

# **Enterprise Funds**

## **Section 8**



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### **Solid Waste Enterprise Fund Statement**

On January 1, 2003 the Town began a fee-based solid waste program commonly referred to as “Pay-As-You-Throw” (PAYT). The PAYT program is overseen by the Town Engineer and requires residents to use Town of Northborough designated trash bags in order to have their trash and recycling collected at curbside by the Town’s contractor. The PAYT program is operated as an enterprise fund intended to generate fee revenue to cover all solid waste and recycling collection and disposal costs previously provided within the tax base.

An enterprise fund, authorized by MGL Ch. 44 §53F½, is a separate accounting and financial reporting mechanism for municipal services for which a fee is charged in exchange for goods or services. It allows a community to demonstrate to the public the portion of total costs of a service that is recovered through user charges and the portion that is subsidized by the tax levy, if any. With an enterprise fund, all costs of service delivery—direct, indirect, and capital costs—are identified. This allows the community the option to recover total service costs through user fees. Enterprise accounting also enables communities to reserve as unrestricted the "surplus" or net assets generated by the operation of the enterprise rather than closing it out to the General Fund at year-end. Services that may be treated as enterprises include, but are not limited to, solid waste, water and sewer services.

### **Significant FY2016 Budget Changes or Initiatives**

The Solid Waste Enterprise Fund does not generate sufficient revenue to cover all its expenses. Total fee revenues are estimated in FY2016 to be \$488,000 and the expenses \$767,000, leaving a projected general fund subsidy of \$217,160 with a transfer from the Solid Waste Fund Free Cash of \$61,840. In FY2016, the appropriation will contain a \$10,000 Contingency Reserve account within the Solid Waste Fund to ensure adequate funding for the potential of an unforeseen event in the coming year.

In 2010, the Engineering Department issued an Invitation for Bids (IFB) for solid waste collection and recyclable materials collection and disposal. As part of this IFB, alternate prices were sought for a container-based program with single-stream recycling. In January of 2011, after much discussion and a significant amount of feedback from the residents, the Board of Selectmen voted to retain the current Pay-As-You-Throw (PAYT) program. As a result of the IFB, a significant savings in the collection cost is being realized. FY2016 will be the fifth and final year of this contract which set the collection costs at \$475,000 per year. This collection contract results in a significant savings of more than \$31,000 over the last year of the previous contract. As a result of the decision by the Board of Selectmen and the favorable prices in the contract, a \$217,160 General Fund subsidy is recommended in FY2016 in order to balance the Enterprise Fund. The total PAYT FY2016 budget is \$767,000. Following is a detailed explanation regarding overhead costs, projected waste tonnage tip fees, and collection cost.

**PAYT Revenues and Overhead Costs:**

The Town continues to offer two sizes of bags and anticipates the possibility of a significant increase in the cost of the bags from the manufacturer, due to the effect of increases in fuel costs and other factors affecting the resin used in the manufacture of the bags.

The bag fee was last revised in January of 2007 to better cover costs associated with the program and remains set at \$3.00/large bag and \$1.50/small bag. Additional fees were also created to help reduce the shortfall between revenues and expenditures. A fee of \$10 per box was instituted for the disposal of hazardous waste at the annual Household Hazardous Waste Day event in September of 2005. In addition, a sticker fee of \$10 per item for the disposal of large/bulky items set out at the curb was instituted in March of 2006.

During FY2015 the Massachusetts Department of Environmental Protection (DEP) restored some Grant programs which had been eliminated a number of years ago. The Town received \$3,200 as part of the Recycling Dividends Funds which provides payments to municipalities that have implemented specific programs and policies proven to maximize reuse, recycling and waste reduction. This money will be used to offset the cost of purchasing recycling bins.

The Town also received a grant for \$1,000 as part of the Sustainable Materials Recovery Program for recycling, composting, reuse and source reduction activities which will increase diversion of municipal solid waste and household hazardous waste from disposal. This grant will be utilized to offset the cost of producing and mailing the recycling calendar to each household in June. Due to the possibility of future state budget cuts the Solid Waste budget also includes \$4,000 to cover these costs in FY2016.

In an effort to minimize additional staff workload the Town continues to contract with Niman Paper Supply for the warehousing and distribution of trash bags and bulk item labels to the authorized retailers. The distribution cost is \$.02 per bag or label. Total projected FY2016 overhead costs for the Pay-As-You-Throw program (purchase of bags, stickers and their distribution) is estimated at \$75,000.

As a result of some reorganization of the drop off area at the Public Works Garage, the Solid Waste budget will now include the cost of removing and disposing all yard waste material dropped off annually, the total cost for disposal of all yard waste is estimated to be \$50,000 for FY 2016.

**Disposal Costs and Projected Tip Fee:**

In 2006 the Town of Northborough entered into a 20 year agreement for the disposal of solid waste with Wheelabrator Millbury, Inc. As part of this agreement, all parties were given the option to terminate the agreement as of December 31, 2017 provided notice of such termination is submitted in writing to the other party no later than December 31, 2015. This past summer, in preparation for this upcoming milestone in the agreement, the Town began discussions with Wheelabrator Millbury, Inc. to determine their intentions regarding the remainder of the agreement. As a result of these early negotiations the Town will now see some savings from the previous contract going forward for the remainder of the 20 year contract.



The new tipping fee, as of January 1, 2015, is \$64.00/ton and will remain constant for the next 18 months moving forward until June 30, 2016 (the previous tipping fee which was in effect from July 1, 2014 to December 31, 2014 was \$75.66/ton). Then in FY2017 the tipping fee will increase to \$66.00/ton for 12 months. The first CPI adjustment will then occur on July 1, 2017 (FY2018) and will be based on the March 2017 CPI. The tip fee will then be adjusted by  $\frac{3}{4}$  of the change in the CPI, which is the same formula we had in the previous contract, and will be adjusted annually in July for the remaining term of the agreement, which are also the same terms included in the previous disposal contract.

### **Projected Tonnage for FY2016:**

Actual tonnage for the last 12 months (calendar year 2014) is 2104 tons (which is actually a 10.3% increase from the previous 12 months). Based on the number of new building permits for single family homes during the last 12 months, the growth rate for this year was  $23 \text{ new units} \div 4895 \text{ existing homes} = 0.5\%$ . Projected Tonnage:  $(2104 \times 1.005) = 2115$ , which is rounded up to 2200 tons for budgeting purposes.

### **Collection Costs:**

On July 1, 2011 the Town began a five year contract with Central Mass Disposal, Inc.(CMD) of Auburn, Massachusetts for solid waste and recycling collection. In March of 2012, CMD was subsequently bought out by Allied Waste Services, Inc., who is honoring the original contract the Town signed with CMD which held collection costs in each of the remaining four years to be the same price with no increase. The FY2016 total collection contract cost of \$475,000 includes \$265,000 for Trash Collection and \$210,000 for Recycling Collection and Disposal.

## Section 8-4

## Solid Waste Enterprise Fund



		FY2012	FY2013	FY2014	FY2015	FY2015	FY2016
		ACTUAL	ACTUAL	ACTUAL	BUDGETED	SIX MONTHS	PROPOSED
<b>SOLID WASTE ENTERPRISE FUND</b>							
<b>Expenses</b>	<b>Services</b>						
52810	Unclassified	22,492	55,829	21,647	91,200	56,988	141,200
52910	Trash Collection/Hauler	474,390	475,247	485,075	475,000	237,500	475,000
57810	Trash Disposal-Wheelabrator	147,454	140,870	142,470	138,960	62,970	140,800
59810	Extra Ordinary & Unforeseen Exp	0	0	0	50,000	0	10,000
	<b>SUBTOTAL</b>	<b>644,336</b>	<b>671,946</b>	<b>649,193</b>	<b>755,160</b>	<b>357,458</b>	<b>767,000</b>
<b>TOTAL:</b>	<b>SOLID WASTE</b>	<b>644,336</b>	<b>671,946</b>	<b>649,193</b>	<b>755,160</b>	<b>357,458</b>	<b>767,000</b>

### Additional Solid Waste Budget Detail

#### Unclassified :

Newsletter, training and misc. supplies:	\$4,000
Disposal of illegal dumping:	\$2,000
Household Hazardous Waste Day:	\$10,000
Pay-As-You-Throw costs:	\$75,000
Disposal of Yard Waste	\$50,000
SWANA Membership	\$100
SWANA Meetings	\$100
Sub-total	\$141,200

#### Solid Waste & Recycling Collection – Allied Waste Services :

Trash Collection:	\$265,000
Recycling:	\$210,000
Sub-total	\$475,000

#### Trash Disposal - Wheelabrator Millbury, Inc.:

7/1/15 - 6/30/16: 2200 tons x \$64.00/ton	\$140,800
Sub-total	\$140,800

Contingency Reserve	\$ 10,000
Sub-total	\$ 10,000

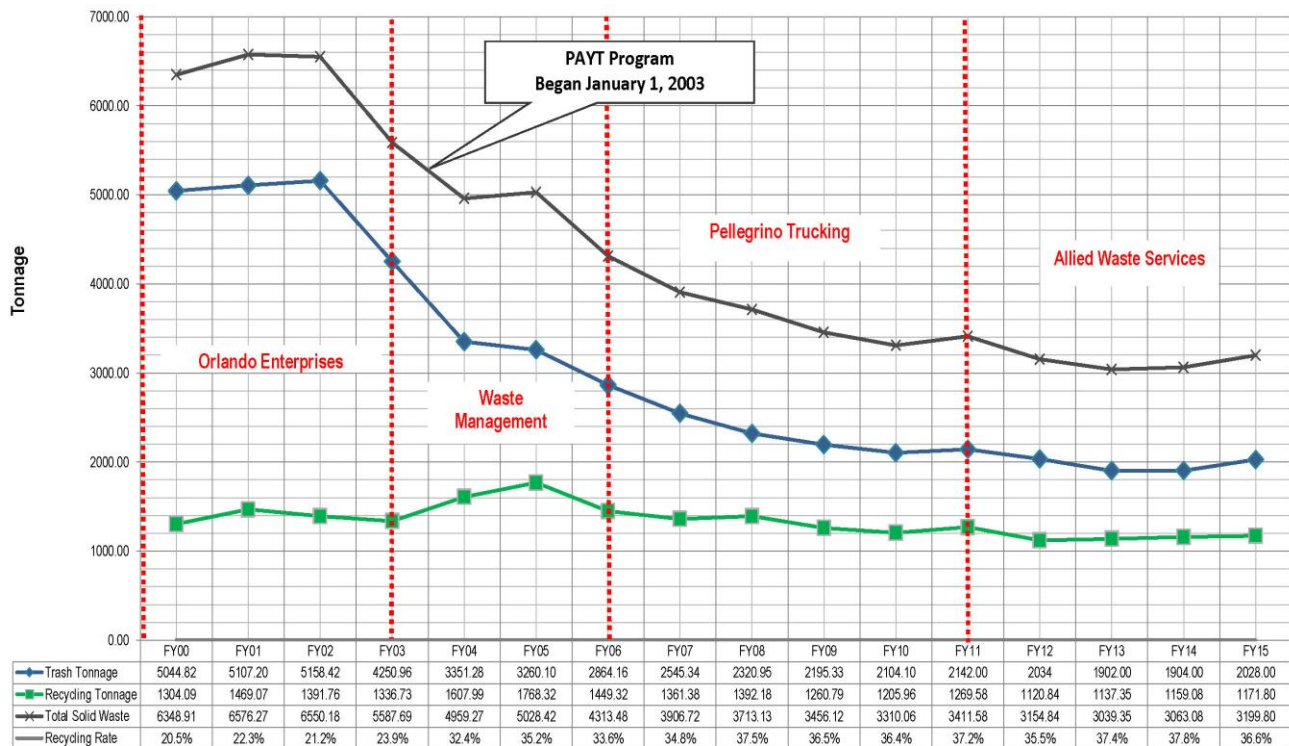
**Grand Total      \$767,000**



## Solid Waste Enterprise Fund

## Section 8-5

### Waste & Recycling Trends from FY2000 to FY2015



\* Estimated Totals Based on 6 Months Actual Data

Since its inception on January 1, 2003 the PAYT program has provided significant incentive to participants to reduce waste and increase recycling. Trash went from a high of 5,158 tons in FY2002 steadily downward to 1,902 tons in FY2013 and has only recently started to increase slightly. In addition, recycling rates have risen from 21% in FY2002 to approximately 38% in FY2013 and are holding steady. The difference between the 5,158 tons of trash in FY 2002 and the 2,028 tons of trash projected to be disposed in FY2015 is 3,130. In FY2016 that difference, multiplied by the disposal rate of \$64.00/ton, represents approximately \$200,320 in cost avoidance. This cost avoidance will become increasingly more important as disposal costs continue to rise in the future.



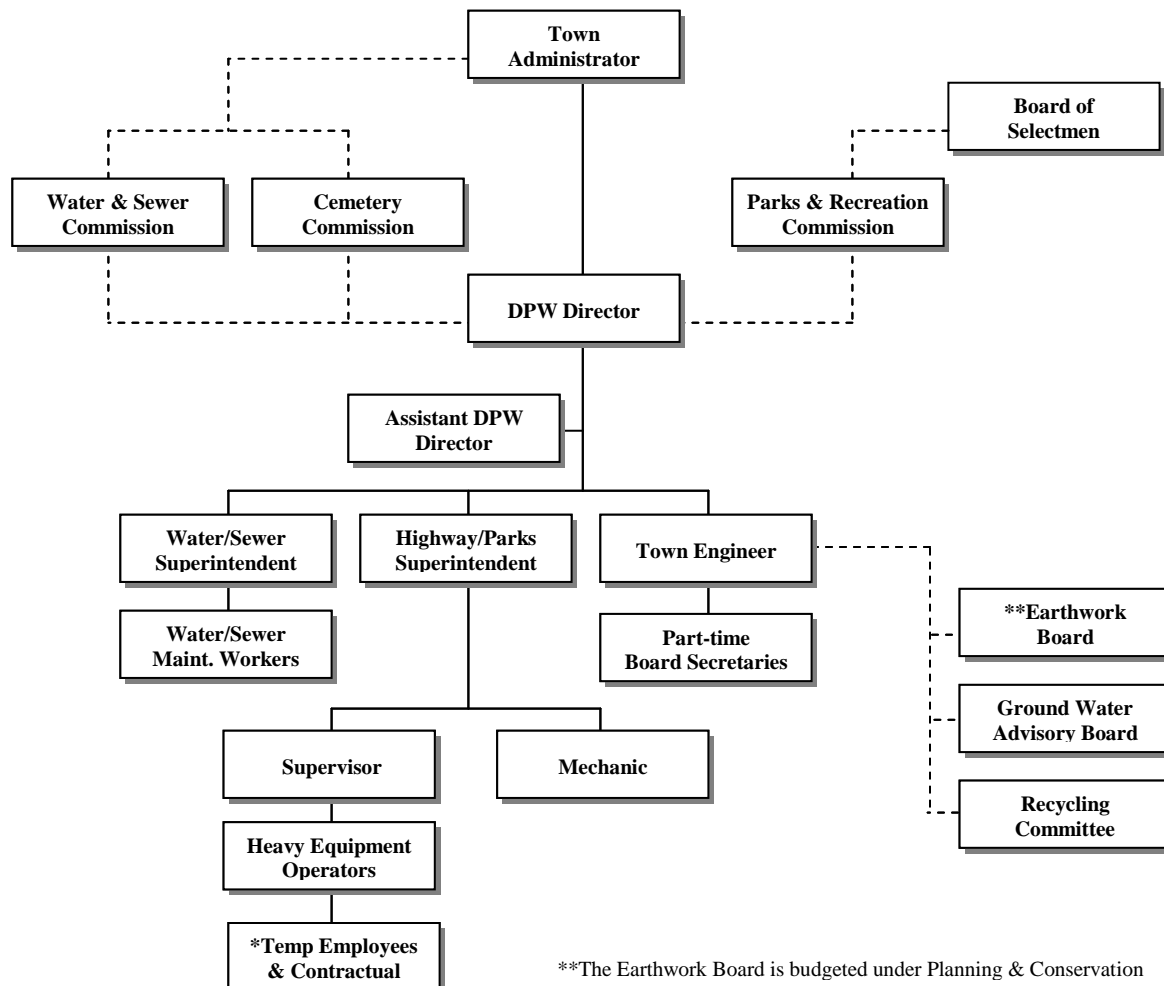
### Water & Sewer Enterprise Funds

The Water and Sewer Divisions operate, maintain and develop the Town's public water and sewer systems and related facilities. The Water and Sewer Divisions are operated as enterprise funds. Briefly, an enterprise fund as authorized under MGL Ch. 44 §53F½ is a separate accounting and financial reporting mechanism for municipal services for which a fee is charged in exchange for goods or services. It allows a community to demonstrate to the public the portion of total costs of a service that is recovered through user charges and the portion that is subsidized by the tax levy, if any. With an enterprise fund, all costs of service delivery—direct, indirect, and capital costs—are identified. This allows the community to recover total service costs through user fees if it chooses. For purposes of providing a departmental overview, personnel summary and goals/objectives, the Water & Sewer Divisions are included within Department of Public Works (DPW) Section 4 of the budget. The actual line item budgets associated with the Water and Sewer enterprise funds are contained here in Section 8 of this budget document.

### Water & Sewer Commission

In addition to the DPW staff, the Water & Sewer Commission provides advisory oversight to the enterprise funds. The Water & Sewer Commission consists of three members appointed by the Town Administrator for three-year terms. The Commission is responsible for the development of policies, fees, rules and regulations pertaining to the care, superintendence, development and management of the Town's water supply and facilities and the Town's sewerage system. The DPW Director serves as the staff liaison to the Water & Sewer Commission.

### DPW Organizational Chart



\*\*The Earthwork Board is budgeted under Planning & Conservation





### Background on the Northborough Water System

Northborough's Water System was first authorized by the State Legislature in 1882. A small portion of Town was originally served from the Northborough Reservoir located in Shrewsbury and Boylston before it was taken out of service in 1955. The connection to what is now called the Massachusetts Water Resources Authority (MWRA)<sup>1</sup> was initiated in 1954. The Town's four wells came online later. The Brigham Street well was brought online in 1956; the Lyman Street well was brought online in 1964; the Crawford Street well was brought online in 1969; and the Howard Street well was brought online in 1994.

In the past, the Town operated its own wells and supplemented production from the wells with water purchased from the MWRA. The MWRA water was originally provided directly from the Wachusett Aqueduct. When the Wachusett Aqueduct was shut down for repair in 2000, the water provided by the MWRA to the Town came through a connection in Bartlett Street. This is connected to the new MWRA Carroll Water Treatment facility in Marlborough.

From 2000 to 2009, all the Town's water was being purchased from the MWRA because the well water was chemically incompatible with the water being provided by the MWRA. The Town well water has a pH of 6.5, and the new MWRA water source has a pH of 9. The higher pH in the MWRA water causes the Town's well water to drop the naturally occurring iron and manganese out of solution and turn the water red.

To address requirements of the Safe Drinking Water Act and to make the Town's water compatible, treatment alternatives were evaluated. The Town's consultant designed a new chemical addition facility at the Lyman Street well which the Town subsequently built. The Lyman Street well was reactivated in 2009 and produced approximately 225,000 gallons per day of the necessary 1 million gallons per day of average daily water usage in Northborough. Unfortunately, in June 2011, routine testing of the Lyman Street well indicated the presence of bacteria and the well was taken offline.

The Town recently contracted with an engineering consultant to evaluate the Town's water needs. The evaluation will use historical population data and regional studies to project future water system demands for a 20-year period. Raw and finished water quality data will be reviewed to determine required improvements for treatment facilities to comply with current and future drinking water standards. These local well supplies will be contrasted with MWRA interconnections and a cost-benefit analysis will be performed to see if the Town should:

- Utilize the Town's existing wells (and possibly additional subsurface supplies through exploration) with added treatment facilities to meet the water consumption demands,
- Utilize the Town's existing wells along with MWRA interconnection for summer peak demands, or
- Utilize MWRA interconnection for all water supply needs.

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<sup>1</sup> MWRA is the Massachusetts Water Resources Authority. It is a public authority established by an enabling act enacted in 1984. The enabling act is Chapter 372 of the Acts of 1984. MWRA is an independent authority that provides wholesale water and sewer services to its customer communities, and funds its operations primarily through user assessments and charges. The MWRA was created by the legislature in 1984 and inherited operations and facilities beginning in 1985 from the Metropolitan District Commission, a century-old department of state government.

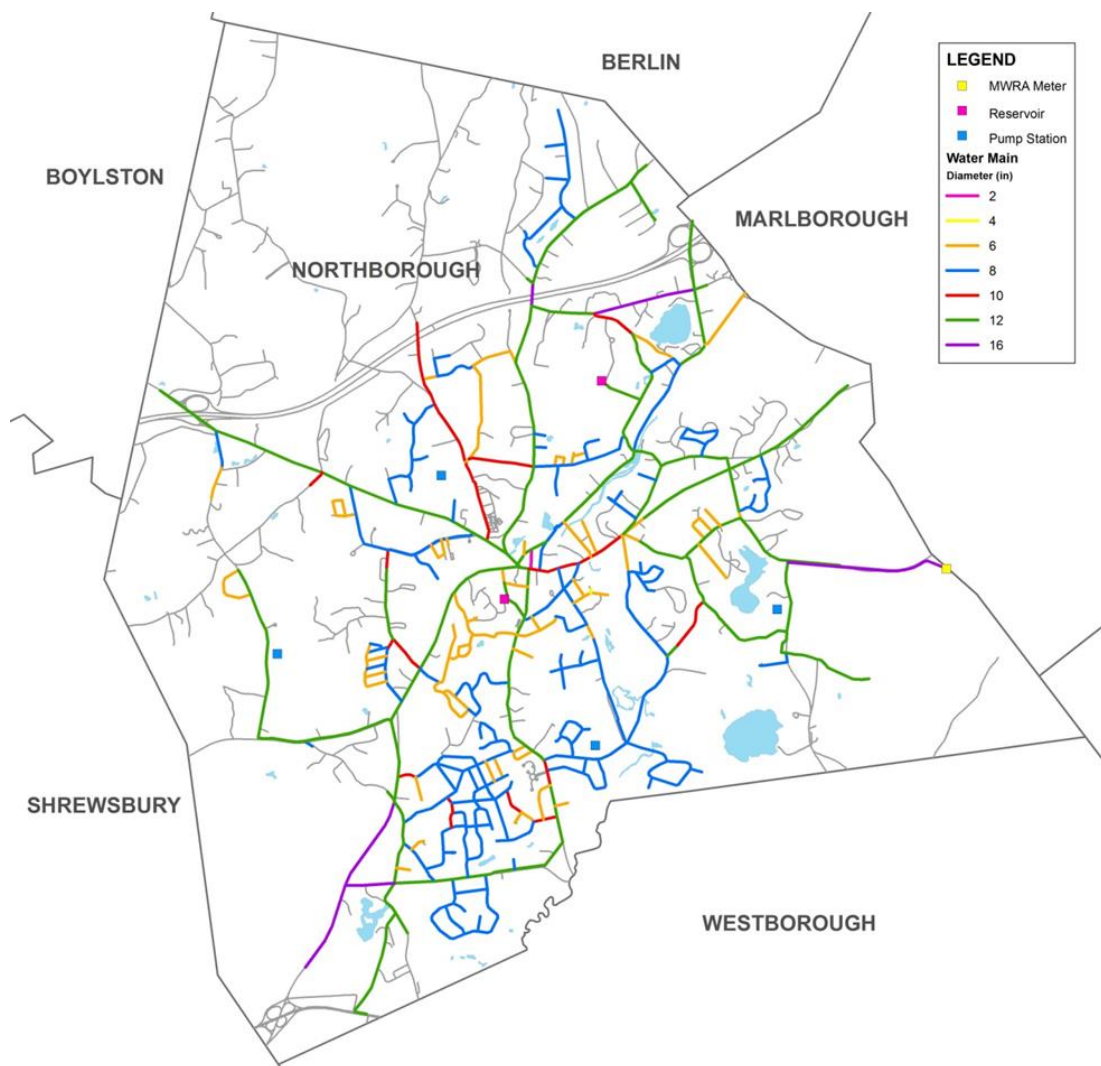


In order to fully determine which of the three options outlined above would be the best option for the town, a water system master plan was prepared. This master plan focused on the entire potable water system and its ability to provide the Town with the most cost effective method of delivering safe, clean potable water to the residents. The study included reviewing sustainable sources of water supply as well as evaluating the current distribution model, calibrating the model and calculating storage and system operating pressures.

The evaluation determined that while our distribution system is basically sound, the town-owned wells cannot supply the current water demand of an average of 0.87 million gallons per day (MGD) and a maximum or peak demand of 1.73 MGD. The town is capable of pumping 1.02 MGD but we are limited by the Department of Environmental Protection to withdrawal of only 0.74 MGD from the aquifer. As of this writing, the various options are still under review and a preferred supply model has not yet been determined.

Approximately 80% of the Town receives water from the public water supply system. The map below shows the water system service area.

**Northborough Water System Map**





## Water & Sewer Enterprise Funds

## Section 8-9

### Significant FY2016 Budget Changes or Initiatives

The FY2016 Water Enterprise Fund is budgeted at \$2,230,328 which is an increase of \$55,818 or 2.6%. This increase is due to a number of factors including the additional assessment from the MWRA based on the Town's water usage as well as the restoration of the Assistant Public Works Director position, which was cut from the budget during the recent recession. Thirty percent of the Assistant Director salary is funded through the Water Enterprise Fund.

In the second quarter of FY2014, a base charge was added to each water account. This change in the billing structure was necessary to recover a portion of the fixed costs that are paid from the enterprise funds such as debt, meter reading, billing and collection regardless of the amount of water usage.

The most important initiative for the DPW Water Enterprise Fund is the successful implementation of the Capital Improvement Plan. This plan is the result of a holistic approach to infrastructure management. It includes a complete meter replacement and billing system upgrade, water service line and hydrant replacement program as well as repairs to the water tanks.

	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 BUDGETED	FY2015 SIX MONTHS	FY2016 PROPOSED
<b>WATER ENTERPRISE FUND</b>						
<b>Personnel Services</b>						
<sup>2</sup> 51010 Full-time Wages	138,007	139,449	144,348	160,443	72,524	153,744
<sup>3</sup> 51100 Full-time Salary	19,492	31,825	33,108	34,110	16,835	62,357
<sup>4</sup> 51120 Full-time Permanent wages	31,829	31,153	34,133	34,866	19,544	35,647
<sup>5</sup> 51130 W&S Commissioner Stipends	1,080	1,080	1,080	1,080	0	1,080
<sup>6</sup> 51135 GIS Salary	12,000	12,000	12,000	12,731	12,000	13,113
51300 Overtime	36,638	32,588	32,695	40,111	17,296	38,436
51410 Longevity Pay	1,590	1,635	1,815	1,905	1,425	1,560
51970 Stipends	1,020	1,020	850	850	0	850
51920 Uniforms	1,751	1,609	1,800	2,250	675	1,800
<b>SUBTOTAL</b>	<b>243,407</b>	<b>252,359</b>	<b>261,829</b>	<b>288,346</b>	<b>140,298</b>	<b>308,587</b>

<sup>2</sup> Line 51010 represents the 60% of the Water/Sewer Supervisor salary as well a 60% of the Water/Sewer Maintenance Workers' wages. The other 40% of these personnel expenses are included in the Sewer Enterprise Fund budget.

<sup>3</sup> Line 51100 represents 30% (12 hrs per week) of the DPW Director and Assistant Director salaries. Another 20% is reflected in the Sewer Enterprise Fund Budget and the balance (50%) is included in the DPW budget Section 4 of this document.

<sup>4</sup> Line 51120 represents 24 hours per week of an Administrative Assistant

<sup>5</sup> Line 51130 represents the three Water & Sewer Commissioners receive \$600 each per year, split 40% ( \$720) Sewer Fund Budget and 60% (\$1,080) Water Fund Budget

<sup>6</sup> Line 51135 represents 14.3% (6 hours per week) of the GIS Director's time supporting the Water Enterprise fund. Another 9.5% (4 hours per week) is reflected in the Sewer Enterprise Fund Budget.

## Section 8-10

## Water & Sewer Enterprise Funds



	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 BUDGETED	FY2015 SIX MONTHS	FY2016 PROPOSED
<b>WATER ENTERPRISE FUND</b>						
<b>Expenses</b>						
51710 Workers' Compensation	8,122	8,122	8,366	8,617	8,617	8,876
51730 F.I.C.A.	3,414	3,836	3,836	3,836	3,836	4,453
51740 Life Insurance	88	88	88	88	88	88
51750 Health Insurance	44,362	50,274	42,083	43,828	43,828	39,828
52110 Utilities	13,887	10,532	1,802	15,100	3,896	15,233
52610 Building Maintenance	1,919	3,843	1,592	3,000	1,008	4,000
52620 Equipment Maintenance	13,105	5,625	11,489	18,000	3,704	18,000
52800 Contractual Services	59,784	15,056	30,189	86,000	29,752	91,100
52850 Audit	1,680	1,731	1,765	1,801	1,801	1,837
53020 Legal Services	2,378	1,408	963	9,000	883	9,000
53110 Printing	5,477	5,880	7,326	8,400	3,127	8,400
53170 Water Analysis	7,624	6,802	6,365	47,500	0	18,500
53190 Training	3,803	4,586	8,853	6,000	313	8,325
53410 Telephone	0	0	1,566		0	0
54290 Office Supplies	198	2,925	1,513	500	1,953	1,000
54350 Howard Street Well	0	0	0	0	0	0
54370 Private Work	0	0	93	0	0	0
54380 Brigham Street Well	0	0	14	0	0	0
54390 MWRA Assessment	747,515	883,028	1,024,847	1,054,648	522,340	1,103,542
54400 Lyman Street Well	0	0	2,609	0	0	0
54410 Crawford Street Well	0	0	304	0	0	0
54420 Distribution of Materials	49,116	25,329	16,057	81,300	26,514	93,300
54820 Gasoline	9,650	9,650	9,939	10,238	10,238	10,545
54840 Natural Gas	0	0	3,540	0	0	0
55990 Chemicals	0	0	0	20,000	0	0
56220 Worcester Regional Retirement	29,372	31,786	32,609	34,324	34,324	37,175
57110 Travel/Mileage	71	348	223	360	0	600
57310 Dues	0	0	488	0	0	0
57340 Meetings	0	0	0	0	0	0
57410 Liability/Building Insurance	14,062	14,062	14,360	14,791	14,791	15,235
57810 Unclassified	0	0	0	0	0	0
59810 Extraordinary and Unforeseen	0	0	0	75,000	0	75,000
59990 Other Financing Uses	59,786	0	39,000	0	0	0
<b>SUBTOTAL</b>	<b>1,075,414</b>	<b>1,084,911</b>	<b>1,271,879</b>	<b>1,542,331</b>	<b>711,013</b>	<b>1,564,037</b>



## Water & Sewer Enterprise Funds

## Section 8-11

	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 BUDGETED	FY2015 SIX MONTHS	FY2016 PROPOSED
<b>WATER ENTERPRISE FUND</b>						
<b>Expenses (Debt Service)</b>						
59100 Principal / Long Term Debt	361,524	308,700	278,770	253,000	15,000	244,000
59150 Interest / Long Term Debt	112,730	101,381	95,368	85,947	43,161	77,204
59270 Interest / Temporary Loans	0	2,785	0	4,886	0	36,500
<b>SUBTOTAL</b>	<b>474,254</b>	<b>412,866</b>	<b>374,138</b>	<b>343,833</b>	<b>58,161</b>	<b>357,704</b>
<b>TOTAL: WATER ENTERPRISE FUND</b>	<b>1,793,074</b>	<b>1,750,136</b>	<b>1,925,935</b>	<b>2,174,510</b>	<b>909,741</b>	<b>2,230,328</b>

## Section 8-12      Water & Sewer Enterprise Funds

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### **Background on the Northborough Sewer System**

The Town operates a collection system of sewer pipes that bring sewerage to the City of Marlborough's Westerly Wastewater Treatment Plant where it is treated and discharged into the Assabet River. When the sewer system was started in the mid 1960's it was designed to service only the central portion of Town. While sewer pipe installation did not start until the 1970's, in 1964 land was purchased for a Northborough sewage treatment plant on Boundary Street.

In the late 1960's when the Town of Northborough attempted to obtain approvals from the Massachusetts Department of Environmental Protection (DEP) and the Federal Environmental Protection Agency (EPA) regulators for a sewerage treatment plant, the Town was told that since Marlborough was building a plant across Boundary Street, that the regulators would not allow two plants across the street and side-by-side with each other on the river. As a result, the Town of Northborough was required to become a tenant in the Marlborough Westerly Wastewater Treatment Plant by entering into an Intermunicipal Agreement with the City of Marlborough for sewerage treatment.

In 1970, the Town of Northborough entered into the first of two twenty-year agreements with Marlborough for 800,000 gallons per day. The Marlborough Westerly Plant has a design capacity of 2.89 million gallons per day (MGD). Therefore, Marlborough's portion is 2.09 MGD and Northborough's is 0.80 MGD. While our sewer pipe installation has continued into the present in accordance with a Master Plan initially generated in the early 1980's, the Town's sewer capacity at the Westerly Plant has not changed since the original 1970 agreement. It has remained at 0.80 MGD for forty years.

### Sewer service area and future capacity needs

In the late 1970's the Town hired the engineering firm of Camp Dresser & McKee (CDM) to begin developing the sewer system and mapping out the sewer service area for the Town. It was estimated that the sewerage to be contributed by the users in the original sewer service area would use the full 0.80 MGD of sewer capacity. Therefore, as long as the Town's capacity at the treatment plant remains at 0.80 MGD, it cannot provide sewer to any other parts of Town currently outside of the sewer service area.

During 2000, CDM updated the sewer service area and determined that there was only 50,000 gpd of sewer capacity for development of the southeast and southwest industrial areas. The Avalon Bay/Northborough Crossing development is projected to use 130,000 gallons per day of sewer capacity. Not only does this use up the 50,000 gallons per day allocated for industrial development, but it also uses 80,000 gallons per day more of capacity previously targeted for existing residential areas in Town. Therefore, it is critical for the Town to pursue additional capacity at the Marlborough Westerly Wastewater Treatment Plant. Should the Town not be successful in getting additional capacity, the amount of capacity previously designated for users within the sewer service area will need to be reduced by 80,000 gallons per day to stay within our 0.80 MGD.

### Assabet Consortium Study

In 2000, Town Meeting authorized \$500,000 to study the Town's current sewer needs through the Assabet River Consortium Study. The Assabet Consortium Study is a collaboration of the six towns whose sewerage treatment plants discharge to the Assabet River; these include Northborough, Marlborough, Westborough, Shrewsbury, Hudson and Maynard. As part of the discharge permit for each sewerage treatment plant (there are four) each Town must produce a





study that evaluates the effect of the treatment plant's discharge on the Assabet River. The engineering firm of Fay, Spofford & Thorndike (FST), was hired to do the study for the Town of Northborough. FST inventoried the Board of Health records for septic system failures, excessive pumping, Building Department records for building construction, soils maps, zoning and other applicable files and information to calculate the sewer capacity necessary to service the entire Town of Northborough. They determined that the Town, including existing users, would need 1.25 million gallons of sewer capacity per day. This means that there is not enough capacity in the existing sewage treatment plant for the Town to provide sewer to every area that needs it. Marlborough's consultant determined that Marlborough also needed additional capacity. Between Northborough & Marlborough the total sewage treatment capacity needed is 4.15 million gallons per day. With the plant capacity permitted for 2.89 MGD, the deficit is 1.26 MGD.

Through the Assabet Consortium Study process, the DEP and EPA originally informed the Town that no additional flows would be permitted into the Assabet River. Therefore, the additional 1.15 MGD of capacity necessary for Northborough and Marlborough must be handled by infiltrating it into the ground through subsurface discharge. Even though the effluent water is treated to just about drinkable standards, the DEP and EPA goal is to replenish the ground water rather than let it flow away down the river.

### Haitsma Property Acquisition

At the August 10, 2004 Special Town Meeting the Town opted to purchase, through the Chapter 61A tax relief statute, the Haitsma farm at 455 Main Street. The primary purpose of this land was to serve future sewer utility expansion, thus allowing proper build-out and economic development of the Town. According to the Town's consultants, the additional 1.5 million gallons per day of sewer capacity could be achieved through subsurface disposal on the Haitsma property, if needed. However, the cost would be significantly higher than discharging to the river. Consultants for Marlborough and Northborough proposed putting all the additional flows into the river because of the negative environmental impact of clearing all the land necessary to put the additional flows into the ground as well as the additional energy costs of the subsurface disposal.

### Status of the Marlborough Westerly plant expansion

On November 16, 2009, after spending more than 8 years working with both the State DEP and Federal EPA, the National Pollutant Discharge Elimination System (NPDES) Permit modification for the Marlborough Westerly Treatment Plant was finally granted. This is the permit that allows the Westerly Treatment Plant additional flow into the Assabet River, instead of more expensive alternatives such as subsurface disposal on the Haitsma property. The NPDES permit modification also included significant and expensive upgrades to water treatment, particularly with regard to phosphorus discharge limits.

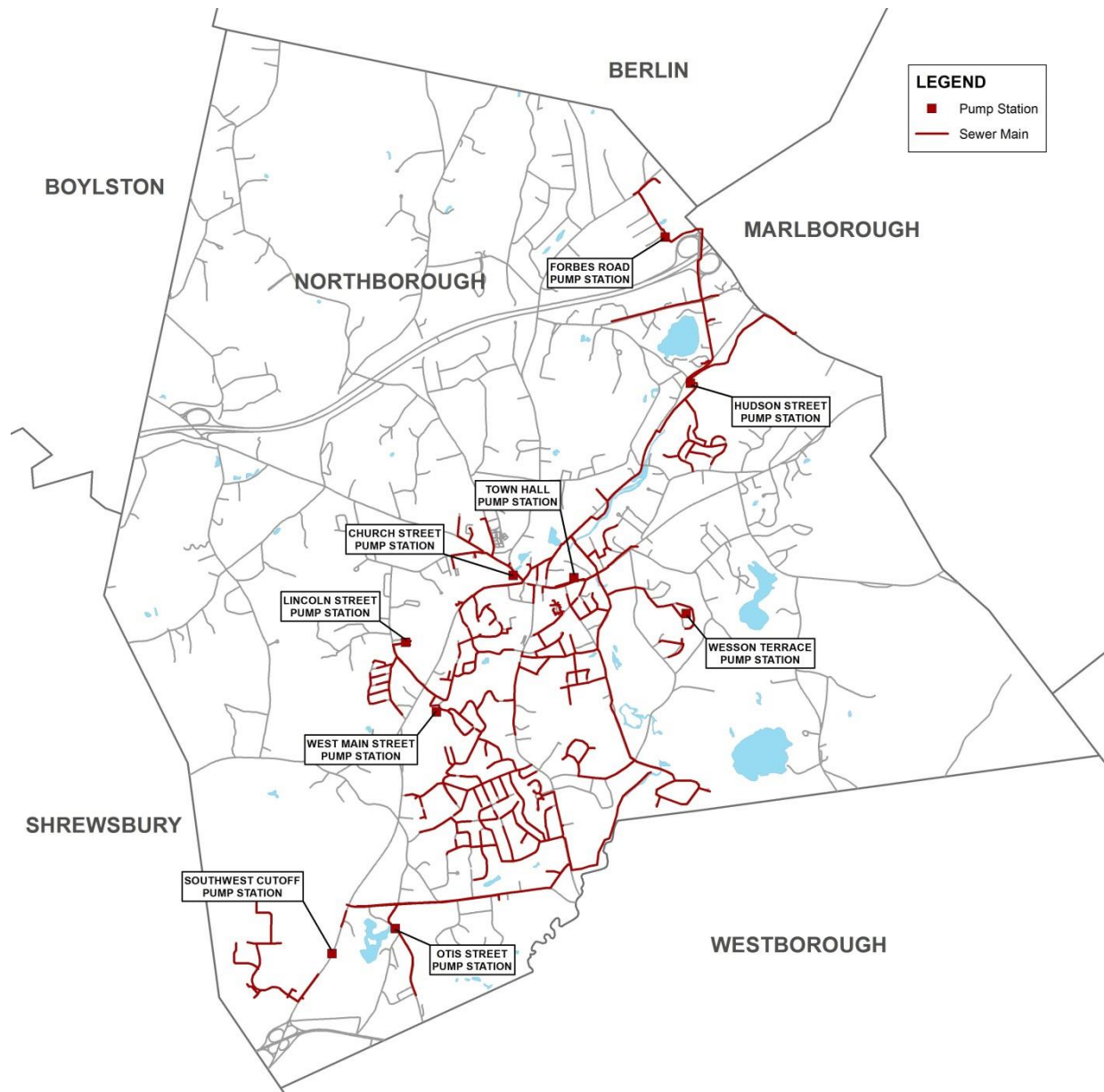
Unfortunately, after granting the increase in flow, the EPA abruptly and unexpectedly decided to rescind the NPDES permit on February 23, 2010. However, since the granting of the permit, Marlborough has completed the \$30 million expansion and upgrades to the plant and although the plant is seeing great results on the quality of the effluent, it is coming at a significant increase in operational costs. Under the proposed Inter-municipal Agreement, the Town of Northborough will owe 30% of the cost of construction. It remains to be seen how the issue of additional capacity will be resolved, but the EPA has indicated that it intends to take up the matter as part of the renewal process for the existing NPDES permit for the Marlborough Westerly Plant.

## Section 8-14 Water & Sewer Enterprise Funds



Approximately 30% of the Town has access to the sewer wastewater system. The map below shows the sewer system service area.

**Northborough Sewer System Map**







## Water & Sewer Enterprise Funds

## Section 8-15

### Significant FY2016 Budget Changes or Initiatives

The FY2016 Sewer Enterprise Fund is budgeted at \$1,658,942 which is an increase of \$64,671 or 4%. This increase is due mostly to the restoration of the Assistant Public Works Director position, which was cut from the budget during the recent recession. Twenty percent of the Assistant Director salary is funded through the Sewer Enterprise Fund.

The critical issue facing the DPW Sewer Enterprise Fund continues to be the acquisition of the NPDES permit modifications necessary for additional capacity at the Marlborough Westerly Wastewater Treatment Facility. With construction completed, we continue to plan for both the additional capacity as well as the significant sewer rate impact for Northborough's share of this \$30 million expansion project. In the second quarter of FY2014, the sewer rates were increased by 20%. Our current estimate is that sewer rates will continue to rise in coming years in order to finance the project.

	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 BUDGETED	FY2015 SIX MONTHS	FY2016 PROPOSED
<b>SEWER ENTERPRISE FUND</b>						
<b>Personnel Services</b>						
51010 Full-time Wages	92005	92,966	96,232	106,962	48,349	102,496
51100 Full-time Salary	12995	21,216	22,072	22,740	11,223	41,572
51120 Full-time Permanent wages	21219	20,769	22,755	23,244	13,029	23,765
<sup>7</sup> 51130 W&S Commissioner Stipends	720	720	720	720	0	720
51135 GIS Salary	8000	8,000	8,000	8,488	8,000	8,742
51300 Overtime	24425	21,725	20,939	26,741	11,530	25,624
51410 Longevity Pay	1060	1,090	1,210	1,270	950	1,040
51970 Stipends	680	680	950	950	0	950
51920 Uniforms	1033	1,122	1,200	1,500	450	1,200
<b>SUBTOTAL</b>	<b>162,137</b>	<b>168,289</b>	<b>174,078</b>	<b>192,615</b>	<b>93,532</b>	<b>206,109</b>

<sup>7</sup> Line 51130 represents the three Water & Sewer Commissioners receive \$600 each per year, split 40% ( \$720) Sewer Fund Budget and 60% (\$1,080) Water Fund Budget

## Section 8-16 Water & Sewer Enterprise Funds



	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 BUDGETED	FY2015 SIX MONTHS	FY2016 PROPOSED
<b>SEWER ENTERPRISE FUND</b>						
<b>Expenses</b>						
51710 Workers' Compensation Ins.	5415	5,415	5,577	5,745	5,745	5,917
51730 F.I.C.A.	2275	2,813	2,813	2,813	2,813	2,978
51740 Life Insurance	59	59	59	59	59	59
51750 Health Insurance	29575	33,516	28,055	29,219	29,219	26,552
52110 Utilities	28419	29,565	30,734	42,000	12,047	46,561
52310 Marlborough Use Charge	169445	188,734	383,267	479,767	156,826	527,744
52600 Building Maintenance	16327	10,001	5,438	15,000	2,285	15,000
52620 Equipment Maintenance	5429	3,901	10,046	36,200	2,898	42,200
52800 Contractual Services	766	19,679	6,347	25,000	9,386	31,000
52850 Audit	1120	1,154	1,177	1,201	1,200	1,225
53020 Legal Services	3902	3,075	1,498	5,000	2,053	5,000
53080 Consultants/Studies	0	0	0	0	0	0
53110 Printing	3409	3,920	4,884	5,600	2,084	5,600
53170 Testing	1610	1,785	1,610	1,800	805	2,000
53190 Training, Dues and Licenses	0	31	948	1,720	0	3,240
53410 Telephone	0	0	3,600	0	0	0
54290 Office Supplies	0	2,091	1,008	500	1,302	1,000
54420 Distribution of Materials	3742	6,505	506	43,100	15,081	43,100
54820 Gasoline	6500	6,500	6,626	6,825	6,825	7,030
55990 Chemicals	0	0	0	0	0	0
56220 Worcester Regional Retirement	19583	21,192	21,741	22,885	22,885	24,786
57110 Mileage	47	210	138	240	0	400
57410 Liability/Building Insurance	9175	9,175	9,574	9,862	9,862	10,158
57810 Unclassified	0	0	0	0	0	0
59810 Extraordinary and Unforeseen	0	0	0	75,000	0	75,000
<b>SUBTOTAL</b>	<b>306798</b>	<b>349,322</b>	<b>525,648</b>	<b>809,536</b>	<b>283,375</b>	<b>876,550</b>



## Water & Sewer Enterprise Funds

## Section 8-17

	FY2012	FY2013	FY2014	FY2015	FY2015	FY2016
	ACTUAL	ACTUAL	ACTUAL	BUDGETED	SIX MONTHS	PROPOSED
<b>SEWER ENTERPRISE FUND</b>						
<b>Expenses (Debt Service)</b>						
59100 Principal / Long Term Debt	444638	434,843	430,209	445,000	220,979	439,479
59150 Interest /Long Term Debt	209904	195,434	180,889	146,718	86,473	129,204
59270 Interest / Temporary Loans	0	0	0	402	0	7,600
<b>SUBTOTAL</b>	<b>654542</b>	<b>630,277</b>	<b>611,097</b>	<b>592,120</b>	<b>307,452</b>	<b>576,283</b>
<b>TOTAL: SEWER ENTERPRISE FUND</b>	<b>1123476</b>	<b>1,222,888</b>	<b>1,449,409</b>	<b>1,594,271</b>	<b>684,538</b>	<b>1,658,942</b>



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