

**Massachusetts Department of Revenue**  
*Alan LeBovidge, Commissioner*

*Division of Local Services*  
*Gerard D. Perry, Deputy Commissioner*



# *Town of Hadley*

## *Sewer Department & Enterprise Fund Review*

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*February 2007*

## INTRODUCTION

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At the request of the Hadley Board of Selectmen and Sewer Commission, the Department of Revenue's Division of Local Services (DLS) has completed a limited scope review of the town's sewer department and enterprise fund.

We have based our findings and recommendations on a site visit by two members of the Division's Municipal Data Management and Technical Assistance Bureau. In addition to our initial meeting with the town administrator, a member of the sewer commission, and the sewer department's clerical assistant, the team interviewed the town accountant and collector. We also spoke with the sewer chief operator, the highway/water superintendent, the water resources coordinator, and the town's engineering consultant. DLS staff examined town and sewer-related records and documents, including bylaws, job descriptions, budget information, and commitment/collection data.

During this review, DLS staff focused on: (1) the responsibilities and staffing of the department; (2) the degree of coordination and communication that exists with other town boards, officials and staff; (3) the budget, capital planning process, and other financial management-related activities; and (4) the performance of the sewer operation in such a way as to maximize resources and minimize costs. Our report provides an overview of department responsibilities and presents our observations, conclusions, and recommendations relative to the general efficiency and effectiveness of this operation.

We encourage the selectmen, sewer commissioners, and others, when formulating overall strategies for improving the town's sewer department, to consider the observations, analyses, and recommendations contained in this report. These are recommendations only and can be implemented, at the town's option, provided there is sufficient cooperation among the various town boards, committees, and officials.

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## EXECUTIVE SUMMARY

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Located on the east bank of the Connecticut River, Hadley is a small community of roughly 25 square miles and a population of 4,822 persons (2005 Census Bureau estimate). It is a community with a strong agricultural history that continues to have many acres of active farmland. However, with the availability of open land generally comes a growth pressure that, for Hadley, took shape as both residential and commercial development.

Between 1986-2007, the number of single-family homes has grown from 1,119 to 1,599 units, or an increase of 480 homes or about 43 percent. Over this same period, the town's population grew from 4,120 persons (1986 Census Bureau estimate) to the latest 2005 figure – an increase of 702 persons or about 17 percent. Similarly, town officials reported that commercial development, predominantly located on Routes 9 and 47, also expanded.

As a result of this development and growth, Hadley's budget and services have expanded. Between FY1986-FY2007, Hadley's budget increased from about \$3.7 million to over \$13.5 million, more than tripling. Within its general fund budget, a variety of services are provided, including schools, general government, parks and recreation, public health, and library.

Hadley also provides public water service to about 75 percent of the town and sewer service to nearly one-third of the community. Because these are utility services, the town adopted the state's general enabling enterprise accounting legislation (M.G.L. c. 41, §53F½) in 1993 for both operations.

Acting as the water commissioners, the selectmen adopted a tiered user rate system, which is intended to fairly distribute costs based on levels and type of usage. In other words, low-end users are charged a lower rate because they use less of the resource whereas higher-end users pay at a higher rate because their demand is greater on the system. Annually during the budget process, local officials review the water service's operating needs and set the user rates at a level necessary to recover costs.

Similarly, the sewer enterprise fund is self-sufficient because the revenues raised are sufficient to cover current expenditures. However, the independently elected sewer commissioners have not been as progressive when setting the user fee schedule. Until September 2006, the single sewer rate for all users had been unchanged over the prior four years. Without annual adjustments to the rate, the sewer department has crafted its budget within the limited available resources. Because of these limited resources, the sewer department also has deferred extraordinary maintenance and/or capital improvements, addressing issues only after a problem occurred. Consequently, Hadley is facing a growing list of needed sewer improvements. This includes renovating/replacing the main pump at the wastewater treatment plant, extending the sewer system to properties that are located over the town's aquifers, and replacing older sewer lines.

At the urging of a newly elected commissioner, the sewer department has begun taking a more proactive approach to managing the sewer system. At the request of the commissioners, the 2006 annual town meeting appropriated \$90,000 to replace two of the four aerators at the wastewater plant, which should improve the efficiency of the system and reduce operating costs, and \$32,000 to hire an engineering firm to design a needed expansion in the service. Both projects were funded with sewer

enterprise retained earnings, or net assets unrestricted, which now has a certified balance of \$259,462 (as of 7/1/2006). The commissioners also hired a consultant to develop a multi-year capital replacement/improvement plan and are proposing for town meeting action amendments to their regulations that would help enforce the required connection of all buildings on parcels abutting the existing sewer lines. In addition, the commission raised the sewer user rate to \$4.40 per 100 cubic feet of water for residential consumers and established a separate commercial rate of \$4.52 per 100 cubic feet of water.

As a part of this new management perspective, the sewer commissioners, jointly with the selectmen, requested the consulting services of the Division of Local Services (DLS). In this report, the recommendations are intended to present best practices for managing the sewer department and enterprise fund. If adopted, these recommendations would assist the community in its stated goal of providing the best service at the most affordable price to the ratepayers. Therefore, we recommend that Hadley:

1. Conduct an annual costing analysis of the sewer service
2. Pro-rate indirect charges & settle actual costs at year-end
3. Adopt tiered sewer user rates
4. Implement technological improvements
5. Establish sewer reserves and policy
6. Combine the sewer operation into a department of public works

In other recommendations, we address a couple of financial planning and personnel issues. We recommend that the town:

7. Develop a multi-year revenue and expenditure forecast
8. Provide separate assistants to the treasurer and accountant

## SEWER DEPARTMENT

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The Town of Hadley public sewer system, which is over 40 years old, is made up of a wastewater treatment plant, nine pumping stations, and approximately 75,000 linear feet of service lines. Hadley's sewer department services about 930 users. Generally, these service connections are in the commercial corridors along Routes 9 and 47 and residential areas surrounding the town's drinking water wells.

A chief operator, an assistant chief operator, and a mechanic staff the department. The chief operator oversees the daily operations (e.g., wastewater treatment plant, pumping stations, sewer collection system, and laboratory testing) and manages the staff. He reports to the elected, part-time, three-member commission. One of the town administrator's assistants also provides part-time (five hours per week) clerical support to the commission and the chief operator.

While the sewer department is organized separately, it works closely with the 11-member highway/water department, which is overseen by a superintendent who reports through the town administrator to the selectmen<sup>1</sup>. Both departments provide staff coverage and/or assistance for the other when a staffing shortage or an emergency occurs. The highway/water department also collects the water readings semiannually that are used to produce the combined water and sewer bills. The staff records the readings manually. Most readings are recorded on paper cards and some (predominantly the commercial district of town) are entered into touch pad units, which are turned over to the collector's office. Because the collector's billing and collection software application has not been modified to accept an electronic upload from the touch pads, all data is entered manually.

Currently, the construction of a \$3.9 million treatment plant to address contamination and water quality issues is one of the primary focuses of the highway/water department. However, the highway/water department has been replacing older and/or problematic meters and installing radio-read units as funding and staff time are available. These newer installations, mostly in the commercial structures and some in residences, are designed to emit a radio frequency that would enable the town to collect readings wirelessly, which could then be transmitted to the collector's office electronically. Unfortunately, Hadley has not taken advantage of the wireless technology or electronic transfer of data because the town has not purchased an antenna system, programmed the data collection route information, or made modifications to the collector's billing and collection software application. It is estimated that these will cost the town between \$10,000-\$15,000. Once completed, about 400 meters could be read electronically and the data could be uploaded to the collector's system, reducing the water reader's and collection staff's workloads.

The sewer enterprise FY07 operating budget is about \$669,000. This included salaries, general operating expenses and supplies, employee health insurances and pension costs, and sewer-related debt service. Because it is the town's expectation that the service is self-sufficient, a portion of the town hall personnel costs and general expenses, or indirect costs, also is charged to the sewer department.

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<sup>1</sup> Prior to 1971, Hadley had a separate water district. Through special legislation (Chapter 714 of the Acts of 1971), the district was dissolved and a water department was created under the selectmen's control.

Based on a predetermined formula, over \$57,000 in indirect town hall costs will be charged to the sewer department in FY07. Indirect costs are charged at mid-year for the entire estimated amount.

The operating budget is supported predominantly with recurring sewer revenues including user fees and private septage charges. In recent years, however, the operating budget also has been funded with non-recurring revenues, such as late interest charges and connection fees, which is not a best business practice.

When appropriated, capital and non-recurring costs are funded with sewer enterprise retained earnings that are certified annually by the Director of Accounts, similar to the free cash process. Because Hadley does not have a reserve policy and does not build reserves into the rates, the amount certified is solely the result of the prior fiscal year's operation and subject to fluctuation.

Historically, Hadley has not prepared any long-range financial or capital plans. In 2005, the town completed a master plan that cited the need to coordinate independent operations and to develop long-term financial goals of the community. The master plan recommended that the town create a long-term capital planning process to identify and prioritize the infrastructure and capital needs of the community. The master plan also recommended that the town create a consolidated department of public works, combining the highway, water, sewer, engineering, and facilities operations.

In response to one of the master plan recommendations, Hadley adopted a capital planning committee bylaw in May 2006. Based on an inventory of town-owned equipment, buildings, and (most) infrastructure and on the input of department heads, the capital planning committee prepared a 5-year plan (with additional notations that go out almost 50 years). For the sewer department, the capital plan only provides for the replacement of a truck in FY08. There is nothing noted for plant or line improvements/replacements.

As previously noted, the commission has deferred maintenance and/or capital improvements in order to keep sewer user charges low. This has resulted in a growing list of needed improvements that the commission is beginning to address in FY07. Using sewer enterprise retained earnings, the town appropriated \$90,000 to replace two of the four aerators at the wastewater plant, which should improve the efficiency of the system and reduce operating costs. The sewer department hired a consultant to develop a multi-year capital replacement/improvement plan, which will be submitted to the capital planning committee and built into the future planning efforts for the department. The commissioners also are proposing amendments to their regulations to enforce the required connection of all buildings on parcels abutting the existing sewer lines. To offset its increasing operating costs, the commissioners raised the sewer user rate for the first time in four years to \$4.40 per 100 cubic feet of water for residential consumers and established a separate rate (\$4.52 per 100 cubic feet of water) for commercial customers.

## RECOMMENDATION 1: CONDUCT AN ANNUAL COSTING ANALYSIS OF THE SEWER SERVICE

We recommend that Hadley annually prepare a costing analysis of the sewer operation. The primary purpose of this analysis would be to disclose the full, true cost of providing the service,

including direct and indirect costs, employee insurance, debt service, and capital expenditures. Within this annual analysis, charges to the enterprise fund for indirect costs should be reviewed to ensure they reasonably reflect the value of town employees' time attributable to the sewer service. With complete information, Hadley would be better able to set the user fee(s) necessary to recover all costs.

## RECOMMENDATION 2: PRO-RATE INDIRECT CHARGES & SETTLE ACTUAL COSTS AT YEAR-END

Rather than assessing the lump-sum amount at mid-year, we recommend that the town accountant charge the sewer enterprise fund for indirect costs on a pro-rated basis during the year and settle any budget-to-actual variance at year-end. This will distribute these charges proportionately over the year (e.g., quarterly or monthly) and better reflect the year-to-date expenditures for the sewer department. Any excess/shortfall in the budgeted charges would be applied/reversed during the year-end closing process.

## RECOMMENDATION 3: ADOPT TIERED SEWER USER RATES

We recommend that Hadley adopt tiered sewer user rates, consistent with the water rate structure. While the water department adopted the tiered rate system to encourage conservation, it also was done to fairly distribute the cost. A tiered rate system should be reflective of the different plant and system capacity needs, charging higher rates to those users that demand more of the sewer system.

## RECOMMENDATION 4: IMPLEMENT TECHNOLOGICAL IMPROVEMENTS

We recommend that Hadley begin implementing technological improvements that will reduce operating costs and improve the utility billing process. With an investment of about \$10,000-\$15,000, which would be allocated between the water and sewer enterprise funds, the town could install the radio read antenna and complete necessary software programming. As a result, with wireless technology and electronic data transfers, the town would be able to read meters and bill customers quickly and efficiently, thereby reducing the staff time required from weeks to days.

We recommend that the town consider billing the non-residential users quarterly. With collections occurring four times a year rather than two, the sewer enterprise fund would have access to its user fee revenues earlier. This would improve the cash flow of the fund and provide opportunities for increased investment income. Because sewer user charges are based on water meter readings that are collected by the highway/water department, implementation of this proposal would require joint discussion between the two operations. The sewer department also would have to budget for some additional cost associated with the quarterly billing (i.e., collector's staff time, bill forms, envelopes, and postage), if the community mails four times a year.

When updated meters are installed throughout Hadley, the town should consider billing all users quarterly. A townwide quarterly billing system would further improve the enterprise fund's cash flow. For ratepayers, a quarterly billing would result in smaller bills that would be easier to pay timely.

## RECOMMENDATION 5: ESTABLISH SEWER RESERVES AND POLICY

We recommend that Hadley establish a sewer reserve policy. A formal written policy that establishes guidelines for funding and maintaining reserve(s) can help a community sustain operations during difficult economic periods. Reserves can be used to finance unforeseen or emergency needs, to hold money for specific future purposes, to help offset long-term borrowing costs of major projects, and, in limited instances, to serve as a revenue source for the annual budget. As options, the town can create any or all of the following:

1. **Build up retained earnings.** Based on conservative revenue estimating practices and turnbacks of unexpended appropriations, the retained earnings of the enterprise fund could be built up. This revenue source could be used to fund unanticipated costs, one-time expenditures, and/or to make up any shortfalls in the sewer's projected revenue estimates. Reserves, or any non-recurring revenue source (e.g., connection fees), should not be used to regularly fund operating expenses unless provisions are made to replenish the reserves. A reserve is intended to allow a community the flexibility to review and correct its problems over the long run.
2. **Establish a finance committee sewer enterprise reserve fund.** Appropriations to this reserve fund should be made annually as a part of the budget process. This reserve should be used to fund unanticipated costs only. Following the same guidelines for the general fund reserve fund (M.G.L. c. 40, §6), the enterprise reserve fund would be transferred by finance committee action rather than having to wait for the next scheduled town meeting. At the close of the fiscal year, any remaining balance in this reserve fund would close to the enterprise fund balance, which will translate into retained earnings and could be used to address long-term capital needs of the community.
3. **Establish a special sewer enterprise stabilization fund (M.G.L. c. 40, §5B).** Once established, certified sewer enterprise fund retained earnings and/or amounts raised in the annual budget process for this purpose may be transferred into the sewer stabilization funds by a two-thirds vote of town meeting. This will enable the community to build up this savings to fund/help offset equipment replacements, new acquisitions, and/or capital improvements. It should be noted that, while the purpose of a special stabilization fund may be changed by town meeting, it is DOR's legal opinion that because the source of the funding is restricted that sewer fund contributions would continue to be restricted to sewer uses, which would not apply to general fund revenues appropriated to this fund.



## RECOMMENDATION 6: COMBINE THE SEWER OPERATION INTO A DEPARTMENT OF PUBLIC WORKS

We recommend that the town create a consolidated department of public works under one director. Given the growing costs and limited resources of the town, a more cohesive structure would enable Hadley to improve coordination of its “public works” operations (e.g., roads, water, sewer, facilities, engineering, and cemeteries). The director would be accountable to the selectmen via the town administrator.

Increasingly, communities are changing their organizational structure to enhance accountability and improve efficiency. They are moving away from departments reporting to part-time boards, which have no reporting relationship with the town administrator or selectmen, and toward line accountability to a central management authority. Centralizing the community’s reporting structure allows the town to funnel its business through the administrator, who is responsible for coordinating services. This improved coordination eliminates duplication of effort, avoids departments working at cross-purposes, and provides a more effective management model. To achieve this type of management model, Hadley would need a special act of the legislature that would consolidate the separate operations and transfer the oversight responsibilities from the sewer commissioners to the selectmen.

## RECOMMENDATION 7: DEVELOP A MULTI-YEAR REVENUE AND EXPENDITURE FORECAST

We recommend that Hadley develop a multi-year revenue and expenditure forecast. With assistance from the town’s financial officers, the town administrator should produce a forecast for all operating funds. The forecast should span between three and five years and be updated routinely as new information becomes available. To assist communities, DOR has developed a revenue and expenditure forecasting application<sup>2</sup> that Hadley should consider using. Forecasting, used in conjunction with the town’s long-term capital plans, would enable town officials to evaluate the multi-year impacts of budget requests. It would help to identify programs that may not be funded or capital requests that would have to be deferred, and to develop long-range financial plans.

## RECOMMENDATION 8: PROVIDE SEPARATE ASSISTANTS TO THE TREASURER AND ACCOUNTANT

We recommend that two separate persons serve as the assistants to the treasurer and accountant. Currently, one assistant serves both the accountant’s and treasurer’s departments, and has access to each office’s records, which is not a best business practice. People with access to cash should not have access to the accounting records too. In order to create a system of checks and balances that will safeguard the community’s assets, these offices should operate independently at all times. These offices should not have access to one another’s information and should not share staff.

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<sup>2</sup> This Excel spreadsheet-based tool may be found on DLS’ website, [www.mass.gov/dls](http://www.mass.gov/dls), under the Financial Management Assistance section.

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## ACKNOWLEDGEMENTS

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This report was prepared by The Department of Revenue, Division of Local Services.

Gerard D. Perry, Deputy Commissioner

The project staff included:

Frederick E. Kingsley, Bureau Chief

Municipal Data Management and Technical Assistance Bureau (MDM/TAB)

Joe Markarian, Supervisor

Technical Assistance, MDM/TAB

Melinda J. Ordway, Senior Project Manager/Financial Analyst

Technical Assistance, MDM/TAB

Scot Keefe, Project Manager

Technical Assistance, MDM/TAB

In preparing this review, DLS interviewed or had contact with the following persons:

David Nixon, Town Administrator

Janice Kangas, Town Administrator's Assistant

John Mieczkowski, Sewer Commissioner

Dennis Pipczynski, Sewer Chief Operator

Michael Klimoski, Highway/Water Superintendent

Joseph Lanzafame, Water Resources Coordinator

Gail Weiss, Town Accountant

Joanna Devine, Collector

Thomas Couture, P.E., Tighe & Bond