

Town of Lancaster

# Water Division Review

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Division of Local Services / Technical Assistance Section

December 2008

Table of Contents

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Introduction ..... 1

Financial Management Recommendations.....9

1. Create a DPW Business Manager Position.....9
2. Convert to an Appointed DPW Board .....9
3. Establish Water Division Goals and Objectives .....9
4. Build Multi-Year Revenue and Expenditure Forecast.....10
5. Prioritize Capital Needs .....10
6. Develop a Formal Budget Process .....11
7. Adopt Rate Setting Policies .....11
8. Issue and Manage Debt.....11
9. Adopt Enterprise Fund Accounting .....12
10. Post Water Payments at Collector’s Office .....12
11. Network Financial Management Software and Data Back-up .....12
12. Outline Formal Abatement Process .....13
13. Accelerate Water Meter Replacement Program .....13
14. Reconcile Division Expenditure Reports.....14
15. Re-Examine Water Final Bill Process .....14
16. Expand Town of Lancaster Water Division Webpage .....14
17. Implement a Geographic Information System.....15

Appendix A.....16

Appendix B.....17

Appendix C.....18

Acknowledgements .....19

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## Introduction

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In September 2008, the Division of Local Services (DLS) began this review of the Lancaster water division at the request of the board of selectmen. In their request, selectmen sought an independent assessment of the water division and suggestions to improve its management structure, revenue forecasting, internal controls and management practices. They also expressed the hope that the selectmen and the board of public works could work collaboratively to “ensure the fiscal solvency” of Lancaster’s water division.

This report is the latest of several studies for the Town of Lancaster, including a written financial management review completed by the Division of Local Services (DLS) in 1999 and a department of public works (DPW) operations review completed by Government Consulting Group, Inc. in 2005. Both reports present ways to operate the DPW and the water division in a more effective and cost efficient manner. In addition, Lancaster’s water division has received on-going advice and guidance from the utility consulting firm Woodcock & Associates, Inc. on revenue estimates and water rate analysis, and from the civil engineering firm Haley and Ward, Inc. on the assessment of capital needs.

In our report, we set out objective findings and specific recommendations aimed at enhancing the water division’s policies and practices as they relate to overall financial management and general governance. They are based on site visits by a technical assistance team consisting of members from the DLS Municipal Data Management & Technical Assistance Bureau and the Bureau of Accounts (BOA). During these visits and by telephone, the team interviewed and received information from town officials and staff listed on the Acknowledgements page at the end of this report. In addition, DLS staff examined department records and documents, relevant town bylaws, job descriptions, budget information and other reports including the independent audit report, Tax Recapitulation Sheet and Schedule A.

In reviewing the water department’s practices, we focused on:

1. The division’s structure in the context of the employee duties and responsibilities;
2. The degree of coordination and communication that exists between and among boards, officials and staff involved in the operation of the water division;
3. The town’s budget and capital planning processes and other financial management-related activities; and,
4. The general efficiency of water operations as measured by the division’s success in maximizing resources and minimizing costs.

We encourage the board of selectmen and others, when formulating overall strategies for improving Lancaster’s water department, to consider the observations, analysis and recommendations contained within this report. These are recommendations only, which can be

implemented, provided there is sufficient cooperation and political will among the board of selectmen, finance committee, board of public works and finance department.

Located in Worcester County in north central Massachusetts, the Town of Lancaster has a total population of approximately 7,000 and serves as a bedroom community for the larger urban centers of Leominster, Worcester and the Boston metro region. The town is governed by open town meeting and a three member board of selectmen. The board appoints a town administrator who acts as their agent, provides professional support and oversees day-to-day operations. The town offers a full range of municipal services which are funded through a combination of property taxes, state aid and other local receipts. For FY2009 town meeting appropriated a total budget of \$16,838,340, of which \$761,029 is to finance water division operations.

**Water Supply** – The Town of Lancaster’s water source is an aquifer at the headwaters and confluence of the North and South Nashua Rivers within the Nashua River Basin. Water is drawn from two wells located on Bolton Station Road, whose pumping facilities generate a volume of about 1,200 gallons per minute. Once water is pumped into the town’s distribution system it enters two water storage tanks located on Windsor Road which have a total capacity of 3.0 million gallons. The storage tanks help regulate the system-wide pressure and act as above ground reservoirs to provide adequate supply during periods of high demand. With over 2,000 individual service connections and over 40 miles of water mains, the distribution network services approximately 75 percent of the town. In expectation of future demand, plans are currently underway to tap into a new water source and to construct a third well and pumping facility.

As reported by the town to the State Department of Environmental Protection, total water distribution for calendar year 2007 was 231,274,000 gallons, which equates to approximately 634,000 gallons per day. Since 2004, the town’s total water distribution has steadily declined, as has the volume of unaccounted for water. Unaccounted for water is the difference between water produced and metered use, and typically includes underground leakage, unauthorized use or inaccurate meters. Despite the increasing number of service connections, this drop in volume is largely attributed to improved leak detection and repair efforts.

### Water Distribution History

(Source: Public Water Supply Annual Statistical Reports)

Year	Total Water Distribution	Unaccounted for Water (UAW)	% of UAW	Total Service Connections
2001	240,883,600	53,799,029	22.30%	1851
2002	234,198,000	50,262,651	21.50%	1864
2003	245,330,400	50,262,521	20.50%	1879
2004	261,197,000	N/A	N/A	1890
2005	255,899,000	42,507,000	16.60%	1902
2006	232,433,000	41,202,462	17.70%	1903
2007	231,274,000	36,375,937	15.70%	2002

Water Division Management – In 1990, the water division was created by local acceptance of M.G.L. c. 40, §39K, which the town has used to effectively establish an enterprise fund for water financial operations. The primary purpose of an enterprise fund is to identify all costs to provide water service – direct, indirect and capital costs – and set user rates at a level to recover those costs. As a result, enterprise accounting allows a community to determine what portion of total costs to provide a service is recovered through user charges and what portion is subsidized by the tax levy, if any. Enterprise accounting also enables a community to reserve the "surplus" or retained earnings generated by the operation. Otherwise, absent an enterprise fund, surplus would close to the general fund, and to free cash, at year-end.

By adopting an enterprise fund a town does not create a new municipal department. It does not alter pre-existing lines of authority or reporting relationships between and among personnel. It does not grant any level of autonomy to the department, its employees or to the board that oversees its operation. In Lancaster, the water division's annual operating budget must still be approved by town meeting and should conform to the overall financial goals for the town. Like all other town departments, water division expenditures are still subject to the statutorily required process where the town accountant must review invoices and verify that the intended expenditure is consistent with the purpose of the account to be charged, that sufficient funds are available in the account to pay the invoice amount and that there is no evidence of fraud. Once verified, an invoice is placed on a town warrant and only paid upon approval by the board of selectmen.

The water division operates under the direction of an elected three member board of public works, whose members also serve as water commissioners. The board meets every other Monday without a formal agenda. The current chairman has served on the board for six years and is employed in the utility industry. A second member has served eight years, sits on the town planning board and is employed at a state correctional facility. The third member has been a board member for two years after serving for 30 years as the DPW superintendent, and is also an elected member of the board of selectmen. Beyond general management oversight, the primary role of the board is to formulate policy, set water rates, review water abatements and annually appoint the department of public works superintendent.

DPW is divided into three divisions: highway, water and cemetery/parks/trees. Each division is assigned three employees, one of whom serves as a working foreman. Each foreman reports to the DPW superintendent, who was appointed in May 2007 from his position as foreman of the cemetery/parks/trees division. When called upon, employees periodically work outside their division and collaborate on various projects, but these are typically brief assignments and are not accounted for with cross-charges between divisions. Office support is provided by two full-time administrative assistants. Each has specific responsibilities, but both are crossed trained to complete tasks in the absence of the other.

Water Operations – The water division is responsible for the water metering program, authorizing the water commitment and producing water bills. Office staff print, stuff and mail bills in-house. The generation of water bills begins at the water meter which records

consumption. Water meters are read quarterly in January, April, July and October over a two day period by division staff. An electronic handheld device is used to record readings from each meter. After capturing the readings, the handheld receiver is returned to the office where readings are downloaded to the Sensus metering software. Sensus Meter Systems software maintains user account data which is converted to VADAR, the town's financial management software, in order to generate the water commitment and bills. Although the finance department and water division have utilized VADAR since 2004, the two operations are not networked, which requires the software and database to be housed independently at two separate locations. Town hall finance operations recently received an upgrade to the VADAR software, while the water division continues to utilize an outdated version. To seamlessly exchange data, the two offices would have to operate the same versions of VADAR and be networked.

The division is currently undergoing a meter replacement program from the old visual read water meters to radio read meters. An annual appropriation of \$25,000 is being made to cover replacement costs, with the project scheduled to be completed in 2010. These new meters have a radio transmitter that broadcasts a signal allowing meter readers to simply drive down the street with a receiver in the vehicle to capture readings. Advantages of "radio read" meters include: faster meter reading, greater accuracy, increased operator safety, fewer re-reads and elimination of hard-to-read meters, among others.

Converted from Sensus to VADAR, the water commitment is sent via email to the town collector's office which receives payments over-the-counter and through a lockbox. Approximately 50 percent of water payments are processed through the town's lockbox service. Money is received, reconciled and deposited at the collector's office, but bills are returned to the water division where payments are manually posted to individual user accounts. Once a week, the water division transfers an electronic file which updates user account data within the collector's database. The entire process from the moment water meters are read to the time the commitment is authorized and bills are issued takes approximately three weeks.

Users have the right to contest their water bills to the board of public works through the abatement hearing process. The current abatement procedure is informal and undocumented. Users simply explain the problem to division staff who re-read meters and update accounts as necessary. According to staff, an average of two to three abatements are granted per year and are typically for misreads. Prior to 2001, an abatement application procedure was in effect which required a form to be completed and submitted to the board for review and authorization. The division recently began a reconciliation of prior authorized abatements with the accountant because abatements were not properly recorded or reported.

Budget Process – In developing its budget, the board of public works relies heavily on the support of outside consultants at a total cost to the town of between \$3,000 and \$5,000 per year. Chris Woodcock (Woodcock & Associates) continues to produce revenue projections and rate analysis, while Haley and Ward provide a capital asset needs assessment. Until recently, a consultant, Ron Asadorian, completed expenditure forecasts. The budget process involves the finance director who works primarily with Woodcock & Associates on the water division's

financial projections and rate adjustments. The DPW board approves the budget which is reviewed at an all day finance committee meeting where departments, including the DPW, outline proposals for the ensuing fiscal year. After conferring with selectmen, a warrant article is drawn up for approval at annual town meeting. On May 5, 2008 town meeting appropriated \$700,000 from water operations, to be funded through rates, plus \$61,029 from water retained earnings for FY2009.

The water enterprise fund has seen a significant increase in its retained earnings from \$47,690 in FY2005 to \$370,841 in FY2008 (A balance sheet has not yet been submitted to DOR for a certification of FY2008 retained earnings). Debt service, representing 29.5 percent of the total water enterprise operating budget, has gone from zero dollars in FY2007 to \$225,000 in FY2009. The bulk of this debt service (\$195,585 for FY2009) is being used to payoff a \$1.748 million bond that was issued to finance, among other past water main installation work around George Hill, the \$1.295 million replacement in 2005 and 2006 of an 8,975 feet stretch of water main on Langen Road. The new main replaced an aging 6 inch main with a larger 12 inch capacity main.

Up until this fiscal year, the town also maintained a separate water capital improvement account that was funded through water available funds. In May, per DOR request, the account's balance of \$231,382 plus interest accrued through June 30, 2008 was transferred to water retained earnings by town meeting. Although a balance of \$63,128 remains, it will be transferred to water retained earnings. The capital improvement account primarily served to finance water equipment such as trucks and backhoes, which will now be funded directly through water enterprise retained earnings.

Appendix A and B at the end of this report presents tables which show water enterprise historical trends for appropriations, retained earnings and debt service in Lancaster, as well as for debt service levels for neighboring communities. Appendix C provides a map of Lancaster's water system.

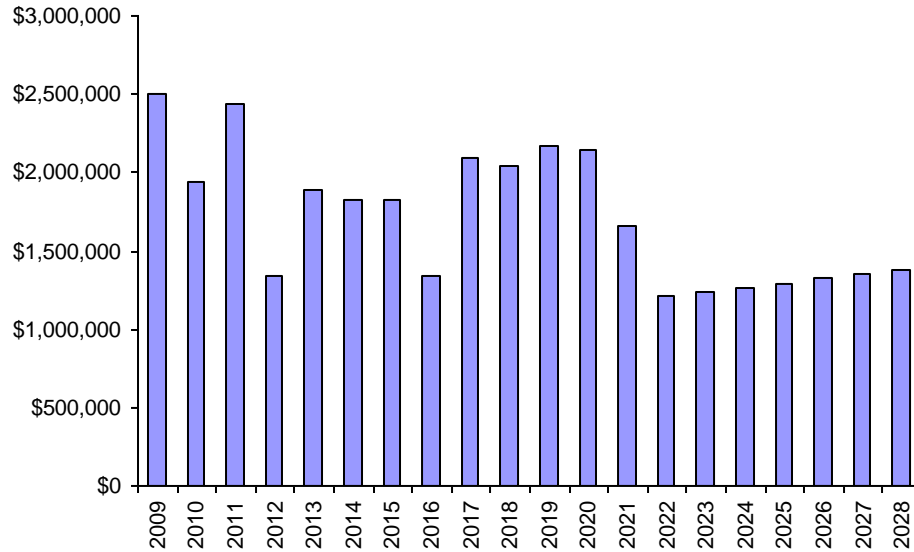
Capital Improvement Program – In 2007, funded through a grant from the Massachusetts Water Pollution Abatement Trust (WPAT), the civil engineering firm Haley and Ward, Inc. completed a *Drinking Water Infrastructure Needs Survey and Assessment* for the Town of Lancaster. This report updated the town's master plan for water system upgrades and improvements and included a 20 year capital plan. The graph on the following pages shows a projected need to spend over \$34 million between FY2009 and FY2028, or \$1.7 million annually, on average, for water system improvements.

The principal reason cited for these projected costs is years of deferring maintenance. In the absence of a funded replacement program, town water mains are original and average 73 years in age. Furthermore, according to Haley and Ward, approximately 40 percent of the town's water mains have outlived their scheduled life expectancy of 80 years.

In an attempt to address this situation, the town has developed a 10 year capital plan and has scheduled \$3.7 million in spending for water infrastructure improvements over that period. However, this amount falls far short of the Haley and Ward 10 year projected need of \$18.9

million. Although the 10 year capital plan developed by the town along with the investments made in the system at George Hill and Langen Road represent a good faith effort on behalf of the water division to invest in the ongoing maintenance and replacement of the aging water systems, much work remains.

**Haley and Ward, Inc. 20 Year Capital Investment Plan**



Water Rates – According to information provided by the water division, the town has increased water rates twice in the past five years, as shown in the next table. Of particular concern is that no records could be located to determine when rate changes prior to October 2003 were approved or became effective, nor could any rate history prior to October 2003 be provided.

**Lancaster’s Water Rate Increases\***

Usage & Base Rate	Rates Prior to Oct 2003	New rates Oct 2003	New Rates April 2008	'03 to '08 Overall % Increase
up to 1,000 cu.ft.	\$15.62	17.49	27.57	76.5%
	<b>Added to base rate for each additional 100 cu.ft.:</b>			
1,100 cu.ft. - 3,500 cu.ft.	1.56	1.75	2.76	76.9%
3,600 cu.ft. - 10,000 cu.ft.	2.06	2.31	3.64	76.7%
10,100 cu.ft. - 30,000 cu.ft.	2.81	3.14	4.95	76.2%

\* Table is as it appears by the Water Division

Nevertheless, in April 2008 Lancaster significantly increased water rates to a level that equates more closely to those in area communities. However, water rates were, prior to this adjustment, dramatically discounted relative to surrounding communities as demonstrated in the table on the following page. As a result, Lancaster effectively missed an opportunity in prior years to build reserves which could have defrayed current capital financing needs.



### Tighe & Bond Rate Survey

<b>Municipality</b>	<b>2002</b>	<b>2004</b>	<b>2006</b>
Clinton	\$54.00	\$54.00	\$81.00
Fitchburg	66.50	74.00	74.00
Groton	102.50	102.50	113.25
Harvard	60.00	60.00	123.75
Hudson	62.50	66.75	72.50
Northborough	64.50	64.50	100.50
Shirley	84.00	96.00	108.00
Sterling	61.00	75.25	80.00
Townsend	69.00	69.00	69.00
<b>Lancaster</b>	<b>46.75</b>	<b>52.50</b>	<b>52.50</b>
<b>State Average</b>	<b>72.50</b>	<b>80.25</b>	<b>90.75</b>

Conclusion - For a municipal water division and a department of public works, there are essentially three key areas that contribute to a successful public works water operation.

First is customer service. More than most town departments, the work of the DPW is highly visible and directly affects residents. When problems arise, people see and feel the negative impact. When the job is done well, peoples' lives are easier and residents are positive about what they see. Second is financial administration. Budgets need to be developed, annual spending needs to be monitored and fiscal trends need to be analyzed to set realistic rates. The DPW and water division need to manage on-going capital projects as well as evaluate, prioritize and identify funding for future projects. Third is technology. Managing a water supply and a distribution system is an increasingly complex operation. State and federal regulations are constantly changing. Machinery, equipment and systems are more sophisticated each year, and chemistry plays a critical role.

We believe that the DPW superintendent, the water foreman and office staff, all of whom we interviewed, are conscientious and attempt to do a good job. Long experience with the town, and working through the ranks, allows them to understand and respond well to resident needs. Daily workflow in the field and in the office appears to be adequately managed and completed. At the same time, where improvements are warranted, we address them with recommendations.

However, the DPW, the board of public works and the water division, as well as the town in general, would benefit if staff had support on matters involving the annual budget, financial forecasting, capital planning and water system management.

In the past, reliance has been placed on outside consultants to carry the bulk of the financial load, but little, if any, in-house capacity has been built-up to question their conclusions. The budget is developed through a minimalist process. Detailed financial analyses were not evident. Although a 10-year capital plan was developed by staff, no reconciliation was provided to the 20-year plan developed by the division's consultant.

We think it is unfair to place expectations on the current staff and board to fill the need for greater financial involvement and expertise. Their respective strengths lie elsewhere, but these issues need to be addressed.

Therefore, the first of our recommendations is intended to bring support to, and fill higher level needs at the DPW. Accordingly, we recommend that a DPW business manager position be created and funded. We would expect the person in this position to oversee all matters involving the financial management of the DPW. In this way, field personnel can be relieved of these burdens and the need for outside consultants will no longer exist or be reduced significantly.

We also recommend that the town move from an elected board of public works to an appointed three-member board. The ability to solicit or recruit, interview and appoint residents, who have the strongest credentials and most relevant professional experience, provides an opportunity to strengthen the department, as well compliment and support staff. Today, that opportunity is left to chance through an election.

In Lancaster, the water operation is described as a relatively straight-forward process, but this is not likely to always be the case. The town needs to consider how it can best structure a DPW and assign responsibilities that take advantage of peoples' talents, while developing resources that compensate for department deficiencies.

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## Financial Management Recommendations

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### ***Recommendation 1: Create a DPW Business Manager Position***

We recommend that the town create a DPW business manager position. A business manager would develop and monitor the annual budget, complete financial forecasts, recommend rate structures and work with the town finance director on other higher level financial issues. A business manager would identify and evaluate capital needs, recommend a long-term plan to implement and manage capital projects. A business manager would also review the recommendations provided by any outside consultant and would be prepared to question conclusions and methodologies to ensure that the department and town take the most prudent course. We envision a salary for this full-time position in the range of \$50,000 to \$60,000.

The intent of this recommendation is to relieve current staff from responsibility to complete these types of tasks, allowing them to focus on daily field and office work which is where their knowledge and experience lie. A business manager would also be best positioned to implement many of the recommendations within this report.

### ***Recommendation 2: Convert to an Appointed DPW Board***

We recommend that the town convert from an elected to an appointed DPW board. A clear trend has emerged among Massachusetts' communities in favor of appointed boards when a specific skill set or knowledge base is required. With an appointed board, the town has the advantage of recruiting individuals from a broad pool of candidates, whose qualifications can be evaluated and more appropriately matched to the needs of the department, allowing the person with the strongest credentials and most relevant professional experience to support the operations. Such scrutiny does not take place as part of the election cycle. Under M.G.L. c. 41 §21 town meeting and subsequently town voters, can authorize the selectmen to appoint the board of public works. We believe the current board members possess credentials that are closely in line with DPW personnel. A more complimentary relationship, where board members could provide stronger support and have a background in, but not limited to, civil engineering, public health and water system management, would benefit staff and the town.

### ***Recommendation 3: Establish Water Division Goals and Objectives***

We recommend that the board of public works set annual goals and objectives for the water division. The beginning of each fiscal year presents an opportunity to establish goals and objectives for the water division. By working with the division staff, the board can develop a

series of specific and reasonable benchmarks consistent with the mission of town for the department to accomplish. Included in the process should be the town administrator. During the year, opportunities will arise to discuss progress and, if necessary, bring additional focus to bear on areas where shortcomings are identified. By year-end, the division's performance can be assessed and feedback provided, with appropriate adjustments being made for the ensuing year. Having a system of formal goals fosters an environment of expectations for the division and provides clarity of purpose, which can become a basis for annual budget decisions.

#### ***Recommendation 4: Build Multi-Year Revenue and Expenditure Forecast***

We recommend that a multi-year revenue and expenditure forecast be developed for the water division. Current financial analysis for the water division is largely outsourced. Revenue and expenditure reports are developed by the utility financial consulting firm Woodcock & Associates. Although the finance director reviews the work product of the consultant, the involvement of the DPW personnel is unclear. Furthermore, there appears to be no formal process of review by the DPW board, selectmen or finance committee.

Revenue and expenditure forecasting is an important task that works hand-in-hand with water rate setting and capital planning, and develops a strong fiscal blueprint for the water enterprise. Long-range forecasting contributes in a significant way to the annual budget process and would help the DPW board establish policies relative to water rate adjustments or capital investment. Analyses of the ongoing relationship between the revenue and expenditure trends will help the board plan the financial future of the water enterprise in an informed and thoughtful way. Forecasting will allow the board and other town officials to understand and quantify the long-range fiscal impact of proposed policies and initiatives before final action is taken.

#### ***Recommendation 5: Prioritize Capital Needs***

We recommend that the DPW board prioritize and fund capital needs. As is typical in most communities, funding for capital improvements declines in difficult economic times, due in part, to an unwillingness to increase user rates. However, the town's water infrastructure needs are ongoing. Furthermore, it appears from our discussion with local officials that capital planning for the water division is more or less conducted on an ad-hoc basis.

As we understand, a 10 year capital plan to spend \$3.7 million has been developed by the board of public works. The Haley and Ward 20-year capital master plan calls for an expenditure of over \$34 million. To our knowledge, these two plans have not been reconciled.

The DPW board, along with water division staff, should work to develop a realistic capital improvement plan, including a funding schedule. As a first step, it needs to critically evaluate the Haley and Ward projections. For more information, the town should consult

*Developing a Capital Improvements Program: A Manual for Massachusetts Communities*, found at [www.mass.gov/dls](http://www.mass.gov/dls).

### ***Recommendation 6: Develop a Formal Budget Process***

We recommend the development of a formal, internal water and DPW budget process. A clearly defined budget process must be established for water, as well as DPW operations. The process should be brought in-house. It should begin with the development of a budget calendar that coincides with the overall schedule for the town budget. Initial focus should be on the projection of revenues, but attention should also be directed to estimated retained earnings, operating costs including debt levels and capital needs. Utilizing a methodology developed by the consultant, the department should be able to project rates necessary to fully fund operations.

### ***Recommendation 7: Adopt Rate Setting Policies***

We recommend that the DPW board adopt a formal policy on the use of retained earnings. Retained earnings reflect the year-end surplus in the water enterprise fund. Once certified by DOR, it can be used to fund capital improvements, reduce user charges, reimburse the general fund for prior year subsidies and cover any enterprise revenue deficits. More recently, the town has been successful in producing retained earnings. However, moving forward, officials should commit to a policy which strives to produce reasonable retained earnings and directs how it should be expended. In Lancaster, it might be most prudent to allocate retained earnings to a special purpose stabilization fund for water improvements under M.G.L. c. 40, §5B to pay the cost of anticipated capital needs. Once rates are set to fully cover the cost of operations, a policy would direct what additional amount would be raised to generate a surplus, and how that surplus would be allocated.

### ***Recommendation 8: Issue and Manage Debt***

We also recommend the adoption of a formal policy to guide decisions on the issuance and management of debt. The water division and the town must issue debt to address its capital needs. The resistance to issuing debt is in part the reason why the town now faces up to \$34 million in capital needs to address its aging water infrastructure. Because of the extent of deferred maintenance related to the water system, it is virtually impossible to keep up with ongoing maintenance needs, let alone expand a water system, on a pay-as-you go basis. The town needs an infusion of capital by borrowing in order to address its capital needs.

At the same time, it is important to manage debt. A debt policy directly related to a town's capital improvement program typically controls the amount of debt issued, often times by

tying debt service levels to a percentage of total enterprise fund operating budget. A policy should specify what spending purposes would qualify for betterments, bonding, or for a direct dollar outlay, and set parameters on how long to borrow money above or below a certain amount. Furthermore, a policy would direct an annual review of previously authorized or issued debt, with the purpose of redirecting any remaining capacity where projects are completed, abandoned, or have yet to begin after a certain period has passed since authorization.

Once a debt policy is established, the town should incorporate the various guidelines and thresholds into the capital improvement plan. Developing a more comprehensive and accurate capital plan will improve the accuracy of the town's revenue and expenditure forecast.

***Recommendation 9: Adopt Enterprise Fund Accounting***

We recommend that Lancaster formally adopt enterprise fund accounting for the water division by accepting M.G.L. c. 44 §53F½. Although the town's water division currently operates under M.G.L. c. 40, §39K which the town has used to effectively establish a water enterprise fund, it should formally adopt M.G.L. c. 44 §53F½ to establish clear legal authority to operate as an enterprise fund. Additional information on enterprise funds may be found in the Division of Local Services [Enterprise Fund Manual](#).

***Recommendation 10: Post Water Payments at Collector's Office***

We recommend that the collector's office post water payments. Currently, the collector's office receives a commitment from the water division. Its staff then collects and then deposits water payments to a town bank account. Water bills are then returned to the water department where they are posted to user accounts. Because computers in the two offices are not networked and are on two different versions of VADAR, the water division periodically sends an updated account file to the collector's office via email.

Instead the collector's office should control the entire process by posting water payments to VADAR in its office. It would then send an updated file to the water division. If the older version of VADAR in the water division cannot accept the data, then the current process would need to continue until an update is installed.

***Recommendation 11: Network Financial Management Software and Back-up Data***

We recommend that the town explore ways to network DPW and water division computers with financial offices in town hall. In an effort to maintain up-to-date information and operate more effectively and efficiently, we suggest that the town conduct an analysis to

determine the most cost effective way to connect town and DPW computers. This was also a recommendation in our 1999 financial management review for the town. If connected, offices at the two locations can seamlessly exchange data, update files (such as the water receipt accounts) and share other information.

We recommend that officials develop a town-wide policy for backing up computer data. In the absence of a network, users should perform a regular backup of their individual computer hard drives. Instructions should outline how often a backup should be performed and where the information should be stored. Once a network has been installed, the town finance director, as the technology coordinator, should disseminate a town-wide computer backup policy. Staff should be instructed not to use their local drives since data and files stored there can not be backed-up centrally. Given the importance of the town's data sets, all files should be backed up on an established schedule and stored offsite for protection.

### ***Recommendation 12: Outline Formal Abatement Process***

We recommend that the board of public works implement a formal water abatement process. The water division and DPW board currently approve abatements in an informal manner. This process opens the door to questions with regard to the basis for abatement awards and whether decisions are equitable or in compliance with state criteria. We suggest instead that residents seeking an abatement be required to file a standard application which would then be reviewed by water division personnel and approved by the board of public works. Once all actions have been completed by the board, a copy of the abatement certificate should be forwarded to the treasurer/collector's office and to the accountant's office. If DPW computers were connected to the town hall network, abatements would be more easily recorded and tracked.

### ***Recommendation 13: Accelerate Water Meter Replacement Program***

We recommend that the water division accelerate its water meter replacement and upgrade program. Beginning in 2005 the water division initiated a program to replace old and inaccurate water meters. Of the approximately 2,000 water meters in town, 50 percent have been upgraded to modern "radio read" capability and \$25,000 is being appropriated annually to cover replacement costs. The replacement project is schedule to take five years and run through 2010.

We encourage the town to shorten this extended timetable and move quickly to replace water meters. By moving forward sooner rather than later, the town will avoid escalations in the cost of labor and materials that routinely occur over time and develop a more equitable system where each customer pays their fair share and no resident is subsidizing the water consumption of another.

***Recommendation 14: Reconcile Division Expenditure Reports***

We recommend that the water division reconcile monthly expenditure reports. The finance director currently produces expenditure reports on a monthly basis for each department. Recommended practice dictates that departments should review the information contained within the reports to confirm the status of their department budget and identify errors. Moreover, the administrative assistant should reconcile these expenditure reports to a department expenditure log which would be independently maintained on an Excel spreadsheet. The review provides the board of public works and DPW superintendent with useful information on monitoring the financial performance of their department, for analyzing the underlying causes of any line-item shortfalls or excesses and for making necessary mid-course budget adjustments.

***Recommendation 15: Re-Examine Water Final Bill Process***

We recommend that the water division and treasurer/collector explore ways to streamline the process for a change in property ownership. We suggest that when a property on town water changes title that the seller, who is typically required to produce a municipal lien certificate at the property closing, be charged in the closing documents for their water usage to date. The subsequent bill would still go to the property address and include charges for the entire billing period, but it would be paid by the new owner who covers their actual consumption along with what was credited at closing for usage prior to new owner occupancy. For a mutually beneficial collection method the water division's administrative assistant and treasurer/collector should review the process and how it may impact respective departments.

***Recommendation 16: Expand Town of Lancaster Water Division Webpage***

We recommend the expansion of the water division's webpage on the Town of Lancaster website. A comprehensive, up-to-date and accurate webpage can help generate public awareness. In other communities, user-friendly and informative websites have proven successful in reducing the amount of time that personnel spend fielding questions. Information helpful to users which can be added to the webpage include statistics relative to the town's public water system, contact information, abatement applications, rate and fee schedules as well as a variety of other useful data. To begin, we suggest that staff review water utility websites from communities across the state.



***Recommendation 17: Implement a Geographic Information System (GIS)***

We recommend that the town invest in Geographic Information System (GIS) technology for the department of public works. GIS is a powerful computer-based tool that can provide the town and particularly DPW with a convenient, informative and effective way to record and extract data relative to the town's infrastructure. With the ability to manage a high volume of data, GIS can assist the DPW superintendent in streamlining workflow by tracking maintenance and repair work and documenting various project milestones. The system not only consolidates related statistics previously kept in separate databases, but can provide for better data quality analysis by allowing the user to quickly identify all assets with similar use codes, sizes, locations or other features that may affect a specified project or area. Moreover, maps maintained as part of GIS can be updated, organized and shared across various departments. An automated GIS system can also provide additional information to the public via on-line databases which may further reduce foot-traffic in the office.

## Appendix A

**Total Water Enterprise Appropriation**

	<b>FY2005</b>	<b>FY2006</b>	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
<b>Water Enterprise Revenues</b>					
User Charges	\$480,000	\$490,000	\$495,019	\$507,302	\$682,500
Connection Fees	4,000	4,000	4,000	6,000	9,500
Water Enterprise Available Funds				200,000	61,029
Investment Income	13,000	5,000	13,000	17,000	8,000
<b>Total Revenues</b>	<b>497,000</b>	<b>499,000</b>	<b>512,019</b>	<b>730,302</b>	<b>761,029</b>
<b>Water Enterprise Expenses</b>					
Salaries and Wages	178,314	191,190	196,600	198,172	202,989
Expenses	139,850	128,950	193,250	201,250	223,660
Capital Outlay - Equipment	40,000	0	0	0	0
Capital Outlay - Improvements	20,000	0	0	0	0
Reserve Fund	4,000	4,000	4,000	0	0
Debt Principal and Interest	20,000	24,000	25,000	225,000	225,000
Cross Connection	6,000	6,000	6,000	6,000	9,500
Other	18,000				
Budgeted Surplus	920	65,305	0	0	0
<b>Total Expenses</b>	<b>427,084</b>	<b>419,445</b>	<b>424,850</b>	<b>630,422</b>	<b>661,149</b>
Indirect Costs	20,927	19,818	21,012	24,331	24,331
Benefits	37,141	42,883	47,607	53,363	53,363
Pension Costs	11,848	16,854	18,550	22,186	22,186
<b>Total Indirect Costs</b>	<b>69,916</b>	<b>79,555</b>	<b>87,169</b>	<b>99,880</b>	<b>99,880</b>
<b>Total Costs</b>	<b>497,000</b>	<b>499,000</b>	<b>512,019</b>	<b>730,302</b>	<b>761,029</b>

Appendix B

**Certified Retained Earnings**

<b>Fiscal Year</b>	<b>Certified Retained Earnings</b>
2005	\$47,690
2006	119,421
2007	*N/A
2008	370,841

\*Retained Earnings were not certified for FY2007

**Water Enterprise Fund Debt**

<b>Fiscal Year</b>	<b>Enterprise Operating Budget</b>	<b>Debt Service</b>	<b>Debt Service as % of Operating Budget</b>
2005	497,000	0	0
2006	499,000	0	0
2007	512,019	0	0
2008	730,302	225,000	30.8
2009	761,029	225,000	29.6

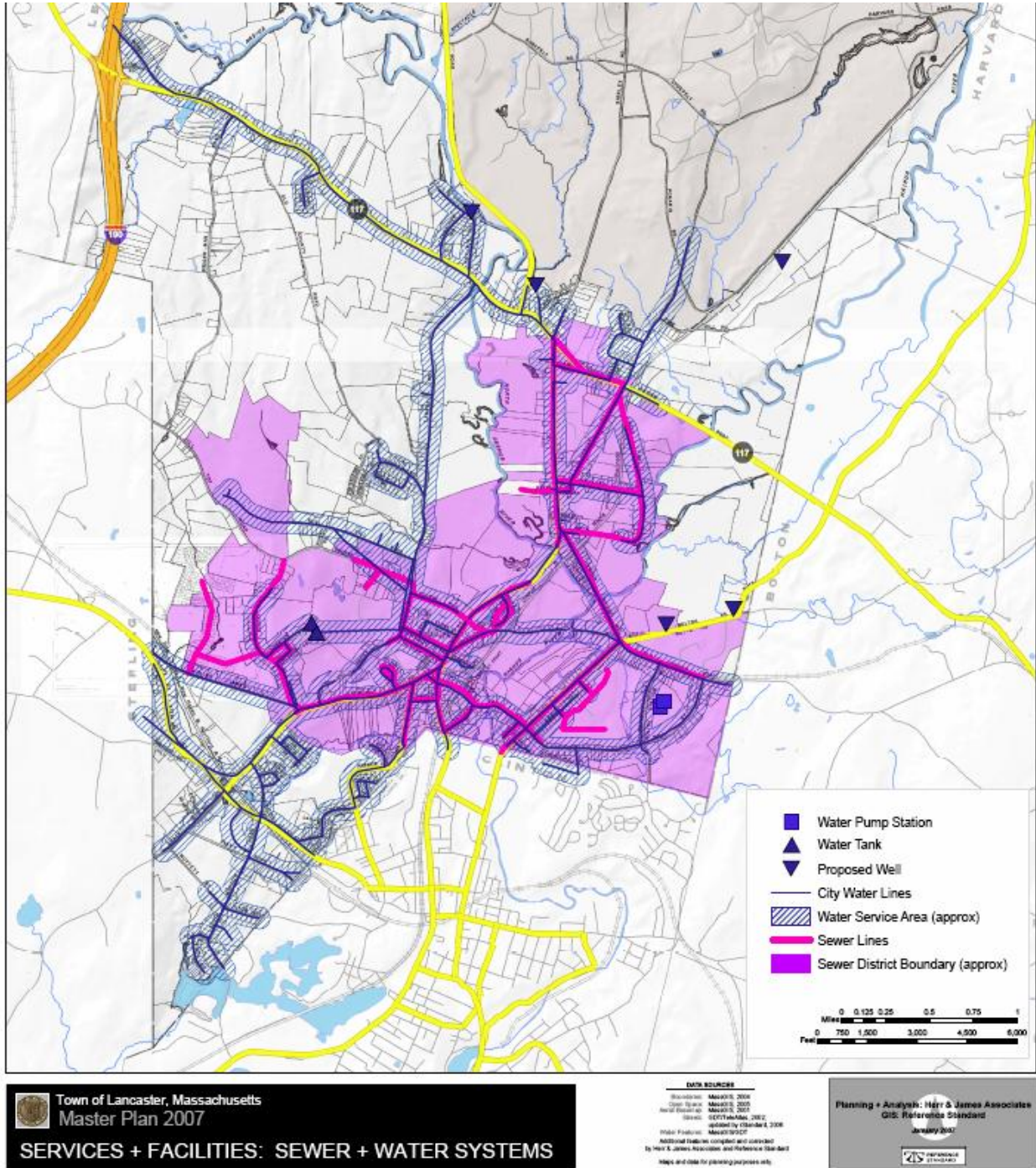
**Municipal Water Enterprise Operating Budget and Debt Service**

<b>Municipality</b>	<b>Total Enterprise Operating Budget</b>	<b>Total Enterprise Debt Service</b>	<b>Debt Service % of Operating Budget</b>
Clinton	2,660,652	1,091,052	41.0%
Fitchburg	5,780,288	2,020,000	34.9%
Groton*	1,308,448	479,861	36.7%
Northborough	1,721,548	303,191	17.6%
Sterling	863,921	324,098	37.5%
Townsend	658,720	148,000	22.5%
<b>Lancaster</b>	<b>730,302</b>	<b>225,000</b>	<b>30.8%</b>
		<b>Average</b>	<b>31.6%</b>

\*FY2009 Enterprise Fund Budget and Debt Service

Appendix C

Town of Lancaster Water System



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## Acknowledgements

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This report was prepared by the  
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DLS interviewed the following individuals and town personnel:

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Jack Sonia, Board of Selectmen and Board of Public Works  
John Wojciak, Chairman, Finance Committee  
Jim Piermarini, Vice Chairman, Finance Committee  
John King, Chairman, Board of Public Works  
Orlando Pacheco, Town Administrator  
Cheryl Gariepy, Finance Director/Town Accountant  
Charlotte LeBlanc, Treasurer/Collector  
John Foster, Department of Public Works Superintendent  
Robert Pelletier, Water Foreman  
Marianne Notaro, Administrative Assistant  
Betty Ann Hart, Administrative Clerk  
Chris Woodcock, Woodcock and Associates, Inc.  
Lee Brown, VADAR Systems, Inc.