b>							
Employee Benefits	\$ 1,316	1,193	1,437	1,434	1,491	57	4.0%
Capital Appropriations	\$ 0	0	0	0	0	0	0.0%
<b>TOTAL DEPARTMENT COST</b>	<b>\$ 420,129</b>	<b>532,779</b>	<b>226,392</b>	<b>281,844</b>	<b>281,901</b>	<b>57</b>	<b>0.0%</b>
<b>SOURCES OF FUNDS</b>							
Taxation	\$ 418,813	531,586	224,955	280,410	280,410	0	0.0%
<b>TOTAL RESOURCES</b>	<b>\$ 418,813</b>	<b>531,586</b>	<b>224,955</b>	<b>280,410</b>	<b>280,410</b>	<b>0</b>	<b>0.0%</b>
<b>POSITIONS</b>							
Full Time	0.00	0.00	0.00	0.00	0.00	0.00	
Part Time With Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	0.00	0.00	0.00	0.00	0.00	0.00	

## MAJOR COMPONENTS:



Overtime provides funds for snowplowing. Plowing done during the workday is charged to other Public Works budgets. Plowing required beyond the workday, or beyond an employee's 40 hour workweek, is charged to this budget as overtime.

Equipment Maintenance, \$7,000, includes the cost of vehicle supplies such as wiper blades, flashers, beacon lights, chains, etc. Equipment Rental, \$3,500, provides funds to rent dump trucks for snow removal.

Supplies, \$191,860, include salt, calcium chloride, Ice Ban Magic, sand, gasoline, and diesel.

Capital provides for the replacement of a snowplow, part of an annual replacement program.

## SIGNIFICANT BUDGET CHANGES:

None.

## PUBLIC WORKS

## 4424 & 4425: STREET & TRAFFIC LIGHTS

**MISSION STATEMENT:** To ensure the safety of those using public ways by maintaining Town owned street lights and pedestrian and traffic signals in operating condition in order to ensure the safety of those using public ways.

### RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

- This function provides support to all Town departments as well as assistance to the school electrician.
- Installed 6 solar powered pedestrian crossing signals, with one remote button.
- Installed 1 solar powered school warning sign.
- Installed new power connection for lighting and parking meters at the Amity Street parking lot.
- Installed new ammonia injection systems at Atkins Water Treatment Facility.
- Swapped 4 of the lighting poles in the Spring Street lot to improve the accessibility of outlets at the Farmer's Market.
- Installed and maintained all the new parking banners in the center of town.
- Designed and installed a new lighting feed for the baseball fields at Fort River School.
- Assisted UMass travel center in repairing traffic cameras.
- Installed and programmed a new variable frequency drive at Centennial Water Treatment Plant.
- Assisted in the upgrade and installation of new pc and programming; installed new plant water pump, exhaust fans, and transducer inside the equalization tank; and replaced/repaired louver motors in the chemical rooms at Atkins Water Treatment Plant.
- Repaired 5 underground cable faults in the street lighting system.
- Replaced or converted all the lighting in the ramp and above ground section of the parking garage with new LED lighting.
- Removed/installed parking meter at the parking garage for the sidewalk repair project.
- Replaced a clarifier motor, 2 UPS, and power monitors at Waste Water Treatment Plant.
- Assisted IT Department to repair of cameras around the Town.
- Installed an emergency button for the Groff Park Wading Pool.
- Installed a new emergency phone at War Memorial Pool.
- Grounded the sun shades and ladders at Mill River Pool.
- Repaired cardboard compactor and methane flare at the transfer station.
- Installed a new generator at Main Street Waste Water Pumping Station.
- Installed a new transfer switch for the new generator at Main Street Pumping Station.
- Replaced and programmed Variable Frequency Drive at Station Road Pumping Station.
- Added electrical provisions for fluoride at Baby Carriage Brook Plant.
- Added lighting protection and voltage regulation on all Water Department modems.
- Replaced destroyed motors and contactors on Southeast Street Waste Water Pump Station.

#### Challenges:

- Develop an internal capability to trouble shoot and correct problems with the process computers, program logic controllers, and traffic signal controllers.
- Allocate funding for personnel according to demonstrated functional use including the General Fund.

**PUBLIC WORKS****4424 & 4425: STREET & TRAFFIC LIGHTS****LONG RANGE OBJECTIVES:**

- To continue the modernization and upgrade of all traffic lights.
- To implement an apprenticeship program with regional vocational schools to help the electrician with larger projects.
- To fully implement better customer feedback on divisional work requests.
- To reallocate personnel funding for traffic light and street light work.

**FY 18 OBJECTIVES:**

- To develop a usable labor and material accounting method to quantify the time and material spent on work orders and small projects.

**SERVICE LEVELS:**

	<b>FY 12</b>	<b>FY 13</b>	<b>FY 14</b>	<b>FY 15</b>	<b>FY 16</b>
	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>
Streetlights	1,140	1,160	1,160	1,160	1,160
School zone lights	4	4	4	4	5
Traffic lights	14	14	14	14	14
Traffic light knockdowns		2	3	0	12
Street light trouble calls*	630	550	115	9	65
Service calls to support:					
Water Division					118
Waste Water Division					86
Parking					25
Tree & Grounds					18
DPW Buildings					18
Police and Fire					8
Town Hall					7
School help					6
Amherst BID					5
Bangs Center					4

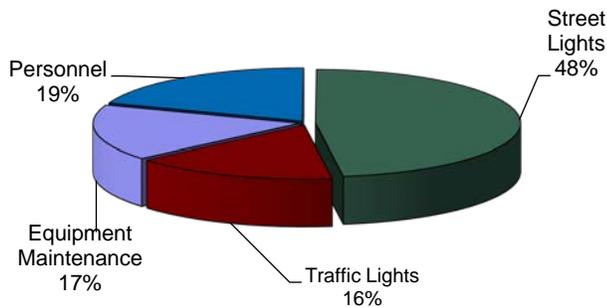
\* New LED lights were installed FY 13 – FY 14)

## PUBLIC WORKS

## 4424 &amp; 4425: STREET &amp; TRAFFIC LIGHTS

	FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Personnel Services	\$ 0	907	1,585	0	23,319	23,319	0.0%
Operating Expenses	\$ 83,308	64,003	58,694	99,650	99,650	0	0.0%
Capital Outlay	\$ 0	0	0	0	0	0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$ 83,308</b>	<b>64,909</b>	<b>60,279</b>	<b>99,650</b>	<b>122,969</b>	<b>23,319</b>	<b>23.4%</b>
<b>SUPPLEMENTAL INFORMATION</b>							
Employee Benefits	\$ 0	0	0	0	3,582	3,582	0.0%
Capital Appropriations	\$ 6,000	16,000	0	6,000	6,000	0	0.0%
<b>TOTAL DEPARTMENT COST</b>	<b>\$ 89,308</b>	<b>80,909</b>	<b>60,279</b>	<b>105,650</b>	<b>132,551</b>	<b>26,901</b>	<b>25.5%</b>
<b>SOURCES OF FUNDS</b>							
Taxation	\$ 83,308	64,909	60,279	99,650	122,969	23,319	23.4%
<b>TOTAL RESOURCES</b>	<b>\$ 83,308</b>	<b>64,909</b>	<b>60,279</b>	<b>99,650</b>	<b>122,969</b>	<b>23,319</b>	<b>0.0%</b>
<b>POSITIONS</b>							
Full Time	0.00	0.00	0.00	0.00	0.34	0.34	
Part Time With Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	0.00	0.00	0.00	0.00	0.34	0.34	

## MAJOR COMPONENTS:



Personnel Services include salaries for 1/3 Division Supervision shared with the Water and Sewer Funds.

Street lighting budget provides for electricity and maintenance of approximately 1,160 lights.

Traffic lighting budget provides electricity for 14 signalized intersections.

Equipment Maintenance provides the funds for the parts and service necessary to maintain traffic lights.

**SIGNIFICANT BUDGET CHANGES:**

Reallocation of the budget for personnel services moved one-third of the Electrical Division Supervisor from Water and Sewer Funds to the General Fund. In the past the personnel in this budget were funded by the Water and Sewer Funds (50/50) and were given priority in electrical issues. The demands for electrical work in the General Fund have increased and this reallocation adjusts the costs to be more closely in line with the work performed.

**PUBLIC WORKS****4428: EQUIPMENT MAINTENANCE**

**MISSION STATEMENT:** To enable the other divisions to meet their missions by maintaining the Department's fleet of vehicles, construction equipment, and various portable pieces of equipment in top notch operating condition.

**RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:**

- This functional area provides vehicle inspections to all Public Works, Town, Police, Fire, and Regional School vehicles. Each area is charged directly for the service provided.
- Rebuilt vehicle 69 a ten wheel sander.
- Rebuilt vehicle 90, the solid waste divisions roll-off truck.
- To examine how to better track equipment usage and maintenance costs to fully understand equipment costs and replacement strategies.

**LONG RANGE OBJECTIVES:**

- To provide additional service to other Town departments.
- To implement an electronic vehicle maintenance system.

**FY 18 OBJECTIVES:**

- To refine vehicle maintenance schedules to perform major repair or maintenance work in the off season for specific pieces of equipment.

**SERVICE LEVELS:**

	<b>FY 12</b>	<b>FY 13</b>	<b>FY 14</b>	<b>FY 15</b>	<b>FY 16</b>
	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>
Vehicles Repaired and Maintained*	104	105	105	105	105
Equipment Repaired & Maintained**	177	178	180	180	180
Gasoline Consumption (Gallons)	26,152	28,126	27,739	31,545	25,024
Oil Supplies (Gallons)	700	725	800	825	850
Diesel Consumption (Gallons)	24,345	27,728	28,504	33,177	22,369

\* Registered equipment including trailers.

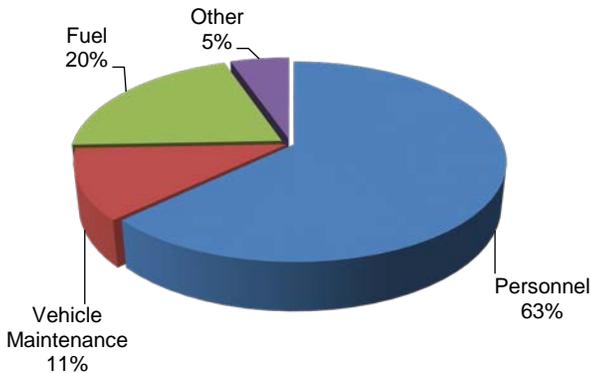
\*\* Small equipment, pumps, chain saws, lawn mowers, etc.

## PUBLIC WORKS

## 4428: EQUIPMENT MAINTENANCE

	FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Personnel Services	\$ 150,279	151,865	154,380	169,024	174,653	5,629	3.3%
Operating Expenses	\$ 117,767	92,500	100,052	94,721	94,721	0	0.0%
Capital Outlay	\$ 0	0	0	2,500	2,500	0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$ 268,046</b>	<b>244,365</b>	<b>254,432</b>	<b>266,245</b>	<b>271,874</b>	<b>5,629</b>	<b>2.1%</b>
<b>SUPPLEMENTAL INFORMATION</b>							
Employee Benefits	\$ 54,095	69,257	69,506	75,960	94,177	18,217	24.0%
Capital Appropriations	\$ 0	0	0	0	0	0	0.0%
<b>TOTAL DEPARTMENT COST</b>	<b>\$ 322,141</b>	<b>313,622</b>	<b>323,938</b>	<b>342,205</b>	<b>366,051</b>	<b>23,846</b>	<b>7.0%</b>
<b>SOURCES OF FUNDS</b>							
Water Fund	\$ 46,439	48,892	49,010	51,413	54,908	3,495	6.8%
Sewer Fund	\$ 30,959	32,594	32,673	34,275	36,605	2,330	6.8%
Taxation	\$ 190,648	162,879	172,749	180,557	180,361	(196)	-0.1%
<b>TOTAL RESOURCES</b>	<b>\$ 268,046</b>	<b>244,365</b>	<b>254,432</b>	<b>266,245</b>	<b>271,874</b>	<b>5,629</b>	<b>2.1%</b>
<b>POSITIONS</b>							
Full Time	3.00	3.00	3.00	3.00	3.00	0.00	
Part Time With Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	3.00	3.00	3.00	3.00	3.00	0.00	

## MAJOR COMPONENTS:



Personnel Services provide for a supervisor/mechanic and two mechanics.

Vehicle maintenance, \$30,000, includes funds for vehicle parts and supplies for approximately 53 vehicles.

Fuel includes \$53,284 for gas and diesel for all DPW general fund vehicles.

Capital Outlay provides funds for small equipment replacement.

**SIGNIFICANT BUDGET CHANGES:**

Personnel Services reflect step and contract increases.  
Operating expenses are level funded.

## PUBLIC WORKS

## 4498: TREE AND GROUND MAINTENANCE

**MISSION STATEMENT:** Enhance the quality of life for residents and the business community by providing an exceptional, diverse and healthy urban forest, connected by a system of parks, cemeteries, open spaces, and recreational facilities that are safe, accessible, and well maintained.

### RECENT ACCOMPLISHMENTS & CURRENT CHALLENGES:

- Working with the Highway and Waste Water Divisions replaced 210 feet of failed 21 inch sewer trunk line along a wooded easement while maintaining constant sewer flows from South Amherst. This project took 7 days to complete including 4 days of 24 hour bypass pumping.
- As part of "Cow Field" renovations the fence line was flat cut and pruned to restore vehicle site lines at the entrance.
- Assisted a group of volunteers to renovate the pitcher's mound and home plate at the Middle School baseball field.
- Worked with the Harris and Fisher Streets neighborhood to select tree species, planting locations, materials, and training for community tree planting project.
- Supported the Amherst BID to install and plant new tree planters in front of the Amity Street Parking Lot.
- Supported the Park Grants / CPAC funded projects: Mill River Little League field renovations, Groff spray park, and playground improvements.
- Finished the Plum Brook Field renovation in cooperation with LSSE.
- Held an Arbor Day Day of Service and was awarded Tree City USA designation for the 29th<sup>th</sup> consecutive year.
- Planted 240 trees, bringing total planted in 3 year program to approximately 1,370 trees.
- Contracted out the removal of six high risk trees that required the use of a crane to be safely and efficiently removed.
- Contracted out the re-processing of woodchip pile to landscape mulch.
- Pruned for road paving project on High Point, Overlook, and Juniper Drive.
- Pruned and removed trees for the water, sewer and paving projects on Shumway, Dickenson, Cottage, and Henry Streets.
- Pruned trees at Amity Street parking lot for renovation and designed and installed three new tree and shrub planting islands.
- Pruned trees along both sides of East Pleasant Street for the project to underground all utilities from North Pleasant to Triangle Streets and pruned for new power line to be installed along the north side of West Cemetery.
- Air-Spaded root zone for the re-alignment of Cows Road.
- Planted 60 trees donated by the Hadley Garden Center on Town property.
- Continued field maintenance agreement signed with Amherst Little League for the second year. This is a working partnership, which allows the non-profit to participate in the maintenance to Town baseball fields.

#### Challenges:

- To effectively manage the components of the Amherst Urban Forest. To take the 80 plus acres of turf in the parks and commons, the 106 miles of roadways with their 20,000 plus shade trees and the three cemeteries that makes up a large portion of the Town's green infrastructure and integrates it with the built infrastructure so they both thrive and complement each other.
- To ensure that the correct equipment is available for the tasks at hand.
- To provide adequate training to the staff to update safety and technical skills.

### LONG RANGE OBJECTIVES:

- To evaluate the need for and siting of additional cemetery land (approximately 6 years of space remaining).
- To work with public schools and LSSE to develop a consolidated outside maintenance group.
- To continue the public shade tree inventory in the Geographic Information System.
- To continue to improve response time and tracking of customer issues.
- To upgrade playground play structures in Town parks.
- To upgrade the War Memorial bathhouse.
- To replace the filter at Mill River Pool.
- To improve tree and grounds equipment to meet current demands and safety requirements.
- To develop a "Wood Bank" for shade trees removed.

**PUBLIC WORKS****4498: TREE AND GROUND MAINTENANCE****FY 18 OBJECTIVES:**

- To complete the remaining 630 trees of the tree planting plan of planting 2,000 trees. This objective is tied to a capital appropriation approved by Town Meeting that funds the hiring of two interns and the purchase of equipment and trees.
- To continue Massachusetts Certified Arborist or International Society of Arboriculture training and certification for both members of the tree crew.
- To continue to work with the Shade Tree Committee to support the 1<sup>st</sup> Saturday of Month Tree Planting program by providing logistical support, materials, and training.
- To increase training of Grounds staff to be of better assistance to the Tree Crew during winter months.
- To continue implementing electronic work order reporting and tree inventory capacity.
- To continue improving coordination of park maintenance with the LSSE Department and public schools.
- To increase the care of plantings at the Parking Garage.
- To continue working with Amherst Baseball League volunteers to improve baseball fields.
- To improve the maintenance of the Town's three cemeteries.

**SERVICE LEVELS:**

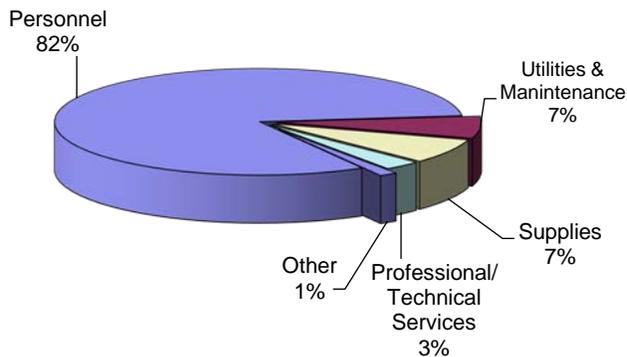
	<b>FY 12</b>	<b>FY 13</b>	<b>FY 14</b>	<b>FY 15</b>	<b>FY 16</b>
	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>	<b><u>Actual</u></b>
Burials	23	19	22	18	19
Grave Stones Repaired	0	0	2	2	6
Sale of Lots	10	8	6	6	2
Mowing: Community Field, Mill River Groff Park, Town Commons and all School Areas	42	42	42	42	42
Field Maintenance					
Baseball/Softball Field Maintenance	15	15	15	15	15
Football Fields	4	4	3	3	3
Soccer Fields	3	3	5	5	5
Field Hockey Fields	3	3	3	3	3
Lacrosse Field	4	4	4	4	4
Swimming Pools (LSSE)	3	3	2	2	2
Wading Pools (LSSE)	3	3	2	2	2
Picnic Areas	3	3	3	3	3
Parks & Commons	18	18	18	18	18
Litter Basket Pickup	3,100	3,100	3,100	6,679*	6,679
Tennis Courts	2	2	2	2	2
Basketball Courts	3	3	2	2	2
Building Maintenance	7	7	7	7	7
Youth Soccer Fields	1	1	1	1	1
School Frisbee Fields	3	3	3	3	3
Removal of public trees	296	112	134	121	250
Public shade trees planted	18	180	420	468	279
Public shade trees trimmed	940	200	286	271	366
Stump removal	5	7	22	44	91
Roadside brush cleaning (miles)	18	10	8	5	3
Banners erected & removed	36	37	44	37	34

## PUBLIC WORKS

## 4498: TREE AND GROUND MAINTENANCE

	FY 14 Actual	FY 15 Actual	FY 16 Actual	FY 17 Budget	FY 18 Manager	Change FY 17 - 18	Percent Change
Personnel Services	\$ 335,979	356,982	333,898	387,376	404,257	16,881	4.4%
Operating Expenses	\$ 99,064	93,474	82,416	90,016	90,016	0	0.0%
Capital Outlay	\$ 430	0	0	1,700	1,700	0	0.0%
<b>TOTAL APPROPRIATION</b>	<b>\$ 435,472</b>	<b>450,456</b>	<b>416,314</b>	<b>479,092</b>	<b>495,973</b>	<b>16,881</b>	<b>3.5%</b>
<b>SUPPLEMENTAL INFORMATION</b>							
Employee Benefits	\$ 201,024	184,161	206,210	199,919	224,694	24,775	12.4%
Capital Appropriations	\$ 190,000	178,561	115,000	20,000	145,500	125,500	627.5%
<b>TOTAL DEPARTMENT COST</b>	<b>\$ 826,496</b>	<b>813,178</b>	<b>737,524</b>	<b>699,011</b>	<b>866,167</b>	<b>167,156</b>	<b>23.9%</b>
<b>SOURCES OF FUNDS</b>							
Grave Openings	\$ 4,075	4,100	3,000	4,000	4,000	0	0.0%
Departmental Receipts	\$ 3,280	2,460	2,860	2,000	2,000	0	0.0%
Taxation	\$ 428,117	443,896	410,454	473,092	489,973	16,881	3.6%
<b>TOTAL RESOURCES</b>	<b>\$ 435,472</b>	<b>450,456</b>	<b>416,314</b>	<b>479,092</b>	<b>495,973</b>	<b>16,881</b>	<b>0.0%</b>
<b>POSITIONS</b>							
Full Time	7.50	7.50	7.50	7.50	7.50	0.00	
Part Time With Benefits	0.00	0.00	0.00	0.00	0.00	0.00	
Full Time Equivalents	7.50	7.50	7.50	7.50	7.50	0.00	

## MAJOR COMPONENTS:



Personnel Services provide salaries for a division director, a crew supervisor, 3 maintenance workers, a skilled laborer/truck driver a laborer, and a skilled laborer/truck driver which is shared with the Transportation Fund.

Utilities and Maintenance, \$33,226, include funds for lighting parks and commons (electricity for Community Field not included) and providing field, equipment, and building maintenance at picnic areas and other park facilities.

Supplies, \$37,147, include funds for fertilizer, gas and diesel fuel, and materials necessary to maintain equipment and clean park facilities.

Other provides funds for purchase or replacement of small equipment.

**SIGNIFICANT BUDGET CHANGES:**

Personnel Services reflect step and contract increases. Also included is \$3,575 for a promotion of a laborer to a skilled laborer/truck driver.

Operating expenses are level funded.

