

# PUBLIC SERVICES, FACILITIES & EDUCATION

*Data collected from Municipal budget, Capital Improvements Plan, Department of Revenue*

## FACTS

### 1. MUNICIPAL BUDGET (from Mayor Tautznik's budget message)

With a total budget increase projected at more than \$2.3 million dollars above the initial current-year appropriation level, the FY2007 budget marks the first solid year of fiscal recovery since the unprecedented reductions in state aid that began in January 2003. Unfortunately when adjusted for inflation, the total available revenue capacity remains more than one million dollars below FY 2002, preventing the City from funding a full return of past services and capacities. In keeping with historic financial practices, the proposed FY2007 budget maintains the posture of maximizing local receipts where possible, fully supporting enterprise operations within projected water and sewer rate charges, and increasing local tax revenues to the full extent permitted under state law.

Total recurring revenues to support the operation of the City have finally started to rebound. New

Local property taxes, accounting for more than \$15 million in the projected budget, are the single largest source of funding for the city. The FY2007 budget will propose to increase property taxes the full 2.5 % allowed by law. Accounting for just under \$1.5 million dollars in the FY2007 revenue projection, the annual Motor Vehicle Excise tax on the value of motor vehicles register in the city will account for more than 7% of all local receipts in the coming year. Because demand for new vehicles remains strong, projected revenue from this source will remain constant in the current fiscal year. Licenses and permits, amounting to more than \$250,000 in the coming year is reflective of economic growth and business activity taking place at the local level. This includes most inspection and permit fees collected by local inspectors and permit granting authorities.

Expectations are increased slightly for the coming year and reflect a continued increase in earnings directly related to ongoing new construction activities in the community.

Allocated annually by the Massachusetts State Legislature, State Aid is commonly categorized as education assistance or general revenue and is the second largest single source of operating revenue for

Expenses	FY 2007	% Change FY 2006	Income	FY 2007	% Change FY 2006
General government	\$1,411,812	194%	Property Tax	\$15,061,509	5.1%
Public Safety	\$3,801,785	8.1%	State Aid and Tuition	\$10,164,709	13.7%
Education	\$14,260,000	7.4%	Enterprise	\$2,967,711	9.7%
Public Works	\$1,197,171	20.5%	Local Reciepts	\$2,925,445	5.4%
Enterprise (Water/Sewer)	\$1,821,319	56.3%	Other Funds	\$27,000	-81.9%
Human Services	\$341,490	18.2%			
Culture and Recreation	\$441,597	9.6%			
Employee Benefits	\$1,397,207	-1.4%			
Fixed costs	\$5,653,201	7.6%			
City of Easthampton Fiscal Year 2007 Recommended Budget					

property tax growth, additional local fees and the return of lottery revenues previously diverted for state purposes allow the city to increase projected revenue by more than 8%, compared to the initial current year estimates.

the city. The largest of these payments, known as Chapter 70 Aid, is intended for the direct support of public school operations. At the present time we estimate that Chapter 70 Aid in 2007 will amount to just under \$7.2 million, or approximately \$130,000 above the current year estimate although changes

are possible. The next largest source of assistance from the state is the distribution of the Massachusetts Sate Lottery Earnings. This budget contains an estimate of additional lottery revenue that will return over \$600,000 to the community in the coming year, as proposed by the Governor and supported by leadership in both the House and Senate.

**2. EDUCATION**

In 2000, the educational attainment for person 25 years or older showed that 33% had at least 4 years of high school, 29% had less than 4 years of College and 29% had four or more years of College. The average cost per pupil in the Easthampton school system is \$6,748 per year as of 2000. In 2004-5, the expenditure had remained approximately the same at \$6,910.

There are eleven schools in Easthampton. See the below list:

**Special Education School**

Northeast Center for Youth and Families

**Public School**

Center School  
 Easthampton High  
 Maple Street  
 Neil A Pepin  
 White Brook Middle School

**Private School**

Calvary Baptist School  
 Notre Dame-Immaculate Conception  
 Riverside Industries  
 Williston Northampton

The residents of the City of Easthampton approved funding for the design of school construction and improvements. The two key components of the design are expansion and modernization of the High School and the construction of a new centralized Elementary School. The School Building Needs Committee, working with a project architect, has identified the needs for the schools and selected a promising site on Park Street near White Brook Middle School and Nonotuck Park for a new elementary school.

**3. INFRASTRUCTURE CAPACITY**

Section 3 focuses on Easthampton’s water supply source, water usage, and the status of a number of conservation and demand management practices such as public education, leak detection and repair, metering, and pricing. This section concludes with

several recommendations for continued efficiency and demand management throughout Easthampton’s water supply system.

Easthampton is a small residential/ industrial city with a population of 16,000 people. The Water Department draws water entirely from the Barnes Aquifer which has been designated as a Sole Source Aquifer by the Environmental Protection Agency. There are 5,430 service connections which include 5,136 residential connections. About 99% of the residential population is served by public water. The volume and percentage of total water used in million gallons per year by each type of customer is listed as follows:

Type of Customer	%	Volume (mgy)
Agriculture	0.3	1.9
Commercial	8.2	51.5
Industrial	8.2	51.9
Municipal	2.2	14
Residential	55.5	349
Institutional/Tax Exempt	1.6	10.3
Other	1.2	7.5
Unaccounted-For	15.6	142.7
<b>Total</b>	<b>92.8</b>	<b>628.8</b>

Percentages are based on both estimates and meter readings. The system pumps 59.6 residential gallons per capita per day (gcpd). Easthampton maintains emergency interconnections with Northampton and Southampton through a verbal agreement. In Northampton there is a hose connection on Route 10 and in Southampton a hose connection exists on South Main Street. There are no other interconnections planned with other communities.

In 2002, Easthampton, as a member of BAPAC, received a Wellhead Protection Grant from the DEP Drinking Water Program. As part of the grant, the project advisory committee staffed a booth hosted by the Water Department at the Easthampton Fall Festival. Sixty home water conservation kits were given out to zone II residents. These kits contained a toilet tank bag, a toilet tank fill cycle diverter, a low-flow shower head, leak detection tablets, and a universal home faucet aerator.

Easthampton does not have a water savings device rebate program and no water savings devices have been installed in public buildings. However, any

future work that will be done on the schools will require new devices to be put in as mandated by the 248CMR: Uniform State Plumbing Code. The City might seek grants through BAPAC in the future to provide funding for a residential rebate program.

Continued public education and outreach regarding the importance of the aquifer, the threats of contamination, and the benefits of recharge is an ongoing strategy for the city and Barnes Aquifer Committee.

#### **UNACCOUNTED-FOR WATER USE**

Unaccounted-for water in the system is 15.6% of total water pumped and can be attributed to fire hydrants, breaks and leaks, flushing, and stolen water/disconnected meters. This figure (Easthampton Water Conservation Plan June 2005) is calculated by first adding the Distribution System Annual Gallons (MG) to the Known Adjustments to get the Adjusted Annual Gallons. Then subtract the Source Pumped Total (MG) from the Known Adjustments to get the Total UAW Gallons and divide this number by 100 to get the percentage. To lower the amount of unaccounted-for water use the Water Department conducts water audits to find and fix leaks and keeps track of line flushing. There is a minimal amount of raw water that is lost in treatment due to aeration to remove TCE.

#### **PUBLIC EDUCATION PROGRAM**

Large industrial, commercial and institutional users are contacted regularly to encourage conservation through monthly meter readings to pick up on major problems and contact users. The Water Department worked with Big E's Supermarket, Tubed Products and J.P. Stevens to update their cooling system to reduce water usage. As part of the Wellhead Protection Grant, Barnes Aquifer toolkits were distributed at Hampton Ponds Association's July 4th, 2003 parade. The kits contained information about low-cost Best Management Practices (BMPs) for the home and garden. The purpose of the toolkits was to educate homeowners about proper disposal of household hazardous waste, water conservation, alternative to pesticides, and chemical fertilizers, septic system care and financial assistance for septic repair. Another task of the grant was a series of presentations to students at the White Brook Middle School. Students were taught through interactive classroom sessions about the water cycle and the importance of the Barnes Aquifer as a source of drinking water. The lessons involved visual aids including maps, posters, a video and a take home survey. The grant also purchased a terrarium style aquifer model for the school that can be used to

simulate contamination events and general hydraulic principles. PVPC staff met with teachers at the school on three occasions about the using the Barnes Aquifer as the model for groundwater education in their classrooms, to continue the learning process.

#### **LEAK DETECTION AND REPAIR**

Easthampton does not have a full leak detection program but instead performs leak detection on an as needed basis, typically in response to user complaints. Many leaks have been found throughout the fire hydrant system on Pleasant Street and the Water Department wants to install detector check valves on backflow devices. Emergency repairs are paid out from the regular operating budget and board approval is required for a catastrophic event. The amount spent on leak detection varies annually but there is \$750,000 to \$1 million reserve set aside for emergencies in the enterprise fund.

#### **METERING**

Easthampton has 98 percent of the total service accounts metered which accounts for about 5,400 operable meters in the system. Roughly 80 percent of the public buildings are metered. Buildings that are not metered include White Brook Middle School, Maple Street School and the high school. Estimated use for these buildings is based on per capita since plumbing and metering would be too expensive. Easthampton does not allow the installation of a second water meter for outdoor use although some were installed by private companies in the late 80's. Agricultural wells and industrial/commercial wells are permitted to reduce wastewater costs and cooling costs.

Meters are easily accessible for water system personnel to read through radio and touchpad. There has been \$250,000 invested to switch the automatic meter reading (AMR) over to radio. There is a regular metering program which includes repairs, testing, replacement and check for tampering. The master meters are calibrated annually by Valley Instruments Service. Large user meters (2" or larger) and residential meters are read quarterly. The Water Department will meter and bill for water from hydrants used by contractors for pipe flushing and/or construction if the use is substantial. There is \$75,000 per year set aside for meter repair and replacement, half of which is through the replacement program.

#### **PRICING**

Water supply system operations are fully funded through the enterprise fund. The following items

are covered by the price of water charged to customers:

- Watershed purchase/protection
- Well site purchase/protection
- Distribution system operation
- Capital depreciation account
- Aquifer land acquisition
- Capital replacement/depreciation fund
- Staff benefits package
- Treatment and associated treatment plant costs
- Purchase/installation of water conservation devices
- All aspects of the education program
- Staff training/professional development
- Leak detection
- Pumping
- Maintenance
- Hiring of staff
- Leak repairs
- Debt service
- Electricity/fuel

The rate structure is based on a flat rate system. Water is priced at \$1.60 per 100 cubic feet and sewer is \$2.35 per 100 cubic feet. Bills are based on actual meter readings. The bills compare current use with use in the previous pay cycle but customers can come into the office and get a full update and comparison. The volume of water use is stated in cubic feet. Water and sewer bills are sent out to residences quarterly. Larger users (2" main and larger) have monthly readings but are billed quarterly. The rate structure is evaluated every three years by the Board of Public Works with the last one done in 2003.

**4. DEMAND MANAGEMENT AND EMERGENCY PLANNING**

Easthampton does not currently have a written plan describing water use reduction targets, however the Water Department is developing one to get below 80 gcpd. There are two ordinances aimed at protecting and preserving groundwater resources. The Aquifer Protection District is an overlay district covering lands lying within the primary and secondary aquifer recharge of groundwater aquifers or within one-half mile radius of wells. The ordinance includes lists of prohibited uses, restricted uses and special permit uses.

The Water Use Restriction Ordinance gives the Board of Public Works the authority to declare a State of Water Supply Conservation and can impose restrictions, requirements, provisions or conditions limiting the outdoor use of water as necessary to

protect the water supply. During a state of Water Supply Conservation, under this ordinance, filling swimming pools and use of automatic sprinklers is prohibited and outdoor watering is limited to certain periods or can be banned. The ordinance has never been used but was adopted in 2002 as a result of a drought.

Provisions for groundwater recharge are also included in four other ordinances: Environmental Performance Standards, Multi-Family Housing, Detention Basin Design and Management and Open Space Residential Development. They all encourage minimizing stormwater runoff and maximizing infiltration while preventing non point source pollution to streams, water bodies and groundwater.

Easthampton has the capacity for interconnections with Northampton and Southampton to handle water emergencies. These are handled through verbal agreements for mutual aid. Easthampton has assisted Southampton with providing water in past years when they needed it.

**WATER BUDGET**

Easthampton has an excess capacity of water for the foreseeable future. The last water budget from 1983 had a per capita consumption rate of 206 gallons per person per day. In recent year this usage has almost been reduced by half, primarily due to decrease in industrial manufacturing uses.

<u>Well Name</u> <u>Volume (mgd)</u>	<u>Source Approved</u>	
	<u>Safe Yield (mgd)</u>	<u>Daily Pump</u>
Brook Street Well (9G)	1.45	1.45
Nonotuck Rd Well (6G)	1.04	---
Pines Well (5G)	.9	1.0
Hendrick Wellfield (4G)	2.9	1.2
Nonotuck Park Well (8G)	1.14	1.14
Maloney Well (7G)	1.7	1.5

**WASTEWATER AND STORMWATER SERVICE**

Due to the NPDES Phase II requirements, Easthampton will need to adopt Stormwater Ordinances. In addition, the City must actively work towards implementing their stormwater management plan and submit annual status reports to the EPA. Many runoff and drainage issues from new developments can be solved during the site plan process. Existing uses also pose threats from contaminated stormwater runoff. Pesticides, nutrients from waste and from fertilizers, sediment, and heavy metals can all contaminate stormwater

runoff. This runoff eventually finds its ways into the surface and ground water of Easthampton. By adopting BMPs, much of this runoff can be curtailed. One example of confronting the issue of stormwater is the project at Nashawannuck Pond. Three stormwater separators will be installed to separate the contaminated sediments from the water. This will improve the pond's water quality and reduce the amount of nutrients that cause eutrophication.

Easthampton has no combined sewer overflows (CSOs) which are a major threat to surface waters such as the Connecticut River. The municipal wastewater treatment plant was recently upgraded.

Flood Control Structures- Two dams in Easthampton provide some flood control ability. Both are located along Broad Brook and form Nashawannuck Pond and Lower Mill Pond. The dam at the Manhan River also provides some flood protection. Minimal losses of property would be expected in Easthampton should these three dams be damaged or lost.

Buildings/Land – Attached to this working paper is a list of City owned properties including recent tax title takings. This list will be expanded to show the age of buildings and comments on maintenance needs.

## **OTHER UTILITIES and SERVICES**

Solid Waste Services and Facilities- The Easthampton landfill closed in the late 1980s and was capped in 1992-3. Currently all residential trash pickup is by private haulers. The City operates a recycling and bulk waste center on the first and third Saturday mornings of each month. Fees are required for use of the site (at the Highway Department, Northampton Street). Containers, mixed paper, motor oil, metals, electronics, brush, and fluorescent bulbs are collected. The Department of Environmental Protection is providing technical assistance to the City on alternatives to recyclable and trash collection. The study, due out in February, 2007, will look at a new larger transfer station with trash capacity, and municipal contracting for trash collection. All options will hope to optimize revenues from recycling.

Telecommunications – Charter cable serves the City of Easthampton with cable television and internet services.

Three companies have located Telecommunications antennae on the former water tank on Ferry Street (Nextel, AT&T, Sprint). T-mobile is locating an antenna in the tower of the Town Hall on Main Street, and Verizon/Bell South is constructing an antenna on the National Nonwovens smoke stack off Pleasant Street.

Gas and Electric – Bay State Gas provide gas service to areas of Easthampton, but natural gas is not available throughout the City. Western Massachusetts Electric provides electricity to the city.

## CHALLENGES & OPPORTUNITIES

(From presentation at MPC Dec meeting)

- **Traffic circulation – what studies have been done; identify problem locations, may need additional studies**
- **Is there a plan for repair of roads**
- **Is current public parking adequate for future**
- **Parking garage location**
- **New school; re-use of old schools**  
**Is there support for funding?**  
**Reuse will benefit Economic Development and Housing**  
**Review other communities**
- **Emergency Preparedness – are we ready?**
- **Play structures for children**
- **Improve City web site**
- **WWTP, need to learn capacity, Water capacity (using 2 MGD)**  
**Infrastructure old (capacity 6 MGD)**  
**Need to balance what needs to be done with preferences**

## TOOLS AND CASE STUDIES

### REGULATORY

#### Low Impact Design Standards

Low Impact Development (LID) is an innovative stormwater management approach with a basic principle that is modeled after nature: manage rainfall at the source using uniformly distributed decentralized micro-scale controls. LID's goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source.

#### Stormwater and Erosion Control Bylaw

Establishes a Stormwater Authority and requires that projects over certain thresholds obtain a Stormwater Management Permit issued by the Stormwater Authority.

#### Sewer and Water Service District

This district can be adopted by the community through majority vote of the City Council. The adoption declares that water and sewer services

shall not be extended outside the district until a certain percentage of the lots within the District have been built upon or cease to be buildable lots.

#### Aquifer Expansion Bylaw

Easthampton has an Aquifer Protection Overlay District as part of its zoning ordinance. This district establishes additional controls on development over the Barnes Aquifer on the southern end of the city. Recently the aquifer recharge area for the Maloney Well on Lovefield Street was approved by DEP. Easthampton's zoning does not extend to this area. With natural protection of a layer of clay in much of the northern part of the city, the protections required in this area of the aquifer may be different from those on the sandy southern section.

### NON-REGULATORY

#### Tax Increment Financing

Tax increment financing (TIF) allows a jurisdiction to capture, for a pre-determined number of years, the tax revenues generated by the enhanced valuation of properties within a "TIF district" resulting from various improvement projects. The tax revenues yielded, which exceed the taxes collected prior to redevelopment, constitute the "tax increment" and the TIF captures that gain to reinvest in and support the redeveloped area.

#### Partnership Schools

Under new federal legislation, the Economic Growth and Tax Relief Reconciliation Act of 2001, a public school system can negotiate with a developer to build a public school facility in accordance with designs and standards set by the community or state, and lease the facilities to the school system under a long-term arrangement at a predetermined rent.

#### Safe Routes to Schools

A sustained walk-to-school program that uses a comprehensive approach to make school routes safer for children to walk and bicycle. The programs often use policies and dedicated transportation funding to create permanent change and normalize walking.

#### Pay-As-You-Throw Trash Removal

PAYT requires residents to purchase bags for trash disposal as a means to reduce waste and increase recycling. Bags would be available at local retailers and could be different sized for different household types.

#### Municipal Contract for Trash Removal

The City could issue a Request for Proposals for a single trash hauler. The city could establish an

enterprise system to bill for these services. In conjunction with a Pay As You Throw program, the city would benefit from increased recycling revenues while lowering water production. It is possible that such a contract could lower household waste costs by 40 to 50%.

#### Green School Initiative

The Massachusetts Technology Collaborative (MTC) and the Massachusetts School Building Authority have teamed up for this program to provide school districts in Massachusetts with the information and resources necessary to help them design and build high-performance green schools.

The goal of the Green Schools Initiative is to encourage school districts to construct or renovate school buildings that will cost less to operate and will provide healthier learning environments for students. The program will also help influence how future schools will be designed and built.

Data from the Green Schools Initiative pilot projects show projected energy savings of 30% above state code requirements on average, with some projects projecting more than 40% energy savings. These energy savings translate to expected annual cost savings of \$70,000 per year on average.

### **FINANCIAL**

#### State Revolving Funds (SRF)

SRF loans are repaid with principal and interest by the loan recipient, which allow the SRF to maintain or increase funding levels. At the state level, the most

common revolving funds are the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF). The CWSRF example is used to illustrate the process, benefits and limitations of SRFs. Under the CWSRF, each state maintains revolving loan funds to provide financing assistance for water-quality infrastructure projects.

## GOALS AND STRATEGIES