

Regional Infrastructure Department Implementation Plan

Prepared for the

Towns of Wenham and Hamilton, Massachusetts
And the Hamilton-Wenham Regional School District

February 2014

Edward J. Collins, Jr. Center for Public Management

MCCORMACK GRADUATE SCHOOL OF POLICY AND GLOBAL STUDIES



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EXECUTIVE SUMMARY

The Collins Center at the University of Massachusetts Boston was hired by the Town of Wenham to develop a regional infrastructure department implementation plan for the Town of Hamilton, Town of Wenham, and the Hamilton-Wenham Regional School District (HWRSD). Funding for the project was provided by the Commonwealth's Community Innovation Challenge (CIC) Grant Program managed by the Massachusetts Executive Office for Administration and Finance.

Several documents were prepared in the course of developing the implementation plan and are attached as part of this report. These include:

- **Organizational Assessment:** the purpose of the Organizational Assessment is to: a) quantify the resources needed to establish a new regional public works department; b) assess whether those resources are available or could be made available; c) prepare a recommendation of those functions that could be merged; and, d) make recommendations on an organizational structure and governance framework;
- **Descriptive Profile:** the Descriptive Profile provides an overview of the responsibilities of and resources available to the three departments considered for consolidation;
- **Legal Framework:** the Legal Framework outlines the history of shared services between the towns of Hamilton and Wenham, describes the legal context within which inter-municipal agreements are prepared in Massachusetts, and offers considerations for any agreement related to consolidated public works services;
- **Review of Bargaining Agreements:** in the Review of Bargaining Agreements, key provisions of the agreements in effect in Hamilton and Wenham are outlined and differences identified; and,
- **Action Plan:** the Action Plan provides a framework for action moving forward.

Collectively, these five reports constitute the implementation plan.

Process

The Collins Center project team worked with a Steering Committee representing the towns of Hamilton and Wenham, and the Hamilton-Wenham Regional School District. The Committee met seven times between August 2013 and February 2014. As a group, they discussed the findings of the reports prepared by the Center and spent considerable time considering the optimal structure of and resources needed by a consolidated public works department. In recognition of the complexity of the subject matter, the Committee agreed that considerable public outreach would be needed and, on behalf of the Committee, the Town of Wenham applied for a second round of grant funds that would allow for the broad distribution of the findings of this report and for extensive discussion among community members, elected officials, and staff of the respective towns and school district., along with hardware and software to help implement the report. It is expected that this outreach and dialog will further enhance the work completed to date.

Findings and Recommendation

Based upon the analysis performed, the project team recommends that the public works functions of the two towns and school district (with the exception of the water departments) be consolidated into one department housed within a new municipal organization that does not exist today. As described in the Organizational Assessment, the functions recommended for consolidation include:

- Facilities maintenance;
- Fleet maintenance and repair;
- Parks, cemeteries, and streets;
- Yards, fueling stations, and procurement; and,
- Highways.

The purpose of the new municipal organization would be to provide consolidated management and governance of the above-listed functions in a manner that is fiscally responsible and accountable to its three customers. The organization would be led by a 3-member governing body consisting of the Town Manager of Hamilton, Town Administrator of Wenham, and the School Superintendent. The project team further recommends that on several occasions during the course of each year the board hold expanded meetings that would include the participation of additional officials from the towns and school district.

In recognition that the process of establishing a new organization will take some time, the project team has defined an interim alternative that would consolidate the facilities maintenance functions in one of the towns and all other functions in the other town. This would allow all parties to begin to benefit from partial consolidation in the short term, while also serving as a foundation for future consolidation.

One important finding made in the organizational assessment is the severe understaffing of the facilities maintenance functions in the towns and school district. In fact, where 11 full time equivalents (FTE) are needed based upon the collective building square footage, only have 4.3 FTE collectively can be found across all three organizations today. To address this, and to set the consolidated organization up for success as opposed to failure, the project team is recommending the near term addition of four FTEs for facilities maintenance, including one foreman and three trades workers. When taking into account savings that can occur as a result of consolidation, the increased costs of these positions are estimated at approximately \$121,000 in the full consolidation alternative and approximately \$191,000 in the two department, interim model. As the positions are filled and employees trained, the towns and district can consider whether additional positions should be added. Although this represents a short term increase in operating costs, by performing adequate facilities maintenance the towns and districts can help avoid significant capital costs that can be generated by deferred maintenance, costs vividly exemplified by the over \$5 million in school facilities repairs that have been needed in recent years.

Chapter 1

Organizational Analysis of Infrastructure Maintenance Operations

Prepared for the

Towns of Wenham and Hamilton, Massachusetts
And the Hamilton-Wenham Regional School District

February 2014

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INTRODUCTION

The purpose of this **Organizational Assessment** is to: a) quantify the resources needed to establish a new regional public works department; b) assess whether those resources are available or could be made available; c) prepare a recommendation of those functions to be merged; and d) make recommendations on an organizational structure and governance process.

BACKGROUND

The project team from the Edward J. Collins, Jr. Center for Public Management at the University of Massachusetts Boston and members of the Steering Committee representing Hamilton, Wenham, and the Hamilton-Wenham Regional School District (HWRSD) have worked together over the past few months to document the existing responsibilities of each of the public works and facilities departments and resources available to them. The results of this effort can be found in the Descriptive Profile of Operations.

Building upon the Descriptive Profile, the group then sought to identify what resources would be needed to successfully operate a combined department. This analysis takes into account the full extent of roads, facilities, parks, trees, cemeteries, etc. that must be managed and maintained as part of the public works functions for the two towns and the school district. The group then developed a series of different merger options and evaluated their merits.

RESOURCE NEEDS

One of the first steps in the analysis was to determine the staffing levels needed to adequately maintain the assets of the towns and School District, including facilities, parks and open space, roads, cemeteries, and equipment, with the recognition that if the combined department is not adequately resourced, it will not be successful in meeting the needs of all of its many customers. While combining the departments is likely to produce some efficiencies, what must be determined is whether those efficiencies are of sufficient magnitude to close any existing gaps in service.

To evaluate the resource needs of a combined department, the project team utilized a series of ratios that identify staffing needs by type of infrastructure. These ratios have been developed by the project team over years of research into professional standards and best practices, coupled with professional experience gathered in working with other communities. The project team applied the ratios to the combined infrastructure across all three organizations. What this revealed is that the existing staffing alone is not adequate to maintain all of the combined assets.

As can be seen in below, a combined department would require between 27.5 and 31.5 FTEs to maintain the existing infrastructure, whereas only 16.5 FTEs currently work for the three departments. When

considering the specific areas of service, it is revealed that with a deficit of nearly 10 FTEs, the facilities maintenance function has the greatest variance between required and actual staffing when taking into account the over 570,000 square feet of buildings that must be maintained each year. Highways and parks/cemetery have a much smaller variance, with a combined deficit of 2 FTEs, and fleet maintenance is adequately staffed and may actually have the capacity to take on responsibility for additional vehicles.

In terms of administration, both organizations have a public works director, at 0.6 and 1.0 FTEs in Hamilton and Wenham respectively, and two administrative assistants. In a combined department, only one director would be needed, providing some resources that could be redeployed elsewhere.

RATIO OF STAFFING TO INFRASTRUCTURE			
Service	Infrastructure	Current Staff	Required Staff
Facilities	572,262 sq ft	4.3 FTE ¹	11 FTE
Fleet Maintenance	109.4 VEU	2 FTE	1.5 FTE
Highway	81.85 Ctr. Line Miles	6 FTE	7-10 FTE
Parks/Cemetery	32.5 acres	7 FTE	5-6 FTE
Yards, Fueling, and Procurement		0 FTE	0 FTE
Administration	Approx. \$3.7m & 27 FTE	3.6 FTE	3 FTE
Total	NA	16.5 FTE	27.5-31.5 FTE

In the Alternatives section of this report, options on how to address these shortfalls will be discussed.

¹ There are 2.0 facilities directors, 1.0 utility man, and 13 head custodians, custodians, and part time custodians. As will be explained in the next section, the project team estimated that these custodial workers each provide the equivalent of 0.10 FTE in terms of their facilities maintenance duties. Therefore, applying this percentage to the 13 custodial staff, there are 1.3 FTEs, plus the 3.0 FTEs facilities maintenance staff, for a total of 4.3 FTEs.

REVIEW OF ALTERNATIVES

This section of the report analyzes the identified alternatives for consolidation between the towns of Hamilton and Wenham and the Hamilton-Wenham Regional School District (HWRDS). The Steering Committee and project team have identified seven (7) consolidation alternatives. These include:

- Facilities maintenance;
- Fleet maintenance and repair;
- Parks, cemeteries, and streets;
- Yards, fueling stations, and procurement;
- Water departments,
- All; and,
- No change.

Although they represent distinct options, they can also be contemplated as part of a phased approach toward full implementation of consolidation. After each of the alternatives is considered, specific implementation recommendations are made.

ALTERNATIVE 1: CONSOLIDATE FACILITIES MAINTENANCE

The Towns of Wenham and Hamilton currently share a Facilities Director who maintains all structures of both towns. The School District has a full time facilities director who works with the head custodians and custodians assigned to the different school facilities. This alternative analyzes the feasibility of formalizing the merger of facilities maintenance and management of both towns, as well as the HWRSD.

Current Operations

The following table provides the current resources allocated to the facilities maintenance function in Hamilton, Wenham, and the HWRSD, as well as the infrastructure maintained.

Category	Hamilton	Wenham	HWRSD	Total
Staff	<ul style="list-style-type: none"> • Facilities Director (0.5 FTE) • Some assistance from Town Electrician 	<ul style="list-style-type: none"> • Facilities Director (0.5 FTE) • Utility Man 	<ul style="list-style-type: none"> • Facilities Director • Head Custodian (5) • Custodian (7) • PT Custodian (1 FTE) 	<ul style="list-style-type: none"> • Facilities Director (2) • Utility Man • Head Custodian (5) • Custodian (7) • PT Custodian (1)
FY 13 Budget	\$259,625	\$130,354	\$1,077,064	\$1,467,043
Infrastructure	68,758 sq. ft.	133,464 sq. ft.	370,040 sq. ft.	572,262 sq. ft.

The budgets for facilities maintenance in the three organizations include amounts for non-custodial contracted services, which are as follows:

Organization	Contracted Repairs
Hamilton	\$30,421
Wenham	\$16,800
HWRSD	\$132,151
Total	\$179,372

Based upon the square footage of space to be maintained, the project team estimates that 11 FTEs are required to maintain the combined facilities. This figure has been determined by the results of an International Facilities Maintenance Association (IFMA) survey², which established a benchmark of 45,000 to 50,000 square feet of facility maintained per FTE, a figure which has been verified by many years of observations by the project team in well-managed facilities maintenance organizations. (With 572,262 square feet of building space to maintain, the combined operation would require between 11.44 and 12.72 FTEs.) With 11 FTEs, the organization would be able to invest in significant preventative maintenance, with a goal of avoiding the type of multi-million dollar repairs needed in the schools during the past few fiscal years. Based upon the current staffing levels, consisting of 2.0 FTEs facilities directors and 1.0 FTE utility man, this suggests a gap of 8 FTE. However, when taking into account

² IFMA, "Operations and Maintenance Benchmark Survey", 2005. This survey of over 650 members indicated that the average rentable area per trades maintenance worker was approximately 47,000 square feet.

existing staffing resources and contractual expenditures, the gap is reduced.

In addition to the maintenance and repair services provided by the staff who are dedicated to maintenance activities, the School District employs the equivalent of 13 custodial employees. These custodians are primarily engaged in activities such as sweeping, mopping, ensuring restrooms are clean and adequately stocked, emptying waste cans, and similar services. However, these employees are also capable of light maintenance related to toilet repair, light bulb changes, structural repairs (cabinetry, doors, etc.), and other activities that would normally be performed by trades maintenance staff if custodians were not available. It is the understanding of the project team that these duties account for about 10% of a typical HWRSD custodial employee's time. When this metric is applied to the 13 existing custodians, it translates into an additional 1.3 FTE (13*10%), who can be considered "facilities maintenance" staff.

Further, as can be seen from the table above, non-custodial contracted services accounted for \$179,372, or about 12.2% of the total combined budgets of \$1,467,043. Utilizing an estimated a salary of \$53,500 and 10% for fringe benefits, the contractual funds could be converted into 2.5 FTEs, while still allowing some funds to remain for continued contractual services that would not be done staff, such as elevator inspection/repair and significant plumbing work.

Collectively, with the 3.0 FTEs town and district employees, the 1.3 FTEs custodial staff, and the amount spent on contractual services, which translates into 2.5 FTEs, the total equivalent number of facilities maintenance staff is approximately 6.8 FTEs at present. This remains approximately 4.2 FTEs below the optimal staffing level recommended by the project team.

In order to add four additional FTEs and further close the gap between existing resources and the staffing needed, as identified by the project team, an additional \$235,400 in additional funding will be needed.

Operational Impacts of Consolidation

The three facilities maintenance organizations are responsible for a combined 572,262 square feet of space. This is currently maintained by 3.0 FTEs, but, as was noted above, these employees are supplemented by contract service providers and custodial staff. However, even if it can be assumed that the facilities maintenance efforts of these employees equates to 6.8 FTE, the ratio of maintainable space per employee is 84,156 to 1, which far exceeds the IFMA benchmark of 45,000 to 50,000 square feet per FTE.

The impact of the deficit in facilities maintenance staffing is that preventive maintenance is not being performed to any significant degree in any of the town or school facilities. This is verified both through project team observations and interviews with staff. Contractors are exclusively used for emergency repairs, for specialized services, or for repairs that relieve peaks in workload volumes of the staff. Additionally, custodial staff do not perform any meaningful work on major maintenance equipment, such as boilers, chillers, air handlers, plumbing fixtures, or other similar equipment. Therefore, the Hamilton-Wenham Facilities Director and the Utility Man are the only employees available for preventive maintenance, and only one of these (the Director) is available to work on Wenham facilities. Clearly, preventive maintenance is an area that should be enhanced in all facilities.

Findings and Recommendations

While consolidating the two towns' and HWRSD's facilities operations will provide more flexibility in the deployment of staff, the consolidated organization would remain significantly under-staffed and unable to provide sufficient levels of preventive maintenance without additional funding. In the estimation of the project team, the consolidated organization would immediately need four additional staff members to begin to address maintenance issues. While all the new staff should have general maintenance skills, it would be optimal to identify one or more who have proficiency in plumbing and HVAC maintenance. This would leave electrical repairs and significant plumbing work to be done through contracted services. Other skills would include basic carpentry, painting, mechanical, plumbing, and electrical. These workers would, of course, be available for emergency repairs. However, the intent should be that they are dedicated to the greatest degree possible in preventive maintenance activities. Studies have shown that the investment of time and financial resources into preventive maintenance returns \$2 in savings for every \$1 invested.³ As noted above, interviews and observations by the project team indicate that there is no preventive maintenance program for towns or School facilities.

There are many reasons for instituting an effective preventive maintenance program. These include the following:

- Better conservation of assets and increased life expectancy of assets, thereby eliminating premature replacement of machinery and equipment.
- Reduced overtime costs and more economical use of maintenance workers, due to working on a scheduled basis instead of a crisis basis to repair breakdowns.
- Timely, routine repairs circumvent fewer large-scale repairs.
- Reduced cost of repairs by reducing secondary failures. When parts fail in service, they usually damage other parts.
- Identification of equipment with excessive maintenance costs, indicating the need for corrective maintenance, operator training, or replacement of obsolete equipment.
- Improved safety and quality conditions.

The consolidated organization should first define the inventory of systems for which it is responsible. The project team has provided a sample systems and components listing in Appendix A that may serve as a starting point in defining this inventory. The organization should then define the service levels for each of these systems and components. These may correspond to manufacturers' recommended services and intervals, or they may be modified based on actual experience.

Recommended Action: The project team recommends that the towns of Hamilton and Wenham and the HWRSD formally consolidate their facilities maintenance functions into a single organization. Further, given the lack of focus on preventive maintenance of buildings in the recent past, the project team recommends that the organization hire four trades workers (one of whom would serve in the capacity of Foreman) who would focus on establishing and implementing a comprehensive preventive maintenance program. The project team makes no definitive recommendation on the skill mix of the

³ "From Preventive to Proactive", Public Works Magazine, November, 2007.

four trades workers. However, a review of the recent contractual expenditures indicates that the large majority of the work has been for HVAC and plumbing repairs, which strongly indicates an internal need for these skills. After the four trades workers have been fully trained, the results of their efforts can be measured, and the towns and school district can then determine whether that staffing contingent is sufficient to adequately maintain the square footage of the towns and schools facilities inventory. Over time, as staff expertise and efficiencies grow, funding for the new positions can be offset to some degree by a reduction in contractual services. The total cost of the four trades workers, assuming a 10% fringe benefits rate (as used by both towns), would be approximately \$241,450.⁴

⁴ This assumes a direct salary of \$53,500 for the three trades workers and \$59,000 for the Foreman position.

ALTERNATIVE 2: CONSOLIDATE FLEET MAINTENANCE AND REPAIR

The towns of Hamilton and Wenham each currently provide repair and maintenance services for their respective town fleets. This alternative analyzes the feasibility of merging these two separate functions.

Current Operations

The following table provides the current resources allocated to the fleet maintenance function and the equipment maintained in Hamilton and Wenham.

Category	Hamilton	Wenham	Total
Staff	<ul style="list-style-type: none"> • Foreman • Part time mechanical repair in Fire Dept. 	<ul style="list-style-type: none"> • Mechanic 	<ul style="list-style-type: none"> • Mechanic (1) • Foreman (1)
FY 13 Budget	\$53,267	\$52,000	
Equipment	<ul style="list-style-type: none"> • Patrol units (5) • Trailer (9) • Utility truck (7) • Service truck (4) • Pickup (11) • Van (1) • Concrete Mixer (1) • Leaf Vacuum (1) • Tractor (6) • Loader (2) • Air compressor (1) • Chipper (1) • Backhoe (1) • Total = 50 	<ul style="list-style-type: none"> • Patrol units (5) • Van (1) • Utility truck (3) • Pickup (2) • Dump (5) • Trackless (1) • Leaf Vacuum (1) • Loader (1) • Mower (1) • Bobcat (1) • Backhoe (1) • Multiple pieces of small engine equipment and attachments • Total = 22 units plus small engines and attachments 	<ul style="list-style-type: none"> • Patrol units (10) • Van (2) • Trailer (9) • Pickups (13) • Utility truck (10) • Service truck (4) • Dump (5) • Trackless (1) • Concrete Mixer (1) • Leaf vacuum (2) • Loader (3) • Tractor (6) • Mower (1) • Backhoe (2) • Bobcat (1) • Air compressor (1) • Chipper (1) • Total = 72, plus multiple pieces of small engine equipment and attachments
Facility	7-bay garage facility Diagnostic equipment Hydraulic lifts	29-year old facility Large open bay area. 25-ton rotary lift 4.5 ton above-ground lift	

As can be seen above, the two towns possess a total of 72 primary vehicles and pieces of equipment, as well as a variety of small engines (e.g., mowers, string trimmers, generators, pumps, etc.). As also can be seen in the table, Public Works mechanics are responsible for maintaining Police units and smaller equipment in the Fire Department, but they are not responsible for the maintenance of front line fire apparatus. These are currently maintained by two mechanics, one of whom is classified as a foreman.

Operational Impacts of Consolidation

In considering whether the two fleet maintenance operations should be merged, it is important to determine the number of mechanic staff that would be required to properly maintain the combined fleets. One simplistic method for determining the adequacy of staffing in a vehicle maintenance garage is by dividing the number of units maintained by the full time equivalent (FTE) mechanics maintaining them. Known as the “vehicle to mechanic ratio,” this is a crude but quick means of gaining some indication of the adequacy of staffing. In the case of the Hamilton and Wenham fleets, as was shown above, there are 69 units in the fleet being maintained by two FTE mechanics, yielding a vehicle to mechanic ratio of 35:1. This is within the expected range for a typical municipal fleet (between 32: 1 and 42:1) that includes a mix of heavy and light-duty units.

Beyond this rough measure, the industry has evolved over time and has developed a more meaningful ratio for determining the adequacy of staffing in maintenance shops. This method, known as the Vehicle Equivalent Unit (VEU) ratio, accounts for the varying intensities of maintenance required by each type of unit being maintained in the fleet. The use of VEUs is an improvement over the simple statement of the numbers of vehicles and pieces of equipment, since not all require the same intensity of maintenance and repair. The baseline for maintenance and repair is a sedan, which is defined as one VEU. A piece of heavy equipment, such as a backhoe or front end loader, on the other hand, requires more maintenance, and is assigned a VEU of 5. Although the two towns have 72 total vehicles and pieces of equipment, the calculation of VEU for its fleet is 139.9, as the table below indicates.

Category	Number	Total VEU
Patrol Unit	10	15.0
Van	2	3.0
Trailer	9	0.9
Pickup	13	19.5
Utility Truck	10	15.0
Service Truck	4	6.0
Dump	5	15.0
Trackless	1	1.0
Concrete Mixer	1	0.5
Leaf Vacuum	2	1.5
Loader	3	15.0
Tractor	6	18.0
Mower	1	1.0
Backhoe	2	10.0
Bobcat	1	0.5
Air Compressor	1	0.5
Chipper	1	0.5
Small Engines, attachments	Multiple	17.0
Total	72 primary, plus a variety of smaller engines and attachments	139.9

The primary advantage of the use of VEUs is that it allows the assignment of a standard number of hours of expected annual maintenance to each vehicle equivalent. This number can vary for fleets of

exceptionally high or low average age; however, it is typically in the range of 14 to 18 hours of annual maintenance per VEU. If an average of 15 hours of annual maintenance per VEU is assumed, the combined fleet would require approximately 2,098.5 hours of labor (139.9 VEU * 15 hours per VEU).

To determine the number of mechanics required to maintain the consolidated fleet of 72 vehicles and equipment, it is necessary to determine the actual number of hours that mechanics can spend in maintenance and repair efforts in a typical year. Again, this number can vary significantly depending upon a variety of factors. However, the project team uses a figure of 1,381 hours of “wrench turning” time per mechanic, the calculation of which is provided in the table below.

Item	Number of Hours
Total Paid Hours	2,080
Vacation (@12 days per year)	96
Sick Leave	80
Training	40
Lunch/Breaks 200 days * 45 minutes)	150
Meetings	40
Total Available	1,674
Chargeable Rate	82.5%
Total “Wrench Turning” Time	1,381

Note that the table makes an allowance for the chargeable time for mechanics. Although the average mechanic may, in fact, be in the garage for 1,674 hours per year, the reality is that not all of this time will be spent performing maintenance and repair services on a department vehicle. This is due to such activities as cleaning the garage bay in between repairs, completing paperwork, waiting for parts, and discussion related to an upcoming assignment. Generally, between 80% and 85% of all available time can be expected to be chargeable time to a specific work order. For the purposes of the calculation in this instance, the project team uses the midpoint of this range, or 82.5%, to derive a figure of 1,381 total annual “wrench turning” hours per mechanic.

If each mechanic, therefore, expends 1,381 hours on vehicle maintenance and repair, the number of mechanics required to maintain the fleet becomes a mathematical calculation of the number of VEU's divided by the number of chargeable (i.e., “wrench turning”) hours expended in its repair, as the table below shows.

Element	Number of Hours
A. VEU's	136.9
B. Maintenance Hours per VEU	15
C. Annual Hours of Maintenance Required (A*B)	2,053.5
D. Hours of Wrench Turning Time per Mechanic	1,381
E. Mechanics Required (C/D)	1.5

As the table shows, the maintenance of the combined DPW fleet currently requires 1.5 mechanics, according to this methodology. Practically, this means that the two mechanics who are currently maintaining equipment in the two towns would be required to staff the consolidated fleet maintenance garage, but they would have capacity remaining to take on additional vehicles.

Although there are no immediate cost-savings associated with this alternative, there are other benefits

to consolidation, including:

- A greater percentage of available “wrench turning” time, due to the presence of two mechanics rather than one. Currently, if one mechanic is absent, equipment repairs must either be outsourced or must wait until the return of the mechanic.
- The ability for one mechanic to conduct preventive maintenance while the other focuses on emergency repairs. Currently, if an emergency repair occurs, all preventive maintenance ceases until the repair is addressed.
- The ability to assign work to a mechanic in his/her specific area of expertise. Currently, each mechanic must attempt to repair each unit that enters the garage regardless of the specific failure code associated with the repair. Not all mechanics possess the same degree of skill on every mechanical failure, and the presence of two mechanics rather than one increases the likelihood that a specific mechanical failure can be addressed by one of the two mechanics.
- The ability to divide labor. Currently, both mechanics are dedicated to equipment repair in their respective garages. However, as the VEU calculation indicates, there is sufficient capacity through consolidation to allow for one mechanic to function in a more administrative capacity than is currently the case. These administrative functions may include greater automotive parts management, recording of labor in an automated system, preventive maintenance scheduling, replacement decision analysis, and other duties.

The existing Wenham repair facility appears to be the best suited as the home for a consolidated vehicle maintenance function. The Wenham facility is larger and has a 25-ton in-ground lift. Additionally, the larger area allows for the indoor staging of more vehicles and equipment. Further, this consolidation would allow the Town of Hamilton to utilize the space currently dedicated to vehicle maintenance for other purposes.

Findings and Recommendations

Clearly, there are advantages to the consolidation of vehicle maintenance and repair beyond cost savings. The fact that cost savings do not accrue to this particular alternative does not mean that the two towns cannot benefit greatly from the consolidation of the fleet maintenance and management functions. Taking into account that only 1.5 FTEs are required to adequately maintain the current fleet, the project team has noted the advantage of assigning some of the administrative duties to one of the mechanics in order to at least partially utilize the excess staff capacity. In addition, the project team notes that the Fire Department apparatus (i.e., engines, ladders) are not maintained by the PW mechanics. Should the two towns consolidate their currently-separate fleet maintenance functions, they should consider certifying one or both of the mechanics as an Emergency Vehicle Technician (EVT) in order to absorb the responsibility for maintaining the operational pieces of equipment in the respective Fire Departments. This would further fill the excess capacity of the two mechanics, and would allow for the elimination of the need for the part time workers in the Fire Departments who currently maintain these pieces of equipment. Although this alternative will not result in immediate cost reductions, it does offer service-related benefits.

Recommended Action: Consolidate the fleet maintenance management functions of the two towns. This action will not result in immediately observable cost savings. However, there are non-financial benefits that will accrue to the two towns.

ALTERNATIVE 3: CONSOLIDATE GROUNDS MAINTENANCE, CEMETERIES, AND STREET OPERATIONS

The towns of Hamilton and Wenham each maintain one cemetery and a variety of parks and grounds on both town and school properties. The towns also repair, maintain, and perform snow removal operations for over 81 combined center line miles.

Current Operations

The following table summarizes the staffing, budget, and the infrastructure related to the two towns' cemeteries, grounds, and streets.

Category	Hamilton	Wenham ⁵	HWRSD	Total
Staff	<ul style="list-style-type: none"> • Highway Foreman • Equipment Oper. (Hwy) • Laborer/Driver (Hwy) • Foreman (vac.) -Parks • Intern (0.5) - Parks • Cemetery Foreman • Equipment Oper. (Cem) • Intern (0.5) - Cemetery 	<ul style="list-style-type: none"> • Foreman • Driver/Operator (2) • Heavy Equip. Oper.(2) • Seasonal Worker (0.4) 		<ul style="list-style-type: none"> • Foreman (4) 1 vacant • Driver/Operator (2) • Heavy Equip. Oper.(2) • Equipment Oper. (2) • Laborer/Driver (Hwy) • Intern (0.5) - Parks • Intern (0.5) – Cemetery • Seasonal Worker (0.4) Total = 12.4 FTE (1 vacant)
FY13 Budget	<p>Highway Salaries \$188,401 Expenses <u>\$132,750</u> Total Hwy \$321,151</p> <p>Parks & Fields Salaries \$72,651 Expenses <u>\$14,805</u> Total Parks \$87,456</p> <p>Snow Removal Salaries \$72,400 Expenses <u>\$138,000</u> Total Snow \$210,400</p> <p>Cemetery Salaries \$72,397</p>	<p>Streets & Parks Salaries \$338,749⁶ Expenses \$30,900 <u>Str. Main. Ex. \$67,144</u> Total Streets, Parks \$436,793</p> <p>Snow Removal Salaries \$36,050 Expenses <u>\$70,000</u> Total Snow \$106,050</p> <p>Cemetery Burial Agent \$3,264</p>	<p>Highway Expenses \$750</p> <p>Parks & Fields Expenses \$62,294</p> <p>Snow Removal Expenses \$20,607</p>	

⁵ Wenham organizationally combines its streets, parks, and cemeteries operations, with each of the five FTEs performing all functions. Hamilton cross-utilizes positions in these functions as well; however they are identified organizationally as being in a specific divisions and have been described in the table in this manner.

⁶ This figure was derived by subtracting from the total stated budget of \$499,749 the salary for the Director (\$89,000), half of the wages paid to the Administrative Assistant (\$20,000 for the position's time spent in Water Division), and \$52,000 for the Mechanic.

Category	Hamilton	Wenham ⁵	HWRSD	Total
	Expenses \$20,535 Total Cemetery \$92,932	Expenses \$3,500 Memorial Day \$500 Vets Graves \$200 Total Cemetery \$7,464		
	Total \$711,939	Total \$550,307	Total \$83,651	Total \$1,345,897
Cemeteries	• 19 acres at one site	• 7.4 acres at two cemeteries		Total 26.4 acres
Parks and Grounds	• 9 acre Patton Park • 4 playing fields at Donovan, School Street, Fairhaven and Winthrop (approx. 7 acres total) • Total approx. 16 acres	• 16.5 acre Pingree Park		Total approximately 32.5 acres
Streets	• 44.85 paved center line miles • <u>3 miles of gravel roads</u> • 47.85 total miles	• 34 paved center line miles		Total 81.85 center line miles

As can be seen from the table, the two towns have combined budgets of over \$1.3 million for the maintenance of parks, grounds, and cemeteries covering 59 acres of maintainable grounds, and over 81 center line miles of paved and unpaved surfaces. This is maintained by 12.4 FTEs.

Operational Impacts of Consolidation

The towns of Hamilton and Wenham generally provide similar services as they relate to streets and grounds maintenance. These include services such as mowing, landscaping, trimming, pothole patching, trench cut patching, sidewalk repair, and others that are typically provided by public works departments across the state. From a practical standpoint, there is no distinction in the actual work performed in these areas in the two towns; in other words, services such as mowing and pothole patching are the same and can be provided in the same manner, by the current staff, irrespective of which side of the municipal boundary on which they occur.

There are, though, differences in how certain functions are performed, and these represent potential efficiencies in merging the two operations. To illustrate the similarities and differences in service provision, the project team developed the following table.

Function/Activity	Hamilton	Wenham
Trench patch	In house	In house
Pothole patch	In house	In house
Crack seal	Contract	In house
Sidewalk install/repair	Combination	In house
Sign creation/installation	Combination	Combination
Sign replacement	In house	In house
Road striping	In house	Outsource
Culvert/outfall cleaning	In house	In house
Street sweeping	Outsource	Outsource

Function/Activity	Hamilton	Wenham
Catch basin cleaning	Outsource	Outsource
Snow removal	Outsource	In house

Each of the above functions and activities presents potential areas of efficiency. In the cases in which both towns provide the same service with internal staff, a consolidated division of highways or grounds maintenance offers management the opportunity to reallocate certain staff to other activities. For example, trench and pothole patching activities typically require a two-person crew, resulting in four employees being used for these functions in the two towns. Consolidating these services has the advantage of allowing for a single two-person crew to gain efficiencies of scale by repairing a larger number of potholes and trenches, with the other crew dedicated to another activity, or, if a large number of potholes need to be addressed, both crews can work at the same time, thereby reducing the number of total days spent on any one activity.

There are also opportunities in service areas for which one town outsources a function, and the other provides the service internally. For instance, Wenham possesses a crack sealer and utilizes internal staff to fill asphalt cracks. Consolidation offers the potential for utilizing these machines in both towns.

Finally, there are functions that both towns currently outsource, such as street sweeping and catch basin cleaning, that may be candidates for performing with internal staff if the two towns formed a consolidated maintenance division. The Town of Wenham expends about \$5,280 annually on cleaning its 660 catch basins, for an average of \$8.00 per catch basin. The project team does not possess data for the Town of Hamilton., However, it is possible that the unit cost could be reduced for both towns, or, if Hamilton’s current cost is greater than \$8.00 per catch basin, the potential exists to lower its cost through a joint bid for services with Wenham.

Similarly, the Town of Wenham spent \$4,200 last year for street sweeping, which included all streets and parking lots. The area of the parking lots is not known precisely; however, even if this cost included only 68 curb miles (i.e., double the 34 center line miles in the Town), the \$4,200 total cost equates to only \$61.76 per curb mile, which is a reasonable cost in the project team’s experience. Again, the project team does not possess street sweeping cost data for the Town of Hamilton, but the potential exists for lower unit costs through joint purchases of service, or for Hamilton to “piggy back” on the Wenham purchase arrangement.

As is noted elsewhere in this report, neither town utilizes a computerized maintenance management system (CMMS) that would allow for a detailed analysis of time expended by internal crews on specific activities such as the ones provided in the table above. Therefore, it is difficult to know with any precision which activities are consuming the bulk of time in either town. In this case, then, it is necessary to utilize certain benchmarks to determine the staffing that would be required to maintain the two towns’ parks, grounds, cemeteries, and highways. The project team utilizes the following benchmarks to determine adequate staffing levels for streets and grounds maintenance.

- One FTE per 8 to 12 center line miles of paved surface
- One FTE per 10 to 12 developed acre of grounds

There are about 59 developed acres of grounds and 82 center line miles in the two towns, as was shown in an earlier table. This would indicate that between 4.9 and 5.9 FTEs are required to provide a “B” level of grounds maintenance, and between 6.8 and 10.3 FTEs required for maintaining the towns’ paved

surfaces. In a consolidated highways and grounds division, this equates to a need for between 11.7 and 16.2 FTE. Given that there are currently 12.4 FTEs in the two towns' divisions providing streets and grounds maintenance, the current staffing is appropriate for an acceptable level of maintenance of grounds and paved surfaces.

Findings and Recommendations

The two towns have opportunities to increase efficiencies through consolidation of their respective highways and grounds maintenance functions. These include the cross-utilization of specialized equipment, the potential combined procurement of outsourced services, and the enhanced efficiency of staff through a more efficient allocation of work that capitalizes on economies of scale.

The consolidation of the two towns' grounds and highway maintenance functions, with the current levels of staffing, should be adequate to provide a level of service that will allow the combined division to provide a sufficient level of maintenance for the towns' parks and paved surfaces over the near term, and the project team recommends no staffing changes at the current time. Since the Wenham crew performs grounds maintenance and highway maintenance functions as a team, it is not recommended that the grounds maintenance functions be combined by themselves. If the grounds maintenance functions were consolidated, the Wenham crew would be divided, which could reduce capacity to address highway maintenance issues.

Recommended Action: Consolidate the grounds and highway maintenance functions of the two towns. Utilize the combined buying power of the towns to procure street cleaning and basin cleaning services at the best unit cost, and consider whether to perform more snow removal in house. Put into place a computerized maintenance management system with a work order function to track the work efforts of the combined staff.

ALTERNATIVE 4: CONSOLIDATE YARDS, FUELING STATIONS, AND PROCUREMENT

The towns of Hamilton and Wenham each stage their operations from separate yards, located in their respective towns. These yards contain automated fueling systems, storage facilities, and fleet maintenance bays. Currently, the towns also conduct procurement operations separately. This alternative analyzes the potential for consolidating yards, fueling operations, and procurement.

Current Operations

The following table summarizes the yards and fueling operations of the two towns.

Category	Hamilton	Wenham
Yards	Located behind Town Hall at 577 Bay Road. Building space is approx. 5,556 sq. ft. in size.	Located at 91 Grapevine Rd. Includes garage, office, barn and salt shed built circa 1980. Approx. 8,930 sq. ft. in size.
Fueling	Digital automated system	Gas Boy automated system

Operational Impacts of Consolidation

Previous discussions of alternatives have provided analyses of the feasibility of consolidating various functions. Should these functions be consolidated, there are also efficiencies to be gained through the physical consolidation of the facilities from which each of these functions are staged. Currently, all operations of the two towns are staged from the Public Works barns in the respective towns. With functional consolidation, the physical consolidation of maintenance yards becomes an obvious candidate to provide further efficiencies.

The benefits of consolidated yards are clear. The maintenance of one facility rather than two is more efficient from a facilities maintenance standpoint. Further, there are other benefits, including the following:

- The potential for a single automated fueling system;
- The ability to store automotive parts, vehicles, and equipment and field maintenance tools in one facility. This also offers the potential of reducing the overall volume of inventory on hand;
- The ability to issue daily work assignments from one location;
- The potential to provide a single point of delivery for vendors who provide materials and supplies; and
- The efficiency of inventory accounting in one location rather than two. This includes not only the efficiency related to financial accounting, but also the efficiency of physical oversight of the inventory itself.

As can be seen from this partial listing of advantages, several of these offer the additional advantage of

potentially lowering overall costs through cooperative purchasing. For example, bulk purchases of fuel, automotive parts, and materials may result in overall cost savings. Further, combining procurement operations could also result in lower overall costs of fleet purchases, should the two towns fully consolidate their respective fleet maintenance and management functions. Deliveries of large scale items are typically made to a DPW yard, so consolidation of the procurement function at the same time the yard function is consolidated will help ensure that deliveries are made to the correct location. If procurement is consolidated without the yards, savings would occur but a delivery might need to be made to two different locations, adding to the cost, or Town staff would need to relocate materials between yards which will reduce their productivity.

The Wenham yard, which includes a garage, office, barn, and salt shed, appears to be the location most amenable to consolidation. This would open up space behind Hamilton Town Hall for parking and other municipal purposes.

Recommended Action: Consolidate the two towns' yards, fueling locations, and procurement in order to lower costs related to collective purchasing, as well as capital costs related to procurement and installation of two automated fueling stations.

ALTERNATIVE 5: COMBINE WATER DEPARTMENTS

The towns of Hamilton and Wenham each maintain their own potable water systems that draw from the Ipswich River Basin. The towns also repair and maintain miles of distribution lines, fire hydrants, wells, and storage tanks. In Wenham, responsibility for the water system lies with the Water Department, where in Hamilton the functions are part of the Public Works Department.

Current Operations

The following table summarizes the staffing, budget, and the infrastructure related to the two towns' water infrastructure.

Category	Hamilton	Wenham	Total
Staff	<ul style="list-style-type: none"> • Foreman • Distribution Foreman • Operator 	<ul style="list-style-type: none"> • Superintendent • Operator 	<ul style="list-style-type: none"> • Superintendent (1) • Foreman (1) • Distribution Foreman (1) • Operator (2)
FY13 Budget	<ul style="list-style-type: none"> • Salaries & Wages \$146,690 • Expenses \$116,750 • Contract Service \$4,320 • Capital \$15,000 	<ul style="list-style-type: none"> • Operating \$220,000 	<ul style="list-style-type: none"> • \$366,690
Facilities	<ul style="list-style-type: none"> • 54.4 miles of distribution line • 2,500 water meters • 1.2 MGD capacity • 6 wells • 1 storage tanks • 425 fire hydrants 	<ul style="list-style-type: none"> • 28.25 miles of distribution line • 1,160 water meters • 0.934 MGD capacity • 2 wells • 2 storage tanks • 2 pump stations • 213 fire hydrants 	<ul style="list-style-type: none"> • 82.65 miles of distribution line • 3,660 water meters • 2.134 MGD capacity • 8 wells • 3 storage tanks • 628 fire hydrants • 2 pump stations

The towns of Hamilton and Wenham are both located within the Ipswich River basin, a basin that is considered to be in distress by the Commonwealth. In recent years, the Commonwealth has been closely reviewing the amount of water used by Massachusetts communities and is beginning to implement new regulations designed to balance the needs of the environment with the needs of consumers. Within this context, the Town of Hamilton water is undertaking research to determine if it can access a water source outside the Ipswich River. Until Hamilton's investigation is complete, considering the merger of the town water departments is premature. Even if Hamilton is not able to identify an alternate source and a merger is considered in the future, careful attention should be paid to see how such a merger might affect the water withdrawal licenses each town now holds independently.

Recommended Action: None at this time.

ALTERNATIVE 6: COMBINE ALL PUBLIC WORKS-RELATED FUNCTIONS

The project team has analyzed the impacts of consolidating individual functions of the two towns and the HWRSD, and has shown that there are financial and operating benefits associated with each of these separate consolidations. This section of the report analyzes the impacts of consolidating all departmental operations.

Current Operations

The following table summarizes the staffing, budget, and the infrastructure related to the consolidation of all public works functions.

Category	Hamilton	Wenham	HWRSD	Total
Staff	<ul style="list-style-type: none"> • Public Works Director (0.6 FTE) • Administrative Assistant • Facilities Director (0.5 FTE) • Highway Foreman • EO (2) • Laborer/Driver (2) • Parks Foreman • Seasonal Intern (1) • Fleet Foreman • Cemetery Foreman 	<ul style="list-style-type: none"> • Public Works Director • Administrative Assistant (0.5 FTE) • Facilities Director (0.5 FTE) • Utility Man • Mechanic • Streets Foreman • Driver/Operator (2) • HEO (2) 	<ul style="list-style-type: none"> • Facilities Director • Head Custodian (5) • Custodian (7) • PT Custodian (1 FTE) 	<ul style="list-style-type: none"> • Public Works Director (1.6 FTE) • Administrative Assistant (1.5 FTE) • Facilities Director (2) • Utility Man • Head Custodian (5) • Custodian (7) • PT Custodian (1) • Highway Foreman • Parks Foreman • Streets Foreman • Fleet Foreman • Fleet Mechanic • Cemetery Foreman • Driver/Operator (2) • HEO (2) • EO (2)
FY 13 Budget	\$1,269,914	\$935,461	\$1,160,715	\$3,366,090
Facilities Infrastructure	68,758 sq. ft.	133,464 sq. ft.	370,040 sq. ft.	572,262 sq. ft.
Fleet	50 units	22 units plus small engines and attachments	NA	72 units plus small engines and attachments
Yards	Located behind Town Hall at 577 Bay Road. Building space is approx. 5,556 sq. ft. in size.	Located at 91 Grapevine Rd. Includes garage, office, barn and salt shed built circa 1980. Approx. 8,930 sq. ft. in size.	NA	
Fueling	Digital automated system	Gas Boy automated system		

Operational Impacts of Consolidation

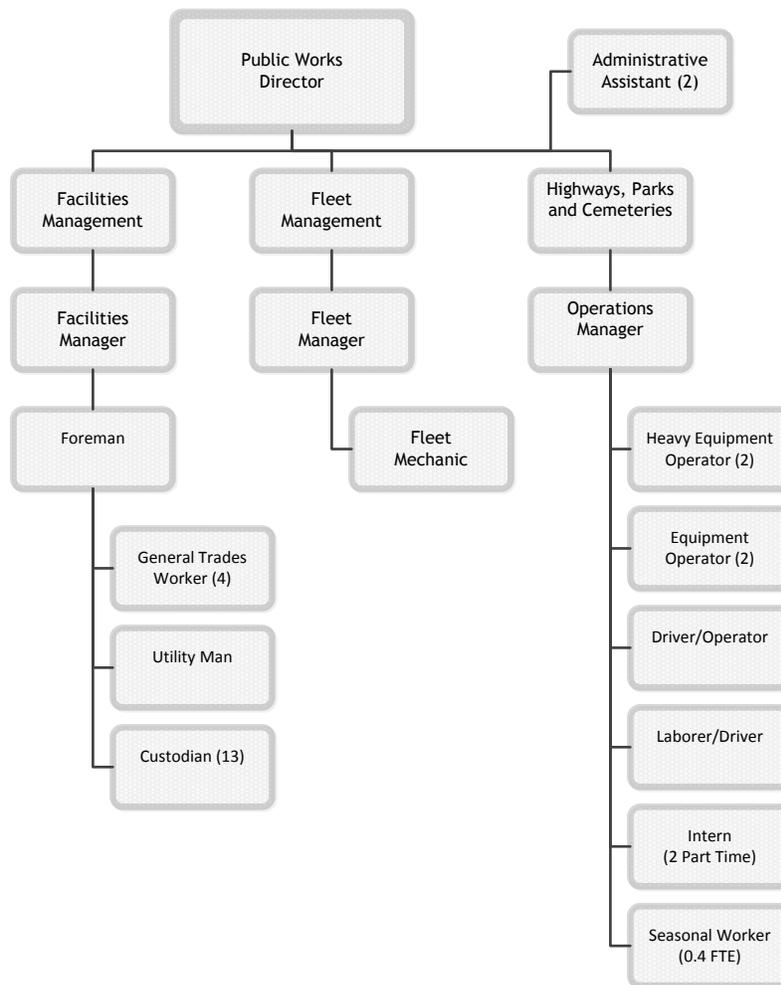
The two towns and the school district can effectively consolidate any one of the functions described in

this report through staff and cost-sharing arrangements, purchased services, or other means. However, full consolidation offers an even greater level of flexibility and has organizational implications, as well.

To this point, this report has assumed that the three entities would consolidate only one function at a time. It made the further assumption that there would be no cross-utilization of staff between non-consolidated functions, and that there would continue to be separate management and administrative structures in each of the entities. Under full consolidation, however, these assumptions can be discarded, and a fully-consolidated organization can be constructed.

Organizational Structure

The following chart depicts a fully-consolidated organization.



There are at least three notable features of the above organization chart. These include the following:

- There is a single Public Works Director. There are currently two Directors (1.6 FTEs) across the two towns. By consolidating the two organizations, all staff would come under the direction of a single command structure.

- The Department is staffed with two Administrative Assistants who would be responsible for the administrative and clerical functions in support of the Director and the 31 full time staff members of the Department.
- There is a new position of Director of Highways, Parks, and Cemeteries. This position would manage the staff and operations of the streets, parks, and cemeteries functions.

It should be noted that there is currently one administrative position in each of the two towns' Public Works Departments (see the Descriptive Profile, provided as Appendix A of this report), so the organizational chart above does not represent a change in current support staff.⁷ The appropriate administrative staffing levels depend greatly on a number of organizational characteristics, including, but not limited to:

- The number of staff being supported, and thus the volume of activity generated
- The degree of automation in the organization
- The volume and type of customer and contractor interaction

The primary driver of the need for administrative staff is the number of field personnel supported. Simply stated, the larger the number of field staff, the greater the volume of activity related to payroll processing, procurement, workload reporting, human resource needs, etc. There is no "correct" ratio of administrative support staff to technical and operational staff. These ratios are dependent upon such factors as geographical dispersion of staff supported, workload reporting requirements, public interaction, maturity of the maintenance and financial reporting systems, and others. However, in the experience of the project team, "typical" ratios of support staff to technical and operational staff vary from 1:9 to 1:25 or more for small- to medium-sized infrastructure maintenance organizations. The Hamilton Administrative Assistant position expends approximately one-half time in performing duties in the Water Division, so this effectively results in the consolidated Department having 1.5 FTEs. Therefore, 1.5 FTEs of administrative and clerical staff supporting 32 authorized positions in the Department would translate into a ratio of 1:23.3 and would place the consolidated Hamilton-Wenham Public Works Department outside of the typical range. Given that the consolidated Department has access to relatively little automation, the project team recommends the allocation of two full time Administrative Assistants. This would ensure a more reasonable ratio of 1 administrative/clerical position for every 16 operational staff position. Over time, as additional automation is put into place, the level of administrative staffing can be reevaluated.

One other notable feature of the consolidated organizational chart is that there are three supervisory positions corresponding to the three divisions under the Director. Currently, there is a shared Facilities Manager between the two Towns, and a Facilities Director of HWRSD. Similarly, there are four Foreman positions in the Highways, Parks, and Cemeteries Division⁸, and two Fleet Mechanics.⁹ The project team makes no recommendation regarding which of these employees is placed in the role of division manager; however, the Director will be required to evaluate the available personnel to make these

⁷ There is also an Administrative Assistant in Hamilton who primarily performs clerical and administrative services for the Water Division. However, as this function is not a candidate for consolidation, the position is not reflected in the organization chart above.

⁸ One of these positions is currently vacant.

⁹ The actual position titles are "Foreman" and "Mechanic" for these two positions, however both employees function as mechanics, as there are no personnel supervised under the direction of either position.

decisions for each division.

Under the combined alternative, staff would be transitioned to the organization responsible for managing the combined functions (See the Governance section below for a discussion on alternatives for the management entity).

Budget

The projection of the consolidated department’s budget is an imprecise exercise, although the project team has taken the combined budgets of the three separate organizational entities as a baseline and made adjustments based on known factors such as the addition and reductions of staff, as have been recommended in previous sections of this report. The table below provides the calculation of the pro forma budget:

BUDGET FOR CONSOLIDATED DEPARTMENT				
Category	Hamilton	Wenham	HWRSD	Total
Salaries	\$639,349	\$606,420	\$669,237	\$1,915,006
Expenses	\$630,565	\$295,341	\$491,478	\$1,417,384
Other		\$33,700		\$33,700
Total Current	\$1,269,914¹⁰	\$935,461¹¹	\$1,160,715	\$3,366,090
Less: 2 director positions				(\$140,000)
Plus: 3 Trades Workers and Foreman				\$241,450
Plus: 0.5 FTE Administrative Assistant				\$20,000
Total Projected Expenses				\$3,487,540
Projected Additional Costs				\$121,450

Although there is a projected net increase in costs, it must be noted that there are other factors that are not as easily quantified and that may have an even greater impact on the actual expenses and, as importantly, the efficient operation of the consolidated department. These include:

- Consolidated purchasing of fuel and maintenance supplies and materials may result in reduced costs;
- The installation of a CMMS will assist in identifying areas in which the consolidated department is expending unnecessary resources, and in identifying functions which may more efficiently be performed either by departmental employees or by contractors; and
- The central command of all town and School District maintenance resources will result in efficiencies not previously available by allowing the consolidated department to reduce overlap of activities, and to deploy staff in such a manner as to allow adequate crew sizes for the accomplishment of assigned work.

Recommendation: Consolidate fleet maintenance, facilities maintenance, grounds maintenance,

¹⁰ This figure excludes budgeted amounts for Waste, Recycling and Landfill, as these functions are not affected by the proposed consolidation.

¹¹ This figure excludes budgeted amounts for Refuse Collection and Disposal, as this function would not be affected by the proposed consolidation. Further, these budgeted amounts do not include figures for gas and oil.

parks and cemetery maintenance, and fueling systems and yards in order to provide the greatest degree of efficiency in the towns of Hamilton, Wenham, and the School District. Due to the severe underfunding for facilities maintenance, the preliminary pro forma budget calculation indicates a net cost increase of about \$121,450 annually; however, savings are likely to be realized in the longer term through consolidated purchasing and operational efficiencies.

ALTERNATIVE 6A: COMBINE ALL FUNCTIONS (PHASED IMPLEMENTATION)

In Alternative 6 above, the project team analyzed the merits of consolidating all public works functions of the two towns and the HWRSD, with the exception of the water departments. In recognition of the magnitude of that change and the fact that it may take some time to reach full consolidation, this section of the report considers the potential for a phased approach. In the proposed phased approach, all facilities-related functions would be consolidated within one of the two towns and the other public works functions would be consolidated within the other town. At a future date, those two departments could be consolidated into one.

Current Operations

See Alternative 6 for description of current operations.

Operational Impacts of Consolidation

Under the phased implementation approach, two public works departments would remain, but they would be structured very differently than today:

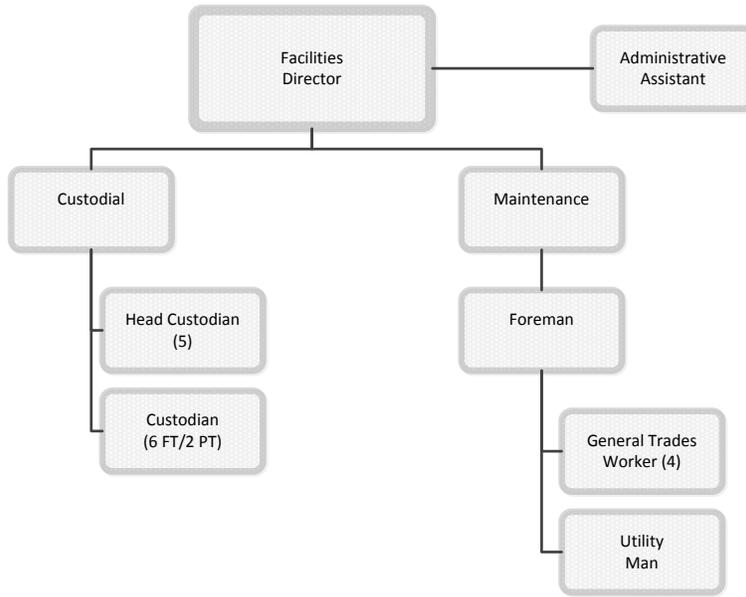
- The **Facilities Department** would consist of those functions and positions described in Alternative 1 above, in addition to one support position that would be added. A Facilities Director would serve as the manager of the department.
- The **Highways and Grounds Department** would consist of those functions and positions described in Alternatives 2-4 above. This department would require 1 FTE support position and would be managed by a Director of Public Works.

One of the departments would become part of and be managed by one of the two towns and the other department would part of the other town. Existing personnel would need to be transitioned from the School District, as well as from one town to the other, depending upon which town undertakes which series of responsibilities. Transitioning the staff between the organizations will ensure that there is a clear chain of command and that there would not be inconsistencies in the contract provisions that apply to a particular work team (See Chapter 4 for a review of existing bargaining agreements). This proposed approach would be similar to the existing arrangements between the two towns for the combined recreation and library departments (See Chapter 3 for a review of existing inter-municipal agreements).

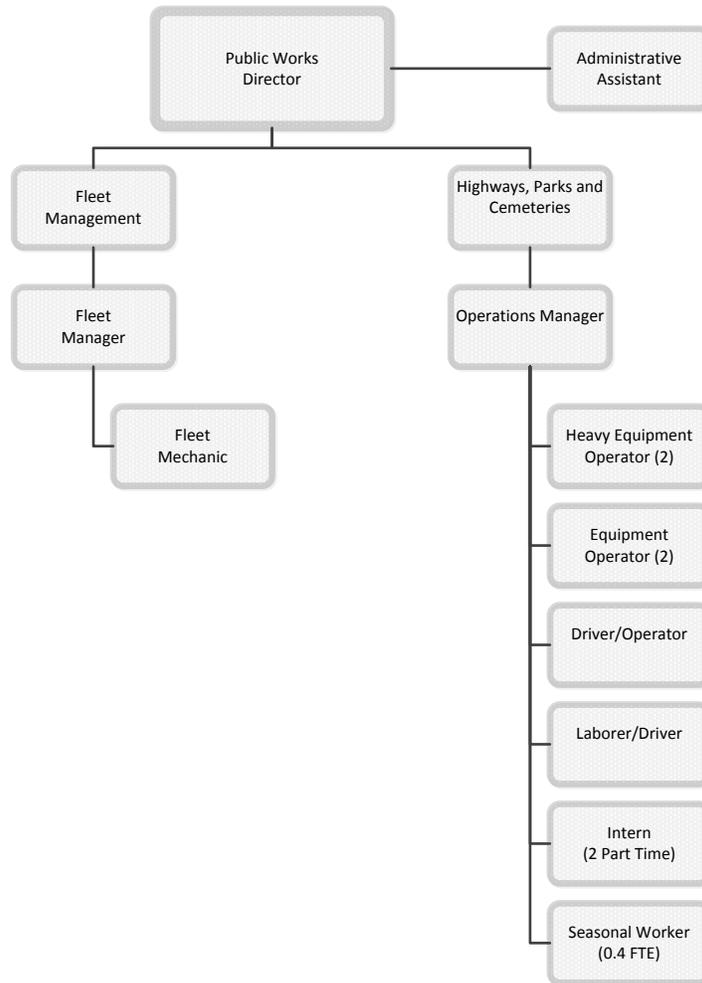
Organizational Structure

The following charts depict the two interim organizations.

FACILITIES DEPARTMENT



HIGHWAYS AND GROUNDS DEPARTMENT



The directors of the two departments would report directly to the Town Administrator or Town Manager of their respective town. The Superintendent would regularly meet with the Town Administrator/Manager to discuss school priorities and timelines.

Budget

The table below provides the calculation of the pro forma budget for two departments as an interim stage prior to full consolidation:

FACILITIES DEPARTMENT				
Category	Hamilton	Wenham	HWRSD	Total
Salaries	\$37,185	\$67,357	\$669,237	\$773,384
Expenses	\$180,896 ¹²	\$29,997	\$407,827	\$660,659
Other		\$33,000		\$33,000
Total Current	\$218,081	\$130,354	\$1,077,064	\$1,425,499
Less: 1 director position				(\$70,000)
Plus: 3 Trades Workers and 1 Foreman				\$241,450
Plus: 0.5 FTE Administrative Assistant				\$20,000
Total Projected Expenses				\$1,616,949
Projected Additional Cost				\$191,450

HIGHWAYS AND GROUNDS DEPARTMENT				
Category	Hamilton	Wenham	HWRSD	Total
Salaries	\$602,559	\$539,063		\$1,141,622
Expenses	\$407,730	\$265,344	\$83,651	\$756,725
Other		\$700		\$700
Total Current	\$1,010,289	\$805,107	\$83,651	\$1,899,047
Total Projected Expenses				\$1,829,047
Projected Additional Cost				\$0

The net additional cost will be \$191,450.

Recommendation: As an alternative to full consolidation at one time, the public works functions could be consolidated into two interim departments – “Facilities” and “Highways and Grounds” – each of which would be managed by one of the two towns. The pro forma budget calculation indicates a net cost increase of about \$191,450 across both departments annually. This would offer the benefits of consolidating like-functions, but it would not fully consolidate the management of the public works under a single entity. A full consolidation could occur at a future date.

¹² Includes utilities and fuel costs.

ALTERNATIVE 7: NO CHANGE

The towns and school district have had considerable success in recent years working together to implement capital improvements in the schools, engage in some ongoing building maintenance, and collaborate on grounds maintenance. As noted in the legal framework (see Appendix B), several inter-municipal agreements have guided these efforts to date. Certainly these more informal arrangements can continue into the future and will continue to produce benefits, but this will not address the long-standing issue of the under-resourcing of building maintenance as is proposed under Alternative 1 above. Further, the benefits of the other alternatives, such as cost savings due to shared procurement and reduced administrative overhead will not be realized.

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GOVERNANCE

Regardless of what functions are consolidated, the new combined organization will require management and oversight. This will include day-to-day management of the department in the form of a department director and broader policy direction and guidance of the type typically provided by a town manager/administrator and legislative board.

This section outlines several options for management and governance of the consolidated Department.

Department Management

Two ways to structure department management are found in the historic agreements between Hamilton and Wenham. These include:

- Department director/manager hired half-time by each town independently based upon the same job description (e.g., Facilities Management, Council on Aging); and,
- Department director supervised by an oversight board (e.g., Library, Recreation Program, Emergency Communications Center), but on the payroll of one town.

A third model exists elsewhere in Massachusetts in which the department director is supervised by an oversight board and is a paid employee of the board.

Divided Employment Model

The existing arrangement with the Facilities Manager, who works concurrently for Hamilton and Wenham, has worked well since the joint position was established. The incumbent has worked with the school district's facilities manager to successfully perform major capital improvements to the schools, and all have developed a positive and collaborative working arrangement. However, it should be noted that at present the towns' Facilities Manager only has one direct report, who is the Utility Man working for the Town of Wenham, and the new combined Department would be considerably larger, whether that Department included only the facilities maintenance functions or other public works functions.

Under the alternative that only combines the facilities functions, the staffing required for facilities maintenance would be approximately 10-11 FTEs, which includes partial credit for the time spent by custodial staff on maintenance functions, as well as contractual expenditures. If school custodial staff were fully incorporated into the new department, as would be expected, a total of 21 to 22 positions would be included in the department. This would include:

- Facilities Manager;
- Utility Man (1) (existing);
- Head Custodian (5) (existing);
- Custodian (7) (existing);

- PT Custodian (1) (existing);
- 2.5 FTE (resulting from conversion of contractual funds to salaries); and
- 3 FTE trades workers and one foreman (resulting from proposed budget increase).

In addition, under the divided employment model, it would be anticipated that the Facilities Manager would also need to be an employee of the HWRSD, which would further divide his payroll among three organizations.

If the consolidated Department consisted of functions beyond facilities maintenance, as is proposed, the size of the workforce to be managed would grow as well. The Facilities Manager would become a division director working for a Director of Public Works, and the structure under which to employ the Director would become the operative question.

In addition, if the position of Director of Public Works (or Facilities Manager) were established via the divided employment model, a question would arise regarding how the remainder of the workforce should be accommodated. For example, should the employees remain in their existing organizations or be moved to a consolidated organization, even if the management position(s) were not? If the employees remained within their existing organizations, then multiple bargaining agreements would continue to apply – agreements that have some differences that will affect the ongoing operations, such as different start times and different lengths of day.

Recommendation: The divided employment model is not recommended for the consolidated Department due to the large numbers of employees to be managed and the different bargaining agreements that would apply.

Unified Employment Model

Under the unified employment model, the Department Director and all staff will be employed by a single entity, whether this were one of the two towns or the HWRSD, or another entity to be created (to be discussed later in this report). They will be assigned tasks at the discretion of the Director or their supervisor, and can be deployed anywhere within the towns or at school district facilities. This model will provide for greater clarity of purpose for the workforce and all of the benefits of consolidation described in this report.

To implement a unified employment model, the agreement between the towns and the HWRSD will need to explain how the transition process will occur and what will happen with the employees' accruals for vacation, sick leave, retirement, etc., and a new bargaining agreement will need to be developed with AFSCME, or an existing one modified, depending upon the organizational location of the new Department. The inter-municipal agreement should also define what would happen with the personnel if the consolidated Department were disbanded or modified.

Recommendation: It is recommended that all of the employees of the consolidated Department be hired by a single entity so that they are subject to consistent policies, procedures, and benefit package, as opposed to having employees in multiple organizations as they are today.

Governing Board

If all of the employees are brought together in a consolidated Department, direction on performance expectations and priorities, approval of the operating and capital budget, etc. will still need to come from all three organizations. The project team has proposed that a three-member Governing Board, consisting of the Town Manager of Hamilton, the Town Administrator of Wenham, and the Superintendent of HWRSD be developed. In addition, it is recommended that an expanded Steering Committee, comprised of representatives of each of the boards of selectmen and the School Committee, would meet periodically to provide input and insight into Department priorities. One of these meetings should take place in the late fall of each year, or early winter, as the Department is developing its proposed annual operating budget and capital expenditure requests. The board members should help provide information on issues they hear from their constituencies so that this can be considered by Department leadership. Another meeting of the expanded Committee should be held after the close of each fiscal year to review expenditures for the prior year, review the future year budget, get updates on the school capital program, and reflect on summer time activities, such as parks and fields maintenance.

The Department should also prepare an annual schedule of activities and an annual action plan to be reviewed by the Governing Board (See Management Systems and Accountability, recommendation #7 for additional details). A computerized management maintenance system (described below) could assist with developing such a schedule, but even without a computerized system, the Department director should plan the routine activities that need to take place throughout the calendar year and then identify specific projects to undertake, whether funded through the capital improvement plan or implemented through the regular operating budget. This type of organized work plan is particularly important for an organization that serves three unique customers, in order to make sure that each customer's needs and expectations are being met. Although circumstances will change during the year and not everything in the action plan may be completed, without a plan, the potential exists for the Department to be moving from crisis to crisis, which could lead to an imbalance in the services provided to each town and the School District.

Recommendation: Establish a Governing Board consisting of the Town Manager of Hamilton, Town Administrator of Wenham, and the Superintendent of the HWRSD to manage the consolidated Department. The Governing Board should hold at least two meetings each year with expanded participation by a member of each of the boards of selectmen and the school committee. The Director of the consolidated Department should prepare and present an annual Action Plan to the Governing Board for its review and approval.

Management Entity

After considering the management and staffing structure, and the structure of the governing board, the remaining determination is where the new consolidated Department should be located organizationally, i.e., should it be part of either one of the two towns or the school district, or should it be a separate entity in and of itself.

To date, all of the inter-municipal agreements have been managed by one of the two towns. Hamilton has served as the lead on the emergency command center and the recreation program, while Wenham

has managed the library and the contract for the senior van service. In each of these agreements, the staff working on the programs have become employees of the town managing the agreement and they receive all support services from that town. The towns have also worked collaboratively on projects with the school district in which each has used its respective staff in public works and support departments to facilitate the efforts.

Each of the towns has strong management and support departments (i.e., human resources, finance, etc.) that could assist the consolidated Department in its efforts. Each also has experience in managing a collaborative effort. As such, the project team does not have any hesitancy regarding whether either of the towns could undertake the management of the consolidated Department.

Greater concern about the consolidated Department's organizational location arises from potential public perception of its operation. As the Steering Committee is aware, the public works consolidation project represents a much larger effort than seen before in the two towns, and one that affects the general public to a greater degree at their places of residence or business than either recreation programming or library services. Residents tend to be acutely aware of changes in response times for snow plowing and removal of trees and limbs from properties, etc. and have increasing expectations about the level of information they receive after they place a work request or make a complaint. As a result, public works departments are receiving greater volumes of constituent calls, and many are implementing electronic work order systems that allow them to send messages to those who have made complaints. That said, even with new technology, it is unlikely that any public works department can satisfy all of its customers all of the time. Therein lies the challenge for the new consolidated Department. Regardless of how well managed, funded, and operated the consolidated Department is, if it is managed by one of the two towns, potential exists for residents of the other town to perceive they are not getting the same level of service that the managing town does, even if this is not the case at all. Transparency around services performed, annual reports, and posting information on the Department website can help mitigate this potential, but it remains a concern.

One option is to create a new entity that is separate from both towns and the school district that would be tasked with performing the public works services for all three. A model exists for this in the regional dispatch center formed to serve Cohasset, Hingham, Hull, and Norwell. As a result of an act of the State Legislature, a new municipal entity was created called the South Shore Regional Emergency Command Center (SRECC). The SRECC operates the facility and is the employer of all those who work at the center. A governing board was established consisting of the town managers or town administrators of the participating towns. The board sets the priorities for the organization and establishes the annual budget to which each of the towns contributes based upon an established formula. The Town of Hingham provides administrative support to the SRECC and receives payment for the support it provides, but the SRECC is a separate and independent entity. If such an entity were created to consolidate public works functions, it would be accountable to the towns of Hamilton and Wenham and the HWRSD, who collectively would serve as the governing board, and would be accountable to the residents and the business community as well.

Recommendation: The towns of Hamilton and Wenham, and the HWRSD, should create a new and separate entity for the consolidated Department. This organizational move has not, to the project team's knowledge, been instituted in a public works operation in the Commonwealth. However there are precedents in emergency communications services which, in the case of the establishment of SRECC, required a special legislative act. Legislative action will be required in the proposed organizational consolidation as well.

To reduce the potential administrative burden, one of the two towns should provide administrative support (i.e., human resources, procurement, payroll, etc.) and be reimbursed for its efforts by the new entity.

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MANAGEMENT SYSTEMS AND ACCOUNTABILITY

Management accountability is the expectation that managers are responsible for the quality and timeliness of program performance, for increasing productivity, controlling costs, mitigating adverse aspects of agency operations, and assuring that programs are managed with integrity and in compliance with applicable laws.

This section evaluates the management accountability practices within the consolidated Department, as well as the management system infrastructure required to ensure that managers can monitor and report their status and progress against accepted measures of accountability. This includes goals, objectives, and performance reporting.

1. THE CONSOLIDATED PUBLIC WORKS DEPARTMENT SHOULD IMMEDIATELY BEGIN TO DOCUMENT AND REPORT THE WORK THAT ITS CREWS ACCOMPLISH.

The two separate Public Works Departments document little of the work they accomplish on a daily basis. The support staff in the offices take complaints from residents and hand the resulting work request to the appropriate foremen. However, not all completed work is handed back in to the administrative staff to be recorded as complete. As it is currently designed, the work request process functions simply as a repository of work that was requested and does not allow for an analysis of the productivity of staff or the efficiency with which the work was accomplished.

The managers and employees in both departments, like many public works departments, are not accustomed to reporting the work in any manner other than reporting the work they accomplish to their respective administrative staffs. However, most well-managed departments now place the responsibility on the field staff to report not only the locations and descriptions of work performed, but also the time, equipment, and materials expended in its accomplishment.

The project team recognizes that neither the Hamilton nor Wenham Public Works Departments possesses a computerized maintenance management system (CMMS), and this will be addressed in a later section of the report. However, the HWRSD possesses the School Dude management information system, and it is recommended that the consolidated department investigate the feasibility of utilizing this system to record its maintenance and repair activities for not only facilities, but for fleet, parks, cemeteries, and streets as well. Whether the department utilizes School Dude or some other CMMS, the project team recommends that the new Department immediately institute a work reporting system that includes the following elements of work activity:

- Date
- Location
- Name of Crew Member(s)
- Description of Work to be Performed (filled out by Foreman)
- Description of Work Performed (filled out by crew members)
- Equipment Used
- Quantities of Materials Used

- Hours Expended in Repair/Maintenance

There are other important elements of a work activity form, such as activity codes for the major elements of work, and a section in which supervisors and foremen project the time, equipment, and materials expected in the task. However, the project team believes that these should be instituted at later points in the process, as employees of the new Department should not attempt to incorporate more than the basics of work reporting at this time.

The work activity form should be signed by the foreman authorizing the work and should be transmitted to the administrative staff. In the period until a formal CMMS is installed, the administrative staff should enter this information into an electronic spreadsheet, such as Excel. This will allow at least the summation of hours by employee, and by type of repair (e.g., drainage, pothole repair, plumbing repair, etc.). The data collected in this electronic spreadsheet should be transferrable to an automated CMMS at a later date, but the process of collecting data should begin immediately.

Recommendation: Design a work activity form for use by all field employees. The form should be completed after each activity is performed by each crew member or crew leader and turned in to the administrative staff for input into an electronic spreadsheet or into the School Dude system used by HWRSD.

2. THE DEPARTMENT SHOULD DEVELOP AN INVENTORY OF WORK ACTIVITIES IT PERFORMS IN THE MAINTENANCE OF ITS INFRASTRUCTURE.

This should be viewed as a process of training supervisors and workers in the mechanics of recording work, and more importantly, in educating them in the importance of doing so. Ultimately, however, the Director and supervisors in the consolidated Public Works Department should define the work activities performed by their crews, including those that consume the majority of staff work hours and all forms of leave. In other words, all staff hours for each employee’s year of work should be included within the system. The work activities need to be carefully defined to assure that the same terminology is used for the work performed by staff, so that the same activity is recorded the same way, and in the same category, each time it is performed. Each of these work activities should define the unit of measure. Examples of work activities and units of measure are provided below.

Work Activity	Unit of Measure
Pothole patching	Tons of asphalt
Base repair	Square yards
Catch basin cleaning	Number of catch basins
Vehicle Maintenance	Preventive labor hours, unscheduled labor hours

The Department should ensure that the work activities used are comprehensive and meaningful in terms of their usefulness in management decision-making. The data should, at first, be recorded by crew members on paper, and transferred by administrative staff into the CMMS.

Recommendation: First, the Department should engage in a process of educating the work force as to the importance of the work activity data that should be reported on each task. Depending upon the staff response, this may be a multi-week process, as workers have been trained over a period of years to simply “get the work done” and go on to the next task. However, the Department should

immediately begin the development of a comprehensive set of work activities performed by each division in the new Public Works Department so that these may be used to populate the CMMS, described in the next section.

3. THE PUBLIC WORKS DEPARTMENT SHOULD INVEST IN A COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS).

The employees in the new Public Works Department have never had an automated work management system in which crew members were required to play major roles in formally reporting their work activities. Therefore, it is unrealistic to expect that any CMMS, simply by virtue of being purchased and installed, will immediately result in meaningful data coming from the system.

There are many benefits of a CMMS once employees are fully trained in both the mechanics of how and what to report, and the importance of doing so. The benefits include not just the obvious ones of tracking and justifying the dates, employees, locations, and descriptions of work performed, but they also can be used to define appropriate service levels that are achievable with a given number of labor hours, and at a defined level of productivity. The benefits of increased productivity are that the same work levels may be accomplished at less cost, or more work will be accomplished for the same cost, with work quality remaining constant.

The consolidated Public Works Department should utilize the maintenance management system to enable the identification of the services provided (e.g., line striping), the levels of service (e.g., lines are striped annually), the outputs of each of these services (e.g., the linear miles of striping), and the cost of those services in terms of the total cost and the cost per unit of output. One of the severe deficiencies of the two separate departments currently is that they lack sufficient data to detail the probable impact of any decreases in the staffing resources available to them. With a well-functioning CMMS been in place, it is possible to define the precise impacts on service levels of either increases or decreases in the staffing resources available to the new Department.

This maintenance management system should be a standard one, and one that is utilized within each division of the new Department that is responsible for maintaining infrastructure. The components of a successful maintenance management system include the following:

- The number and type of maintenance features (physical assets), and the condition of these features, should be documented. These are major factors in determining the types and amounts of work needed.
- Maintenance management is based upon work activities. Work activities should be defined for the significant maintenance work that is performed. Definitions should include an activity code, title, description, work unit, and inventory unit. Such complete descriptions of activities are referred to as Activity Guidelines and provide standards of performance for individuals and crews by setting forth the quality and quantity of results anticipated from each activity.
- An annual work program and budget should be prepared. The activity-based work program and budget represent the products of the planning process and summarize the kinds and amounts of work planned, the productivity of the work force, and the costs of the planned work. It also provides the basis for managing the annual work effort.
- An annual work calendar should be prepared showing the monthly distribution of planned maintenance activities. Labor, equipment, and material resource requirements needed to accomplish the planned workload should also be identified.

- Work scheduling procedures should be developed. The preparation of annual, seasonal, and short-term schedules, as well as daily plans, can provide guidance in achieving annual work program goals.
- Reports that will show work accomplishment and cost data, and a comparison of planned and actual work program accomplishment, should be prepared. These should comprise a primary piece of the monthly work report provided by the Department Director to the Council and to the Town Manager.
- Linking a database and geographic information systems (GIS) provides more options to analyze asset information.
 - A GIS can display asset symbols on a map with links to their corresponding database records. The GIS provides the ability to analyze data based on geographic information, allowing patterns to emerge on a map that may not be as obvious in rows and columns of data.
 - Asset information can be shared in a visual format that is often better understood by others, including the town councils and the public.
 - Finding an asset's location is faster and easier with the help of a map.

The steps that need to be accomplished in order to maximize the utility of a CMMS are described in the following sub-sections.

Recommendation: The new Department should invest in a computerized maintenance management system to develop an annual work program and scheduling plan. This CMMS should be the primary vehicle by which the Department reports on work activity and the productivity of the resources utilized in accomplishing work in accordance with the work plan. An added benefit of the system would be its compatibility with the host town's payroll system, which will, in the future, potentially allow for the direct entry of tasks and labor hours directly into the system in order to monitor and report the tasks in which the Department is expending its time.

4. THE PUBLIC WORKS DEPARTMENT SHOULD ESTABLISH AN ASSET MANAGEMENT PLAN.

The consolidated Public Works Department will be responsible for the maintenance and repair of an infrastructure in which the two towns have made a significant investment. And like most cities and towns across the Commonwealth and, in fact, the country, the Hamilton and Wenham Public Works Departments have seen operational and capital funding decline or stay level-funded over the past several years.

With few prospects that the levels of funding seen in prior years will increase markedly in the immediate future, the new Public Works Department is faced with decisions regarding the optimum manner in which it maintains the two towns' streets, sidewalks, plant and equipment, facilities, grounds, fleet, and other assets. Increases in fees for service are typically viable options, especially in instances in which fee levels have not been adjusted for some time, or are substantially lower than in other comparable municipalities. However, in the current environment, even this may be difficult.

Therefore, the options for the new Public Works Department are to either decrease services and service levels, or to enhance the efficiency and effectiveness of current operations. There are options for both, however the Department should consider the enhancement of the efficiency and effectiveness of existing operations, including the improvement of activity reporting and data accumulation, and the establishment of an asset management plan and performance measures that will define and report the

progress, and improvement, of crews against definable objectives.

Asset management focuses on the facts about the towns' infrastructure assets, their performance, their preservation, and their anticipated longevity. Effective asset management is important for at least two reasons, including:

- The towns' aging infrastructure, and associated risks and liabilities; and
- Insufficient funding for asset renewal and rehabilitation, as described above, requires that available funds be invested in projects with the maximum benefit.

Effective asset management relies upon accurate asset information to facilitate decision-making regarding the condition and performance of those assets with a long-term view of their preservation and renewal.

Given the significant replacement cost of these assets, it is imperative that the new Public Works Department maximize the useful life of the assets for which it has responsibility. The actions that should be taken by the Department are presented below.

- Develop a long-term rehabilitation and replacement plan for the street system. Again, the project team does not possess data indicating the exact number of linear miles replaced in the recent past, but visual observation of streets indicates that many streets have not been replaced or rehabilitated in many years. Further, the two towns do not utilize a formal and systematic methodology for assessing the pavement condition of all street segments on a routine basis.
- Commit to a five-year replacement plan to address replacement requirements of the towns' vehicles and equipment.

The new Department needs to address these challenges in the rehabilitation and replacement of the towns' assets. In many cases, public works departments are able to allocate staff more efficiently in order to document asset locations and conditions, and load these into a geographical information system (GIS) which should incorporate the answers to the following questions:

- What do we have and where is it? (Inventory)
- What is it worth? (Costs/replacement rates)
- What is its condition and expected remaining service life? (Condition and capability analysis)
- What is the level of service expectation, and what needs to be done? (Capital and operating plans)
- When do we need to do it? (Capital and operating plans)
- How much will it cost and what is the acceptable level of risk(s)? (Short- and long-term financial plan)
- How do we ensure long-term affordability? (Short- and long-term financial plan)

Before beginning the initial asset inventory, the DPW, perhaps with outside consulting assistance in the near term, should install and familiarize all personnel who will be involved in data entry with the software and hardware tools, the required data, and data collection and entry procedures. Training could be provided to all team members. Since the initial inventory will involve manual data collection, the Department could develop electronic forms to gather the information in the field.

Further, the new DPW should conduct a pilot program to ensure the asset inventory data collection meets needs and expectations. The assets selected for the pilot program should be limited in size. Once pilot program data are in the system, both the data and the process could be reviewed and quality controlled. Based upon the findings of the pilot project, the Department could revisit the timeframe for collecting the asset inventory data.

Recommendation: Commit to the development of an asset inventory. This inventory should define the asset, its value, its location, its maintenance frequency, its maintenance services, and the individual or division that is responsible and accountable for its maintenance and repair.

5. DEFINE THE LEVELS OF SERVICE TO BE PROVIDED.

It is common in Public Works operations to assume that the unpredictability of work and work locations makes annual planning infeasible or, at best, a widely varying target. While the basic “unpredictability” assumption is true, it does not negate the value of planning efforts related to historically-probable events. The project team has noted the fact that activities *are* being accomplished in the field and are generally being accomplished in a low-cost manner. However, there are at least two concerns regarding the accomplished work that the project team noted during the conduct of the study. These include the following:

- With relatively few exceptions, the activities performed the DPW appear to be performed almost solely in reaction to requests for services, largely with no orientation toward proactive maintenance of the infrastructure.
- The management of the separate departments have not actively sought information that would enable them to anticipate workloads, location, and timing of services, and staffing needs for the various crews under their supervision.

Although each of the above issues present separate problems, they are related insofar as the lack of historical workload measurement data prevents the establishment of meaningful targeted service levels for a consolidated Department. In order to define what impacts resource additions or reductions will have upon work output and service levels, it is imperative that the new Department possess the data that will facilitate the analysis.

Levels of service should vary depending on the type of infrastructure and intensity of use. For the purposes of maintenance management, service levels must be specific. Examples of specific service-level standards in parks maintenance might include the following:

- Turf area to be mowed weekly during dry season – grass height 2".
- Fertilization of the turf area should be completed with a balanced fertilizer such as 16-6-8 annually once during the summer.
- Turf aeration should be completed during the spring while the grounds are still soft from winter moisture.
- Swings and play equipment should be inspected on a weekly basis and serviced if required.

Some judgment will be needed in applying the standards, but they should provide specific and useful guidelines in terms of what maintenance should be performed and what maintenance can be deferred. These standards are useful in determining the amount of work needed to attain desired levels of service.

In some cases, these standards will also need to be expressed quantitatively as well.

Recommendation: The DPW Director, in conjunction with the governing body of the new Department, should define the service levels that are appropriate to be accomplished.

6. THE DEPARTMENT SHOULD DEVELOP PERFORMANCE STANDARDS.

The next step in deploying a maintenance management system is to define the work to be done. The work must be identified in terms that are measurable and that can be related to resource requirements on a consistent basis. The work activities should be identified by name (such as pothole patching). These specific work activities should account for most of the annual workload – typically 85% to 90%. The remaining 10% to 15% of the workload is usually comprised of relatively minor activities that can be grouped as “miscellaneous.” Examples will depend on the specific work types of the Department, but may include seldom-performed activities such as fence installation or repair, transporting items between buildings, etc.

A standard should be developed to define a level of service for a specific activity. That is, the standard is used to define the amount of work that needs to be done to provide the desired level of service. These are established largely on the basis of experience; however, best practices in the industry can be utilized as guides as well. Once established, a value can be used as a standard and may be adjusted upward or downward to raise or lower the level of service for, for example, pothole patching.

These standards are used to define the best way to accomplish each activity. The optimum crew size and equipment complements are specified, along with the major materials needed and the preferred procedure for doing the work. Also, the expected amount of work to be accomplished each day is specified, based on using the standard over a period of time under average conditions. With a total of about 12 authorized employees, the consolidated Public Works Department is relatively small, and it is more the rule than the exception that the work of a specific crew is interrupted to respond to either an emergency or to an activity with a higher importance. Therefore, it may be more meaningful for the Department to express expected work outputs not on a daily basis, but on a half-day, or even hourly, basis. Whatever output basis is selected, each standard should include at least six components:

- A brief description of the specific work involved – the work that is to be performed by the crew;
- The frequency with which the work should be performed (or the level of service) and the criteria for scheduling the work;
- The crew size required for the job;
- The equipment, material, and tools needed;
- The performance expectations for each job or average daily productivity; and
- The recommended procedures for completing the job.

A sample performance standard for crack sealing is presented in the exhibit on the following page.

Recommendation: Once all activities have been defined, performance standards should be defined, which outline, for each major activity, the methods of accomplishment, crew sizes, levels of service, the probable materials needed, and the expected average daily production levels to be achieved. A sample of such a performance standard has been provided.

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Example of a Performance Standard

EXHIBIT

SAMPLE PERFORMANCE STANDARD FOR THE HIGHWAY DIVISION

Activity No.: S-001	Activity Name: Crack Sealing
Description and Purpose: Cleaning, filling and sealing cracks in paved surfaces to prevent the passage of water into the base or sub-base of the road. Not designed for use on areas of alligator cracking or where surface shows signs of base failure.	
Schedule Perform work to prevent water from penetrating and damaging the roadway surface. Sand seal after application.	
Authorized by: Assistant Director	Level of Service: Ensure smooth transportation over paved roads. . Performed on cracks greater than 1/4" wide. Perform when temperature is above 50 F and dry.
Crew Sizes: 2 MEO 1 Laborer Equipment: 1 Grader 1 Pickup 3 Dump Truck 1 Street Roller 1 Water Truck 1 Loader	Work Method: 1. Place safety signs and devices 2. Clean cracks as necessary 3. Fill cracks with seal material 4. Cover crack filler lightly with sand 5. Remove safety signs and devices
Material: 100 gallons liquid crack filler Sand	Average Daily Production 100-200 gallons of crack filler per day

Note that the sample form has an activity number in the upper left corner. The project team referred to this concept in an earlier section of the report in discussing the elements of a manual work activity sheet that is completed by each crew or crew member. This activity number (S-001, in this example) should be filled in by employees in accordance with an established set of activity codes that define the full list of activities in which the Department typically engages. The use of an activity number, or code, facilitates the analysis of work productivity and efficiency by enabling the Department to sort all work hours expended against a numeric value rather than a text string, such as “culvert cleaning”, “pothole patching”, “lane striping”, etc. Numeric values are shorter and encompass an agreed-upon set of activities, whereas text strings are longer and may be reported in different ways by different employees. For example, “culvert cleaning” may be reported variously as “cleaned culverts”, “culverts cleaned”, or many other variations.

7. THE DEPARTMENT SHOULD DEVELOP A FORMAL WORK PLANNING AND SCHEDULING SYSTEM.

The real work of management on a daily level begins at this point in the process. The previous elements of management systems described above deal with establishment of systems and accountability; once implemented, the Director should be able to safely rely on foremen and support staff to implement them.

This task involves the development of a formal work scheduling system, the objective of which is to ensure that the planned amount of work is done. This element of the process requires that the Department Director analyze the work, establish the service levels that can and should be met, anticipate probable interruptions to the smooth flow of work, and work with foremen or crew leaders in scheduling the work to be performed. In other words, the successful implementation of a well-functioning management and planning system relies on the Director, with cooperation and input from subordinates, to proactively plan and manage the work, rather than simply reacting to the work requests that are in the day's in-box.

After the annual work program is approved by the Director, foremen or crew leaders must have a simple method of authorizing and scheduling work to ensure that the work program is carried out as planned. Usually, monthly schedules are prepared, using the annual work calendar as a guide. To the extent possible, the planned work should be carried out and every effort should be made to stay on schedule.

If activities such as storm damage repairs and cleanup, snow removal, etc., are greater than planned, the work program will have to be adjusted or additional funds will be requested to complete the planned work. This, though, is one of the values of the CMMS, as it will allow the Director to quantify the impact of these interruptions within specified boundaries of probability.

A sample annual work program for the new Department is presented in the exhibit on the following page.

Each division of the new Department should begin the accumulation of the major work activities performed and should begin to categorize these to facilitate analysis. The project team has provided a sample of these work activities for a street maintenance division on the next page. This sample is not intended to be a full listing of the activities performed by any existing division of either of the two towns' Public Works Departments, but rather is provided in order to facilitate the process of determining the types of activities each division should be developing, and at what level of detail.

Recommendation: The consolidated Department of Public Works should develop a formal work planning and scheduling system. This formal work system should be standard across each division of the Department.

Exhibit

Sample Annual Work Program for the Highway Division

Work Activity	Labor Days		Amount of Work		Total Cost		Productivity	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
Gravel Replacement	55	61	8,250 cubic yards	9,113 cubic yards	\$1,230,000	\$1,333,440	150 cubic yards per day	149.3 cubic yards per day
Culvert Cleaning	62	55	1,240 culverts	1,266 culverts	\$18,848	\$16,720	20 culverts per day	23 culverts per day

This exhibit is only an example and is not based on actual data from the Town.

Exhibit

LIST OF MAINTENANCE ACTIVITIES FOR HIGHWAY DIVISION

Work Inventory

4002.100 Street Maintenance

Code	Activity Description	Unit of Work	Unit of Inventory
.111	Gravel replacement	Cubic Yards	Road mile
.112	Pothole repair	Tons	Paved road mile
.113	Crack sealing	Hours	Paved road mile
.114	Blade patching	Tons	Paved road mile
.115	Seal coating	Tons	Paved road mile
.116	Shoulder maintenance	Shoulder miles	Shoulder mile
.117	Shoulder repair	Cubic Yards	Shoulder mile

4002.200 Drainage

Code	Activity Description	Unit of Work	Unit of Inventory
.211	Ditching with grader	Ditch mile	Ditch mile
.212	Ditching with ditcher	Ditch foot	Ditch mile
.213	Culvert cleaning	Culverts	Culverts
.214	Culvert repair/replace	Linear feet	Culverts

4002.300 Structures

Code	Activity Description	Unit of Work	Unit of Inventory
.311	Bridge maintenance	Hours	Bridges
.312	Bridge repair	Hours	Bridges

4002.400 Traffic

Code	Activity Description	Unit of Work	Unit of Inventory
.411	Sidewalk maintenance	Hours	Sidewalk segments
.412	Special purpose paths	Hours	Paths
.413	Sign maintenance	Signs	Signs
.414	Guardrail maint/repair	Linear feet	Road miles
.415	Snow/ice control	Hours	Road miles

8. A MONTHLY PERFORMANCE REPORT SHOULD BE GENERATED COMPARING PLANNED VERSUS ACTUAL PERFORMANCE AND COSTS.

This next step of the planning and work programming initiative involves the development of a work reporting system. The Director and foremen and crew leaders should promptly review these work reports to ensure that they were completed properly, to determine if the performance standards were substantially followed, and to make a determination as to the reasonableness of the units of measure accomplished during the day. Significant variations should be followed up to determine the cause and, if necessary, take corrective action.

A system should be developed to summarize the daily work reports on a monthly basis to produce performance measurement reports. The Director should be required to provide a monthly status report to the governing body of the consolidated department, which should be more than a simple statement of the work that was accomplished. Rather, it should reflect not only this, but also the efficiency and effectiveness of the resources utilized, and the degree to which the actual performance met the objectives stated in the monthly plan. For example, the performance measurement data generated by this report could include:

- A comparison of planned versus actual staff hours per work activity for the previous month and year-to-date for each work activity;
- A comparison of actual versus planned work output (e.g., numbers of vehicles scheduled for preventive maintenance vs. the number entering the garage for PM within 48 hours of schedule) per month and year-to-date for each work activity;
- A unit cost analysis that compares the planned versus actual unit costs for each work activity per month and year-to-date; and
- A comparison of actual productivity (work output per staff hour) versus the expected productivity as stated in the performance standards.

Recommendation: The new Public Works Department should generate a monthly performance report comparing planned versus actual performance and costs. The intent of the monthly performance report is to report actual accomplishments against the annual work plan. This report should provide the basis for the Director's monthly performance reports to the Governing Board.

CONCLUSION AND RECOMMENDATION

The towns of Hamilton and Wenham and the Hamilton-Wenham Regional School District have a long history of collaboration in the areas of recreation, library services, emergency dispatch, etc. that is recognized around the Commonwealth. This, plus their joint efforts in recent years to implement much needed capital improvements in the schools and to maintain parks and grounds, lays the foundation for entering into a more formal consolidation of public works functions.

The greatest single challenge to consolidation is the lack of resources dedicated to ongoing facilities maintenance. As identified above, a significant gap exists between the number of personnel needed to maintain the facilities owned by all three entities and the staffing available today. As a result, no preventive maintenance is performed on the facilities despite the fact that studies have shown that the investment of time and financial resources into preventive maintenance returns \$2 in savings for every \$1 invested.¹³ Preventive maintenance has additional benefits such as:

- Better conservation of assets and increased life expectancy of assets, thereby eliminating premature replacement of machinery and equipment.
- Reduced overtime costs and more economical use of maintenance workers due to working on a scheduled basis instead of a crisis basis to repair breakdowns.
- Timely, routine repairs circumvent fewer large-scale repairs.
- Reduced cost of repairs by reducing secondary failures. When parts fail in service, they usually damage other parts.
- Identification of equipment with excessive maintenance costs, indicating the need for corrective maintenance, operator training, or replacement of obsolete equipment.
- Improved safety and quality conditions.

The project team has estimated the cost of the four additional needed FTEs at \$241,450. This is an investment that is needed even if consolidation of public works functions does not take place. However, through consolidation, some cost savings will occur to offset a portion needed facilities investment. By consolidating into either one department (Alternative 6) or two interim departments (Alternative 6a), management and administrative positions can be restructured to produce an annual savings of \$120,000 in Alternative 6 and \$50,000 in Alternative 6a. As a result, when taken together, the consolidation of public works functions will allow the towns and school district to implement a facilities maintenance program with the additional investment of \$121,450 to \$191,450, depending on the alternative selected. This figure does not take into consideration other savings that will occur over time as other operating improvements, such as consolidated procurement, implementation of a work order system, and establishment of an annual operating plan take place, are made. Additional benefits will also be realized as DPW yards are combined, freeing up space to be used for other purposes.

Recommendation: Create a combined DPW serving the towns of Hamilton and Wenham and the Hamilton-Wenham school district as a stand-alone entity that receives central administrative support

¹³ "From Preventive to Proactive", Public Works Magazine, November, 2007.

(e.g., HR, procurement, finance) from one of the two towns. In a phased approach, the first step could be the creation of consolidated Facilities Department to be managed and overseen by one of the towns and a consolidated Highways and Grounds Department to be managed and overseen by the other town. Over time, as all three organizations gain experience in consolidated DPW operations, these two departments should be further consolidated into a new municipal entity that would manage all of the public works functions.

APPENDIX A

SAMPLE SYSTEMS AND COMPONENTS LISTING

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SAMPLE SYSTEMS AND COMPONENTS LISTING

<p>Foundation and Substructure</p> <ul style="list-style-type: none"> - Footings - Foundation walls - Slab/beams on grade - Piling/Posts - thermopiles - Reinforcing - Connectors - Waterproofing - Insulation - Underdrains 	<p>Superstructure</p> <ul style="list-style-type: none"> - Columns - Beams - Rigid frames - Floor structure joists - deck/slab/sheathing - ramps - Roof structure trusses - deck/slab/sheathing - Monolithic bearing walls - Stairs and railings - Structural bracing - Welds/connectors 	<p>Exterior Wall Systems</p> <ul style="list-style-type: none"> - Wall construction - Cladding/sheathing - Doors <ul style="list-style-type: none"> frame door unit hardware - Glazing systems <ul style="list-style-type: none"> o frame o glazing o hardware o curtain walls o storefronts - Balcony walls/railings - Louvers and screens - Expansion/seismic joints - Insulation - Protective coating - Sealants
<p>Roof Systems</p> <ul style="list-style-type: none"> - Roofing - Insulation - Paving and ballast - Curbs/supports - Expansion/seismic joints - Drains, gutters and d.s. - Drywells - Flashing and trim - Fasteners - Snow stops - Roof openings 	<p>Interior Construction</p> <ul style="list-style-type: none"> - Fixed partitions - Demountable partitions - Retractable partitions - Doors <ul style="list-style-type: none"> o frame o door unit o hardware - Glazing systems <ul style="list-style-type: none"> o frame o glazing o storefronts/entrances - Interior finishes <ul style="list-style-type: none"> o carpet o resilient tile/sheet o ceramic/clay tile o terrazzo o paint o vinyl/fabric wall cover o wood o metal panels - Ceiling system <ul style="list-style-type: none"> o suspension grid o acoustical units o soffits (metal/gyp.) 	<p>Specialties</p> <ul style="list-style-type: none"> - Toilet partitions - Display boards - Projection screens - Display cases - Lockers - Flag poles
<p>Heating Systems</p> <ul style="list-style-type: none"> - Boilers - Furnaces - Burners - Fuel tanks & distribution 	<p>Air Handling Systems</p> <ul style="list-style-type: none"> - Air handling units - Unit ventilators - Fans - Inlets/outlets 	<p>Cooling Systems</p> <ul style="list-style-type: none"> - Condensing units - Compressors - Heat exchangers - Packaged A/C units

<ul style="list-style-type: none"> - Heat transfer equipment - heat exchangers - coils - Terminal/package units - Fin tubes/radiators - Heating accessories - dampers/draft control - breeching and ductwork - stacks - insulation - piping - valves 	<ul style="list-style-type: none"> - Ducting systems - dampers - filters - mixing boxes - sound attenuators - Humidifiers - Dust collection systems 	<ul style="list-style-type: none"> - Chillers - Absorption units
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Chapter 2

Descriptive Profile of Infrastructure Maintenance Operations

Prepared for the

Towns of Wenham and Hamilton, Massachusetts
And the Hamilton-Wenham Regional School District

February 2014

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DESCRIPTIVE PROFILE OF INFRASTRUCTURE MAINTENANCE FUNCTIONS

The following pages provide a descriptive profile of the Towns of Wenham and Hamilton and the Hamilton-Wenham Regional School District's (HWRSD) infrastructure maintenance functions. The purpose of this descriptive profile is to document the project team's understanding of the towns' and the Schools' organizations, allocation of staff by unit and function and principal assigned responsibilities of staff. Data contained in the profile were developed based on the work conducted by the project team over the past month, including:

- Interviews with management and staff in the Department.
- Physical tours and observations of all towns and Schools facilities.
- Collection of various data describing organization and staffing, workload and service levels as well as costs.
- Documentation of key practices as that relates to work planning and scheduling, policies and procedures, as well as work processes.

In this document, the structure of each study participant's descriptive profile is as follows:

- Organizational charts showing all staff positions by function and reporting relationships.
- Summary descriptions of key roles and responsibilities of staff. It should be clearly noted that responsibility descriptions are not intended to be at the "job description" level of detail. Rather, the descriptions are intended to provide the basic nature of each assigned position.
- Presentation of Departmental budgets.
- Summaries of key indices of workloads and service levels provided by each division.

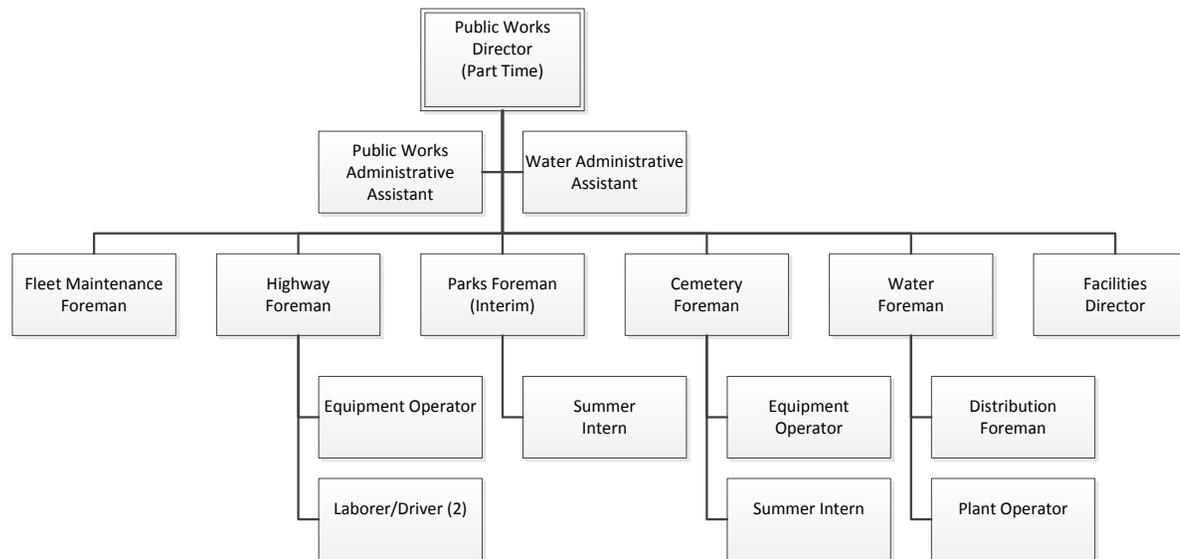
These data should be reviewed for accuracy and completeness by staff in each participant's organization. Comments and corrections generated from these reviews will be incorporated into the final version of this document. Information contained in the descriptive profile will be employed in the analysis of issues during subsequent stages of the project.

HAMILTON PUBLIC WORKS

The Hamilton Public Works Department is responsible for street and sidewalk maintenance and repair; snow and ice removal; parks, trees and cemetery maintenance; water distribution and maintenance; solid waste and recycling. In addition, Hamilton partners with the Town of Wenham in providing building maintenance, and shares a Facilities Director with that Town.

Organization

The following organization chart provides an overall depiction of the reporting relationships of the divisions of Public Works. Note that the chart depicts the organization as it was described to the project team, and is not offered as an official organizational structure.



Staffing and Responsibilities

The following table provides a summary of Hamilton’s Public Works Department staffing and key elements of responsibilities.

Division	Staffing by Classification		Key Elements of Staffing and Scheduling
Public Works Administration	Public Works Director (Interim)	0.6	<ul style="list-style-type: none"> • Provides the overall executive management and administration of divisions and staff within the DPW. • Responsible for developing the overall priorities of the DPW, including the development of policies and procedures, performance goals and objectives, monitoring of budget, etc. • Prepares the operating budget and confers with Town Manager on formulating the capital improvement program, and meets with division managers on a regular basis to discuss operations, issues, performance, etc. • Ensures that department operations conform with local, state, and federal government regulations, and other applicable rules and policies. • Meets with the public to discern needs, answer questions, receive comments and complaints, and to direct DPW resources to abate these concerns and complaints. • The Interim Director works 8 hours Mon. and Tue, 4 hours on Thurs. morning and 4 hours Fri. afternoon. Total of approximately 24 hours per week.
	Public Works Administrative Assistant	1	<ul style="list-style-type: none"> • Sells Cemetery lots • Maintains the Cemetery database of owners, deceased, lot number and section • Assists in development of budget for non-Water divisions of the DPW • Reconciles hours worked between Water and non-Water division of the DPW • Handles accounts payable and receivable for non-Water divisions of the DPW • Receives complaints from residents, tracks in electronic spreadsheet and provides foremen with paper copies of work requested • Develops bid specifications and handles bid processes • Coordinates with FEMA on disasters • Updates departmental web site • Monitors and reports cell phone usage for the Town • Receives and forwards internal building maintenance requests • Processes departmental time sheets
	Water Administrative Assistant		<ul style="list-style-type: none"> • Assembles water usage data and transmits to vendor for water bills • Processes liens • Handles accounts payable and receivable for Water division • Does Water Division payroll • Reconciles with the Treasurer/Collector monthly • Does capital project bill processing • Assists in budget preparation for Water, and oversees Water division budget and expenditures

Division	Staffing by Classification		Key Elements of Staffing and Scheduling
Highway	Foreman	1	<ul style="list-style-type: none"> • Assigns work to staff in the Highway Division, ensuring the quality and quantity of work performed • Serves as a working member of a Highway crew. • Performs road maintenance, including pothole patching, utility cut repair, curb maintenance, grading of gravel roads, etc. • Stripes center lines, legends, crosswalks, school crossings • Cleans culverts • Replaces road signs • Patches trenches • Removes snow and ice
	Equipment Operator	1	<ul style="list-style-type: none"> • Performs road maintenance, including pothole patching, utility cut repair, curb maintenance, grading of gravel roads, etc. • Stripes center lines, legends, crosswalks, school crossings • Cleans culverts • Replaces road signs • Patches trenches • Removes snow and ice • Operates the heavier machinery when paired with Laborer/Drivers in a crew
	Laborer/Driver	2	<ul style="list-style-type: none"> • Stripes center lines, legends, crosswalks, school crossings • Cleans culverts • Replaces road signs • Patches trenches • Removes snow and ice • Generally uses hand tools when paired with Equipment Operator or Foreman
Parks, Fields and Grounds	Foreman	1	<ul style="list-style-type: none"> • Assigns work to staff in the Division, ensuring the quality and quantity of work performed • Prepares Patton Park for Memorial Day, including pool preparation • Maintains Patton Park, soccer field at Library, School Street Park, Cutler Park • Activities include mowing, aerating, weed trimming, landscaping/mulching, fertilizing, and application of limited insecticide • Position is currently vacant. Water Foreman is temporarily fulfilling the duties of this position until a replacement is hired.
	Seasonal Intern	.5	<ul style="list-style-type: none"> • Works during the growing season, which roughly corresponds to April through October each year.

Division	Staffing by Classification		Key Elements of Staffing and Scheduling
			<ul style="list-style-type: none"> At the direction of the Foreman, mows, aerates, mulches/landscapes, trims weeds in assigned parks
Fleet Maintenance	Foreman	1	<ul style="list-style-type: none"> Maintains and repairs all Town vehicles and equipment other than fire apparatus, such as pumpers and ladders Obtains necessary automotive parts for use in repairs Diagnoses vehicular problems and determines needed repairs Oversees the receipt and disbursement of fuel
Cemetery	Foreman	1	<ul style="list-style-type: none"> Assigns work to staff in the Division, ensuring the quality and quantity of work performed Serves as active working member of a crew in the Cemetery, digging graves, mowing, trimming weeds, replacing headstones, etc.
	Equipment Operator	1	<ul style="list-style-type: none"> Operates motorized equipment and hand tools in digging graves, mowing, trimming weeds, replacing headstones, etc.
	Seasonal Intern	.5	<ul style="list-style-type: none"> Primarily uses hand tools in performing grounds maintenance at the Cemetery, digging graves, mowing, trimming weeds, replacing headstones, etc.
Water	Foreman	1	<ul style="list-style-type: none"> Oversees plant operations, meter reading, distribution Makes assignments of tasks to division staff members Obtains samples and performs tests at various locations in the plant and distribution system Uses equipment to dig services Repairs and maintains plant equipment, including pumps, chemical lines, etc. Regular working hours are 7:00 am till 3:30 pm, M-F, however the three crew members rotate Sat and Sun hours in staffing the treatment plant for four hours each weekend day
	Distribution Foreman	1	<ul style="list-style-type: none"> Obtains samples and performs tests at various locations in the plant and distribution system Uses equipment to dig services Repairs and maintains plant equipment, including pumps, chemical lines, etc. Reads meters on a quarterly basis Turns gate valves Repairs leaks and breaks in distribution line Regular working hours are 7:00 am till 3:30 pm, M-F, however the three crew members rotate Sat and Sun hours in staffing the treatment plant for four hours each weekend day

Division	Staffing by Classification		Key Elements of Staffing and Scheduling
	Classification	Count	
	Operator	1	<ul style="list-style-type: none"> Obtains samples and performs tests at various locations in the plant and distribution system Assists in digging services Repairs and maintains plant equipment, including pumps, chemical lines, etc. Regular working hours are 7:00 am till 3:30 pm, M-F, however the three crew members rotate Sat and Sun hours in staffing the treatment plant for four hours each weekend day
Facilities Maintenance	Facilities Director	.5	<ul style="list-style-type: none"> Performs plumbing/HVAC, some electrical and other maintenance and repairs on facilities in Hamilton (excluding the Schools). Obtains contractors for repair and oversees work of the contractors This employee is shared with the Town of Wenham, with each Town paying 50% of the employee's salary

Financial

The following table provides the expenditures for FY12, and budgets for FY13 and FY14 for the Department of Public Works.

Division	FY12 Actual	FY13 Budget	FY14 Budget
Water Enterprise			
Operating	\$204,010	\$220,000	\$250,000
Facilities Management			
Salaries and Wages	\$35,322	\$36,790	\$37,019
Expenses	\$166,344	\$222,835	\$164,353
Subtotal Facilities Mgt.	\$201,666	\$259,625	\$201,372
Public Works Administration			
Salaries and Wages	\$192,605	\$196,710	\$201,191
Expenses	\$86,279	\$101,640	\$87,099
Subtotal DPW Admin.	\$278,884	\$298,350	\$288,290
Highway			
Salaries and Wages	\$212,832	\$188,401	\$182,751
Expenses	\$123,184	\$132,750	\$181,750
Subtotal Highway	\$336,016	\$321,151	\$364,501
Snow Removal			

Division	FY12 Actual	FY13 Budget	FY14 Budget
Salaries and Wages	\$42,947	\$72,400	\$72,400
Expenses	\$60,018	\$138,000	\$138,000
Prior Year Deficit	\$127,661	-	\$120,000
Subtotal Snow Removal	\$230,626	\$210,400	\$330,400
Parks & Field			
Salaries and Wages	\$38,424	\$72,651	\$71,789
Expenses	\$14,689	\$14,805	\$31,505
Subtotal Parks & Field	\$53,113	\$87,456	\$103,294
HWRSD Facilities & Grounds			
Salaries and Wages	-	\$40,135	-
Expenses	-	-	-
Subtotal HWRSD Facil/Grds	-	\$40,135	-
Cemetery			
Salaries and Wages	\$71,687	\$72,397	\$68,456
Expenses	\$19,465	\$20,535	\$19,687
Subtotal Cemetery	\$91,152	\$92,932	\$88,143
Waste, Recycling & Landfill			
Expenses	\$19,021	\$20,000	\$20,000
Transfer to Waste Enterprise	\$364,270	\$334,270	\$334,270
Subtotal Waste, Recyc, Lnfl.	\$383,291	\$354,270	\$354,270
Total Public Works Functions	\$1,778,758	\$1,884,319	\$1,980,270

Infrastructure

The following table provides an overview of the infrastructure for which the Department is responsible for maintaining.

Division	Infrastructure
Highway	<ul style="list-style-type: none"> • Responsible for the maintenance and repair of <ul style="list-style-type: none"> - 44.85 center line miles of paved surfaces - 3 miles of gravel roads • Provides snow and ice removal services for approximately 5 miles of unaccepted roads (no other maintenance provided for these paved surfaces) • With four full time positions, the ratio of center line miles to personnel is 11.2 to 1.
Cemetery	<ul style="list-style-type: none"> • Mow, trim weeds, dig graves, replace headstones on 19 acre cemetery

Division	Infrastructure
	<ul style="list-style-type: none"> • With 2.5 FTE, this equates to 7.6 acres to one FTE.
Parks	<ul style="list-style-type: none"> • Mow, trim weeds, fertilize, aerate, landscape and maintain 9-acre Patton Park. This park contains a pool and two ball fields. • 27+ acre Patton Estate is maintained by non-staff on site Caretaker • Mow and line four town recreational playing fields at Donovan, School Street, Fairhaven and Winthrop
Fleet	<p>The Mechanic is responsible for the repair and maintenance of 50 vehicles and pieces of equipment, as well as an unknown number of small engines (mowers, weed trimmers, etc.). The known fleet consists of the following units:</p> <ul style="list-style-type: none"> • 5 Patrol vehicles • 9 Trailers • 5 Utility Trucks • 4 Service Trucks • 11 Pickups • 1 Van • 1 Concrete Mixer • 1 Leaf vacuum • 6 Tractors • 2 Loaders • 1 Air compressor • 1 Chipper • 1 Backhoe • 2 Ambulances • 50 Total
Water	<ul style="list-style-type: none"> • Responsible for the maintenance and operation of a 1.2 MGD capacity plant that produces an average of about 850,000 gallons daily in summer. • Responsible for the maintenance and repair of 54.4 linear miles of distribution line • Replaced 6,528 linear feet of water line this year, with another 3,000 feet in process. This equates to about 3.3% of the total inventory of the distribution system. • Read approximately 2,500 meters on a quarterly basis • Repair 4 to 6 water main leaks annually
Facilities Maintenance	<ul style="list-style-type: none"> • Hamilton’s facilities include the following: <ul style="list-style-type: none"> - Library 29,000 sq ft - Patton Estate 6,000 sq ft

Division	Infrastructure
	<ul style="list-style-type: none"> - Water Plant 8,240 sq ft - Pub. Safety 24,430 sq ft - DPW Garage 288 sq ft - Patton Pk Pump House 60 sq ft - Patton Storage shed 60 sq ft - Total 68,758 sq ft <ul style="list-style-type: none"> • Note that the Library is jointly owned by Hamilton and Wenham. It is shown here for convenience and is not repeated in the Wenham section of this profile • Areas for the water plant, Public Works Garage, and Patton Park buildings were estimated by Facilities staff. • Areas for Senior Center and Library were estimated based on walk-through conducted by project team and Facilities staff. • Area for Town Hall provided by Assessor • Area for Public Safety Building found on as-built diagram

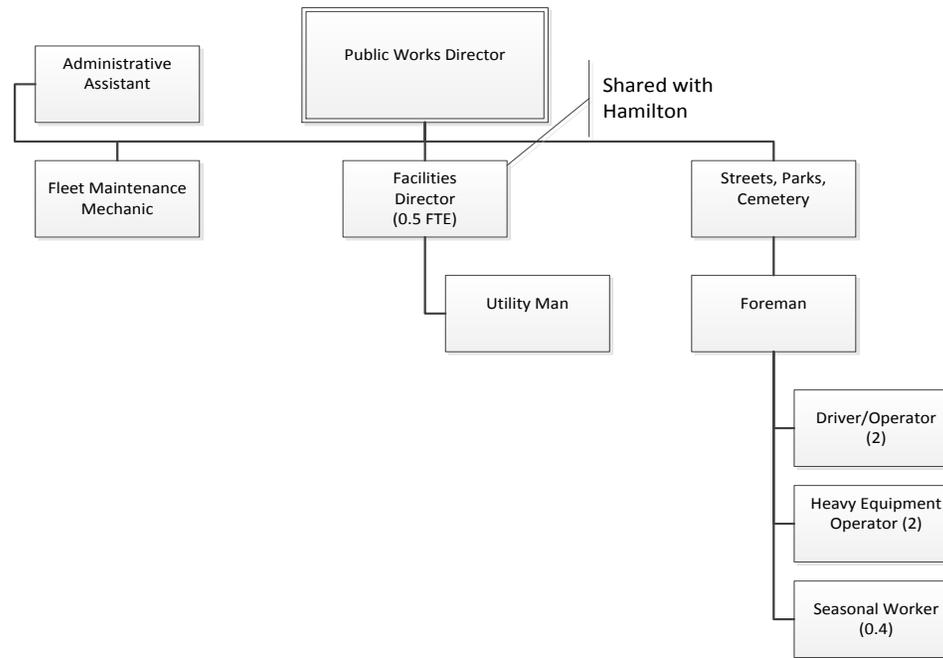
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WENHAM PUBLIC WORKS

The Wenham Department of Public Works (WDPW) has broad responsibilities in the Town. Included are divisions dealing with street improvements; street lighting; snow and ice removal; and park and cemetery maintenance. In addition, the Town shares a Facilities Director with the Town of Hamilton in providing building maintenance. Although not a division of Public Works, the Town's Water Department also provides infrastructure maintenance with a Superintendent and an Operator who are responsible for 28.25 linear miles of water distribution line. This Department is not shown in the organization chart below, however the duties and responsibilities of staff are included in the Staffing matrix below.

Organization

The following organization chart provides an overall depiction of the reporting relationships of the divisions of Public Works. Note that the chart depicts the organization as it was described to the project team, and is not offered as an official organizational structure.



Staffing and Responsibilities

The table below provides a summary is provided of Wenham’s Public Works Department and Water Department staffing and key elements of responsibilities.

Division	Staffing by Classification		Key Elements of Staffing and Scheduling
Public Works Administration	Public Works Director	1	<ul style="list-style-type: none"> • Provides the overall executive management and administration of divisions and staff within the DPW. • Responsible for developing the overall priorities of the DPW, including the development of policies and procedures, performance goals and objectives, monitoring of budget, etc. • Prepares the operating budget and confers with Town Administrator on formulating the capital improvement program, and meets with division managers on a regular basis to discuss operations, issues, performance, etc. • Ensures that department operations conform with local, state, and federal government regulations, and other applicable rules and policies. • Meets with the public to discern needs, answer questions, receive comments and complaints, and to direct DPW resources to abate these concerns and complaints.
	Administrative Assistant	1	<ul style="list-style-type: none"> • Serves as assistant to the Director, handling all correspondence, call screening, etc. • Processes invoices • Prepares all administrative work for the divisions of the Department, preparing invoices for payment • Answers phones, takes messages, disseminates general information to callers • Handles all water-related administrative duties in addition to those in the Fleet, Facilities and Streets, Parks and Cemetery divisions.
Facilities Maintenance	Facilities Director	0.5	<ul style="list-style-type: none"> • Performs plumbing/HVAC, some electrical and other maintenance and repairs on facilities in Wenham and Hamilton (excluding the Schools). • Obtains contractors for repair and oversees work of the contractors • Directs the activities of the Utility Man, who performs painting and carpentry on Wenham facilities • This position is shared with the Town of Hamilton, with each Town paying 50% of the employee’s salary

Division	Staffing by Classification		Key Elements of Staffing and Scheduling
			<ul style="list-style-type: none"> The Town's Electrician, who is in the Building Department, provides some of the more complex electrical repairs in Town facilities, and maintains cameras, lights, keypad entry system, etc.
	Utility Man	1	<ul style="list-style-type: none"> Performs painting and carpentry work on Wenham facilities
Fleet Maintenance	Mechanic	1	<ul style="list-style-type: none"> Repairs and maintains vehicles, equipment and small engines Obtains necessary parts for repairs and maintenance Diagnoses vehicle and equipment malfunctions using diagnostic equipment and experience in similar repairs.
Streets, Parks and Cemeteries	Foreman	1	<ul style="list-style-type: none"> Assigns work to staff in the Streets, Parks and Cemeteries Division, ensuring the quality and quantity of work performed Serves as a working member of a crew that may be repairing or maintaining streets, park grounds or equipment, or cemetery. Performs road maintenance, including pothole patching, utility cut repair, curb maintenance, grading of gravel roads, etc. Mows grass, trims weeds, fertilizes vegetation, landscapes and beautifies natural areas. Digs graves Patches trenches Removes snow and ice
	Driver/Operator	2	<ul style="list-style-type: none"> Serves as member of a crew that may be repairing or maintaining streets, park grounds or equipment, or cemetery. Performs road maintenance, including pothole patching, utility cut repair, curb maintenance, grading of gravel roads, etc. Mows grass, trims weeds, fertilizes vegetation, landscapes and beautifies natural areas. Digs graves Patches trenches Removes snow and ice
	Heavy Equipment Operator	2	<ul style="list-style-type: none"> Operates heavy equipment, and serves as member of a crew that may be repairing or maintaining streets, park grounds or equipment, or cemetery. Performs road maintenance, including pothole patching, utility cut repair, curb maintenance, grading of gravel roads, etc. Mows grass, trims weeds, fertilizes vegetation, landscapes and beautifies natural areas. Digs graves

Division	Staffing by Classification		Key Elements of Staffing and Scheduling
			<ul style="list-style-type: none"> • Patches trenches • Removes snow and ice
	Seasonal Worker		<ul style="list-style-type: none"> • Mows and trims Cemetery, parks and at school grounds. • Assists with leaf pickup in November • Performs limited duties in street maintenance and sidewalk repair • Works 16 hours per week during the months of April, May, Sep., Oct., Nov. Works 40 hours per week during the months of Jun., Jul, Aug.
Water	Superintendent	1	<ul style="list-style-type: none"> • Oversees the work of the staff and interacts with contractors and the public at work sites. • Work includes replacement and repair of water lines, repair of shutoffs, repair of leaks, excavating of water lines, checking and repairing pump station equipment, etc.
	Operator	1	<ul style="list-style-type: none"> • Work includes replacement and repair of water lines, repair of shutoffs, repair of leaks, excavating of water lines, checking and repairing pump station equipment, etc.

Financial

The following table provides the budgets for FY12 and FY13 for the Department of Public Works.

Division	FY12 Budget	FY13 Budget
Highway		
Salaries & Wages	\$486,454	\$499,749
Expenses	\$29,900	\$30,900
Street Maint. Expense	\$67,144	\$67,144
Capital	-	\$67,000
Total Highway	\$583,498	\$664,793
Snow Removal		
Wages	\$36,050	\$36,050
Expenses	\$70,000	\$70,000
Capital	-	-
Total Snow Removal	\$106,050	\$106,050
Street Lighting		
Expenses	\$40,000	\$40,000
Total Street Lighting	\$40,000	\$40,000

Division	FY12 Budget	FY13 Budget
Vehicle Maintenance		
Expenses	\$50,000	\$53,800
Total Vehicle Maintenance	\$50,000	\$53,800
Refuse Collection & Disposal		
Expenses	\$218,675	\$258,648
Total Ref. Coll. & Dispos.	\$218,675	\$258,648
Cemetery		
Sals & Wages (Bur. Agent)	\$3,200	\$3,264
Expenses	\$3,500	\$3,500
Contract Svc-Burials	-	-
Other-Memorial Day	\$500	\$500
Other-Vets Graves	\$200	\$200
Capital	-	-
Total Cemetery	\$7,400	\$7,464
Gasoline & Oil		
Expenses	\$68,500	\$68,500
Total Gasoline & Oil	\$68,500	\$68,500
General Fund DPW		
Operating	\$1,074,123	\$1,132,255
Capital	-	\$67,000
Total General Fund DPW	\$1,074,123	\$1,199,255
Water Fund		
Salaries & Wages	\$146,043	\$146,690
Expenses	\$110,200	\$116,750
Contract Service	\$4,445	\$4,320
Capital	\$15,000	\$15,000
Subtotal Water	\$275,698	\$282,760
Water Tank Expense	\$150,799	\$146,493
Total Water Fund	\$426,497	\$429,253

In addition to the figures presented in the table, the Town of Wenham splits the costs associated with building and grounds maintenance with the Town of Hamilton. These costs are as follows for the Town of Wenham.

Division	FY12 Budget	FY13 Budget
Buildings & Grounds		
Salaries & Wages	\$66,350	\$67,357
Expenses	\$32,997	\$29,997
Contract Service	\$30,000	\$33,000
Capital	\$10,000	\$22,000
Total Bldgs & Grounds	\$139,347	\$152,354

Infrastructure

The following table provides an overview of the infrastructure for which the Department is responsible for maintaining.

Division	Infrastructure
Highway	<ul style="list-style-type: none"> Responsible for the maintenance and repair of 34 center line miles of paved surfaces
Cemetery	<ul style="list-style-type: none"> Mow, trim weeds, dig graves, replace headstones on 19 acre cemetery
Parks	<ul style="list-style-type: none"> Mow, trim weeds, fertilize, aerate, landscape and maintain 16.5-acre Pingree Park. This park contains a baseball field, a tennis court, multiple playground areas, soccer nets, benches, swings and child play area.
Facilities	<ul style="list-style-type: none"> The Town of Wenham has the following facilities: <ul style="list-style-type: none"> - Public Works Garage 5,600 sq ft - Iron Rail building 15,500 sq ft - Boy Scout building 7,386 sq ft - DPW storage shed 874 sq ft - DPW Salt shed 2,600 sq ft - Recreation building 3,784 sq ft - Town Hall 7,500 sq ft - Police 5,000 sq ft - Fire 8,004 sq ft - Water Pump Sta. 480 sq ft - Pingree Storage 600 sq ft - Cemetery 672 sq ft - Center School admin. 75,464 sq ft - Total 133,464 sq ft
Fleet	<ul style="list-style-type: none"> 22 units plus small engines and attachments
Water	<ul style="list-style-type: none"> Responsible for the maintenance of the following infrastructure:

Division	Infrastructure
	<ul style="list-style-type: none">- 28.25 linear miles of distribution line- 213 fire hydrants- 2 wells- 2 storage tanks- 2 pump stations

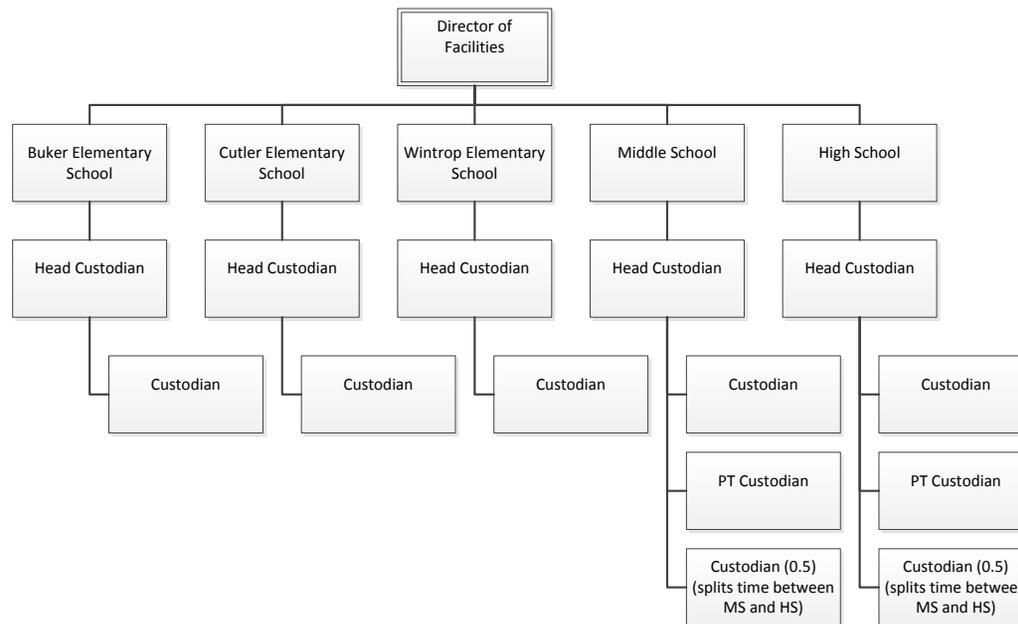
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HAMILTON-WENHAM REGIONAL SCHOOL DISTRICT MAINTENANCE

The Hamilton-Wenham Regional School District (HWRSD) Facilities Director is responsible for the operation and maintenance of five schools, and the Administration Building. This is accomplished with five Head Custodians, six full-time Custodians and two part-time Custodians. The towns of Wenham and Hamilton perform landscaping for the three elementary schools, the middle school and the high school. Maintenance of the high school football field is performed by an outside contractor. In addition, the HWRSD outsources major preventive maintenance and for other major repairs such as roof repairs, electrical, plumbing, and HVAC work.

Organization

The HWRSD Facilities maintenance organizational structure is portrayed in the organization chart below.



Staffing and Responsibilities

In the following table, a summary is provided of the HWRSD facilities maintenance staffing and key elements of responsibilities.

Division/Unit	Staffing by Classification		Key Elements of Staffing and Scheduling
Administration	Facilities Director	1	<ul style="list-style-type: none"> • Supervises all functions related to the maintenance of the schools • Responsible for overseeing maintenance and repair duties and custodial services • Serves as the primary customer interface for schools maintenance • Analyzes work, and prepares reports of activity. • Develops capital improvement plans for the schools • Develops budgets and schedules for the Division and for individual projects.
Maintenance	Head Custodian	5	<ul style="list-style-type: none"> • Directs the activities of assigned Custodians at specific schools • Ensures the quality of work of assigned staff by inspecting condition of facilities at beginning of day • Performs custodial work such as cleaning floors, cleaning restrooms, emptying trash, and performing light maintenance at Town facilities. • Sets up areas for meetings and assemblies. • Head Custodians at Buker, Cutler and Winthrop schools work from 6:00 am till 2:00 pm • Head Custodian at Middle School works from 5:00 am till 1:00 pm • Head Custodian at High School works from 3:30 am till 12:30 pm
	Custodian PT Custodian	7 2	<ul style="list-style-type: none"> • Performs custodial work such as cleaning floors, cleaning restrooms, emptying trash, and performing light maintenance at HWRSD facilities. • Sets up areas for meetings and assemblies. • Custodians at Buker, Cutler and Winthrop schools and the Middle School work from 12:00 noon till 8:00 pm. • Part time Custodian at Middle School works from 1:00 pm till 5:00 pm • Custodians at High School work from 2:00 pm till 10:00 pm • Part time Custodian at the High School works from 12:00 noon till 4:00 pm • One Custodian splits time evenly between Middle School and High School. This employee works from 3:30 am till 12:30 pm.

Financial

The following table provides the budget for FY13 for the HWRSD Maintenance Division.

Category	FY13 Budget
Salary Maintenance Director	\$77,418
Salary Prof Maint Director Travel	\$10,000
Main Director Clothing	\$700
Salary/Clerical Faciliites	\$776
Custodial OT Salary	\$0
Custodial Other Expense	\$459
Sub-Total Maintenance-Admin	\$89,353
Custodial Salaries	\$579,884
Yearly Maintenance	\$156,370
Custodial Supplies, Materials	\$72,778
Fire System Maintenance	\$9,393
HVAC Maintenance	\$10,418
Annual Inspection and Equipment Maintenance	\$21,255
Unforeseen but Necessary Repairs	\$137,613
Sub-Total Maintenance Schools	\$987,711
Total Facilities Maintenance	\$1,077,064
Highway Expenses	\$750
Parks and Fields Expenses	\$62,294
Snow Removal	\$20,607
Total Grounds Maintenance	\$83,651
Total HWRSD	\$1,160,715

Facilities

The following table provides the areas of the facilities for which the HWRSD Facilities Maintenance function is responsible.

Site	Gross Floor Area (s.f.)
Buker Elementary School	44,700
Cutler Elementary School	45,800
Winthrop Elementary School	46,000
Miles River Middle School	91,200
Hamilton-Wenham Regional High School	125,600
Center Administration Building	16,740
Total Area	370,040

Chapter 3

Legal Framework for Inter-Municipal Agreements

Prepared for the

Towns of Wenham and Hamilton, Massachusetts
And the Hamilton-Wenham Regional School District

November 2013

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INTER-MUNICIPAL AGREEMENTS

LEGAL FRAMEWORK

BACKGROUND

In recognition of municipal governments' resource limitations, the Commonwealth of Massachusetts has promoted the concept of sharing resources (a.k.a., regionalization) as one means to continue providing quality services at the local level. In 2008, the State Legislature made entering into agreements easier by amending Massachusetts General Law to allow towns to approve shared service agreements by vote of the board of selectmen, thereby eliminating the need for a vote at town meeting.

The Department of Revenue, the Massachusetts Association of Regional Planning Agencies (MARPA), and other regional agencies, such as the Metropolitan Area Planning Council (MAPC) have taken leadership roles on this issue, creating toolkits and checklists, and otherwise providing information to assist municipalities considering entering into such agreements. In addition to practical information on how to engage in a conversation about shared services, these offices also offer insights into the legal framework within which any agreement must operate.

In this report, the Collins Center provides a brief summary of the inter-municipal agreements (IMAs) that Hamilton, Wenham, and the Hamilton-Wenham School District have entered into to date and outlines the legal framework for shared service agreements for consideration by the Steering Committee. Any actual agreement, of course, would have to be drafted and approved by legal counsel for the two towns and the school district.

OVERVIEW OF EXISTING AGREEMENTS

Hamilton and Wenham have decades of experience in working together through inter-municipal agreements and, in fact, the towns are referenced more than once in the MARPA materials as models to follow. In recent years, the School District has joined in on collaborative efforts, as well. The towns have worked together in at least nine (9) different service areas which are summarized below:

- **Emergency Command Center** – As early as 1959, the towns entered into agreement for the shared operation of an emergency command center, an agreement that was later amended in 1960 and 1989. The joint command center is located in Hamilton and an eight-member Emergency Command Center Operations Board is responsible for operating the facility. The board consists of the Chief Dispatcher of the Center, the police and fire chiefs of the two towns, the Wenham Highway Superintendent, the Hamilton Superintendent of Public Works, and one resident. All staff at the Center are employees of the Town of Hamilton. A detailed agreement outlines the sharing of operating costs, equipment, and radio frequencies, with certain expenses shared 50:50 and other expenses calculated via other formulas. Hamilton funds the operation of the Center and is then reimbursed by Wenham. Each year, the budget for the Center is presented to the Finance

committees of both towns. In 2013, Wenham withdrew from the agreement. Hamilton is currently looking into the potential to collaborate with Ipswich and Manchester.

- **Joint Recreation Program** – In 1989, the towns entered into an agreement for the provision of a shared recreation program operated out of the Hamilton Recreation Center. Costs for the Center are apportioned based upon each town’s assessed valuation, with Hamilton initially incurring the costs and then being reimbursed by Wenham. All staff of the program are employees of the Town of Hamilton. Management and direction of the program is provided by a seven-member Joint Recreation Committee, one of whom is the Director of the recreation program in addition to three members appointed each of the two boards of selectmen. Each of the towns also pays its respective portion of a \$12,500 lease payment made annually to the Joint Committee.
- **Joint Library** – In December 1998, the towns entered into agreement to build a new joint library on a parcel owned by the Town of Hamilton where an existing gym and fields were located. The new library was to be owned by both towns via a “tenant in common” arrangement, while the gym would be dedicated to the exclusive use of the Hamilton-Wenham Joint Recreation Committee. A six member (3 from each community) Joint Library Board was established to take the place of the Board of Trustees of the Hamilton Library and Board of Trustees of the Wenham Library. All staff at the library are employees of the Town of Wenham. Library costs are apportioned annually to the two towns on the basis of each town’s average valuation over the three preceding fiscal years, with Wenham initially incurring the costs and then being reimbursed by Hamilton. As part of the agreement, Wenham became a co-owner of the recreation building, although not the land underneath. Via a separate agreement Hamilton and Wenham leased/sub-leased the library to the Joint Library Board and the recreation center to the Joint Recreation Board. A separate management agreement establishes the standards by which the facilities are to be maintained by the two boards.
- **Shared Council on Aging Van** – In November 2003, the towns agreed to share the cost of operation of a van to meet the transportation needs of seniors in both communities. Wenham was to be responsible for managing the contract with the service provider for the first five years of the agreement and Hamilton was to be responsible for the last five years of the agreement. Costs were initially apportioned based upon the assessed valuation of the towns, but after the second year of operation was completed, costs were shifted to reflect actual use of the van, establishing a percentage ratio using an average of the use during the three prior calendar years. Additionally, the town not responsible for management would pay an additional 10% administrative surcharge to the managing town. In 2009, an amendment was approved so that Wenham would continue to manage the van operator and Hamilton would continue to pay the 10% administrative fee. This arrangement was discontinued in 2013.
- **Facilities Maintenance Program** – In June 2009, the towns entered into agreement to jointly fund a Facilities Maintenance Technician, by each budgeting for a half-time technician using a mutually agreed upon job description, and hiring the same individual to work for both towns. The technician was allowed to determine which town’s health plan to join and the other town would pay for half of the cost of the other’s health plan. In addition, each town independently contributes to the employee’s retirement plan in the Essex Regional Retirement System. Each town is separately responsible for supervising the employee’s work and the employee has two supervisors, one in each town’s public works department.
- **Council on Aging** – In February 2011, building on the agreement for the shared van, the two towns agreed to jointly hire a single Council on Aging Director who would serve both communities. As with the Facilities Maintenance Technician, the Director was hired as a half-time employee of both towns based upon a mutually agreed upon job description. In May 2013, the residents of Hamilton voted

to fund a full-time director position and the Town withdrew from the agreement effective July 1, 2013. Hamilton also indicated at that time that it would not renew the shared van agreement.

- **Waste Disposal Contract** – In March 2012, the two towns entered into a joint contract with Hiltz Waste Disposal, Inc. While this contract allows each town to elect the frequency and type of services it desires, by combining together and moving to an automated system, the towns were able to secure a better price for the service than they would independently. Both communities get weekly single-stream recycling and curbside composting.
- **Hamilton-Wenham-Regional Schools Capital Projects** – In June 2012, the two towns and the Regional School District reached an agreement to work together to complete the capital improvements needed before the start of the 2012-2013 school year. In this agreement, the School District would utilize the expertise of the towns' Capital Management Committee as it proceeded with developing bid documents and hiring contractors to do the work. The CMC would review bids that have been submitted by potential contractors and provide recommendations on the hiring. In this agreement, the three organizations expressed their intent to pursue creation of a joint public works "virtual" department. Even though the agreement expired in September 2012, collaborative efforts continued in summer 2013.
- **Hamilton-Wenham-Regional Schools Grounds Maintenance and General Clean Up** –In this agreement, which is similar to the capital projects and building maintenance agreements, both towns agree to provide grounds maintenance services to the School District and invoice the District for the work performed. Services include mowing all lawns and fields (except the high school football/soccer field), weed control, removal of fallen leaves, mulching, etc. in addition to spring clean ups of parking lots, and driveways on school property. Town staff are to work with school principals and the Manager of Maintenance and Facilities to prepare a work plan and schedule.
- **Hamilton-Wenham-Regional Schools Building Maintenance** – In this agreement, both towns would provide general building maintenance services for school facilities and invoice the District for the services performed. Work under the agreement would include electrical and plumbing services, HVAC services, general carpentry, and general painting. In addition, the DPW Directors from both towns and the District's Manager of Maintenance and Facilities are to meet annually no later than September 30th to plan for extraordinary repairs and capital improvements to be performed. This agreement has been drafted, but not fully executed as of the writing of this report.

The agreements entered into to date reflect at least two different structural arrangements. In the library, recreation center, and dispatch center agreements, one town is responsible for managing the operation, while the other town pays its proportionate share of the costs. An oversight committee or board representing both communities helps guide the operation and make sure perspectives from both communities are heard. (The agreements with the School District are similar, in that the District is hiring town staff to perform services, but payment is made based upon actual work performed as opposed to a percentage share of the operation.) In the second type of arrangement, as seen in the Building Maintenance Technician and Council on Aging Director, the two towns worked together to develop a shared position description, but then independently hired a candidate for the job. In this type of agreement, the only financial payments made are for a share of the employee's health plan after he/she has selected which town's plan to join.

LEGAL CONTEXT

As described by MARPA and MAPC, three basic types of inter-municipal contracts can be found across Massachusetts. The types of contract include:

- a) Formal contract – one town agrees to provide a service to another for an agreed upon price;
- b) Joint services agreement – agreements to plan, finance, and deliver a service within the boundaries of all participating jurisdictions where each town shares the cost to finance and deliver a range of departmental-type services; and,
- c) Service exchange agreements – commitment by each participating community to provide a defined service, as needed or requested, with no payment for costs.¹

Mutual aid agreements, which are the most common type of agreement, fall into the third category.

Massachusetts General Law (M.G.L., Ch. 40, §4A) allows for governmental units to enter into contract with another to contract for services or to perform services jointly, with a maximum length of agreement of 25 years. Particular emphasis is placed on the financial arrangements between the parties, with the requirement that financial records be sufficiently detailed, audited, and made available to the participants in the agreement. As the section specifically states:

All agreements put into effect under this section shall provide sufficient financial safeguards for all participants, including, but not limited to: accurate and comprehensive records of services performed, costs incurred, and reimbursements and contributions received; the performance of regular audits of such records; and provisions for officers responsible for the agreement to give appropriate performance bonds. The agreement shall also require that periodic financial statements be issued to all participants.²

In addition to Chapter 40, Section 4A, several State law provisions apply to specific service areas commonly found within public works departments.

¹ Massachusetts Department of Revenue, “Inter-Municipal Agreements”, June 2009, retrieved at <http://www.mass.gov/dor/docs/dls/mdmstuf/technical-assistance/finmgtrv/intermunicipalagreements.pdf>, October 8, 2013.

² M.G.L., Ch. 40, §4A.

REGIONALIZATION STATUTES (DPW-RELATED ONLY) ³		
Type	Citation	Summary
Regional refuse disposal districts	40:44A-44L	Establishes the process to plan for and approve the creation of a regional refuse disposal district as a separate body politic and corporate with powers construct, equip, and manage a refuse disposal facility. Powers include eminent domain.
Regional recycling program	40:8H	A city, town, or district may establish, by approval of the local legislative body, a recycling program.... The program may be established for groups of cities, towns, or districts upon agreement of all municipalities or districts in a joint program.
Joint road maintenance	84:5	When a highway runs through two or more towns, they may appropriate money for the construction, repair, maintenance or improvement and may purchase road machinery in common.
Joint applications for road and chemical storage assistance	16:4D	Towns can jointly apply for grant funds for the construction of chemical storage facilities.

The Massachusetts Department of Revenue has prepared a checklist (see Appendix A) of elements that should be included in any agreement. The checklist identifies five broad sections of the agreement as follows:⁴

- I. General Terms – describes the participants, general purpose of the agreement, the effective dates, how the agreement can be amended or terminated, acceptance of liability, and severability;
- II. Operations Terms and Conditions – describes the services to be provided, the implementing agency(ies), staffing, where department will be located, reporting relationships, lines of communication, and dispute resolution process;
- III. Financial Terms and Conditions – describes costs to be shared (e.g., labor, benefits, operating expenses, new capital expenses), how budget will be approved by each participating agency, how costs to be allocated, payment methodology, insurance and indemnification requirements;
- IV. Financial Safeguards – as required by Chapter 40, Section 4A:
 - a) The host town must maintain accurate and comprehensive records of services performed, costs incurred, and reimbursements and contributions received;
 - b) The host town must arrange for performance of annual audits of such records, which audits can be part of the host town’s annual, independent audit of its financial statements;
 - c) The host town must ensure that all officers or staff responsible for carrying out the terms and conditions of this agreement shall give appropriate performance bonds;

³ Massachusetts Department of Revenue, Division of Local Services, “List of Statutes Providing for Regionalization”, retrieved at <http://www.mass.gov/dor/docs/dls/mdmstuf/technical-assistance/region-resource/enabling-statutes.pdf>, October 8, 2013.

⁴ Department of Revenue, “Inter-Municipal Agreement Checklist”, <http://www.mass.gov/dor/docs/dls/mdmstuf/technical-assistance/region-resource/ima-checklist.pdf>, retrieved October 8, 2013.

- d) The host town must provide the parties with monthly expenditure reports and quarterly revenue reports and any other information reasonably requested by the non-host town to present a complete picture of the financial condition of the shared department, function or position;
 - e) The parties otherwise must comply with all other provisions of M.G.L. c.40,§4A.
- V. Signatures.

CONSIDERATIONS FOR HAMILTON - WENHAM - SCHOOL DISTRICT POTENTIAL DPW AGREEMENT

As evidenced by the many agreements summarized above, the two towns and the school district have years of experience collaborating with each other. In fact, Hamilton's and Wenham's accomplishments in this area are recognized in some of the toolkits and information packets as potential models for other communities to use.

However, other than the School District's operation itself, the potential collaboration around public works services currently under consideration is larger than any to date, in terms of the array of different services that may be provided, financial resources – both capital and operating - and number of staff positions. The existing departments also have considerable capital assets that they own/manage (e.g., vehicles, equipment, and facilities), which will have to be addressed in any agreement.

Before drafting a specific agreement, a few key questions will need to be asked and answered:

1. Given that the School District has indicated it is not interested in taking on management responsibility for the DPW functions, which town will manage the services that are to be consolidated?;
2. How will the services be described? Will service level standards be established? What standards should be used? (e.g., 24 hours to respond to a facilities complaint; 72 hours to fill a pothole?, etc.)
3. Will staff be transitioned from one organization to the other? If so, how will they be transitioned? (One important consideration is that any inter-municipal agreement cannot void or circumvent provisions of collective bargaining agreement and the IMA can be grieved by a union.);
4. What will the process be to exit an agreement and dismantle the collaboration? How capital assets will be returned to the originating department must be articulated and the process for determining how jointly-purchased equipment is allocated will need to be established. If one department is to buy out the other, then some depreciation methodology will be needed so that the current value is determined. What will happen to staff?
5. What is the preferred governance structure? The towns have experience with boards and joint committees as part of the dispatch center, library, etc. Should one be established for public works? If a board or commission is not desired, then how will the purchasing department have the ability to influence departmental priorities and ensure that their local needs are met?

Attachments:

1. Department of Revenue, List of Statutes Providing for Regionalization
2. Department of Revenue, IMA Checklist

APPENDIX A

List of Statutes Providing for Regionalization

Inter – Municipal Agreement Checklist

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List of Statutes Providing for Regionalization

TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
GENERAL PROVISIONS					
Intermunicipal agreements (IMAs)	40:4A	<p>Agreement by CEOs of governmental units with approval of selectmen, mayor & council or prudential committee</p> <p>Contracting units include cities, towns, regional school districts, improvement districts, regional planning commissions, water & sewer commissions, counties and state agencies</p> <p>Approval of school committee needed if involves supplementary education centers and innovative educational programs</p>	By agreement	By agreement	<p>Units may jointly perform, or have one perform on behalf of others, any service, activity or undertaking any unit can perform</p> <p>25 year maximum</p>
Joint performance of services	43C:15				Consolidated municipal departments (finance, inspections, community development) may participate in IMAs

GENERAL GOVERNMENT

Regional assessing	41:30B	Agreement approved by participating cities or towns (legislative body vote) and approved by Department of Revenue (DOR)	By agreement. Initial committee of representative assessors develops methods and procedures for sharing services of assistant assessor. Thereafter, per DOR, Board of Directors.	Fair allocation of expenses between communities per terms of approved agreement. Annual appropriation of funds.	Approval and oversight of local agreements by DOR See DOR IGR 81-402
Regional health care coverage	32B:12	Acceptance of c. 32B, by agreement of "appropriate public authorities" of 2 or more governmental units			See 32b:2(a) definition of appropriate public authority – mayor in city, selectmen in town, governing board in district, county commissioners in county (except Worcester), trustees of charter school, directors of educational collaborative
Regional retirement systems	34B:19	Statutory successor to an abolished county retirement system	Regional retirement board	Assessment by regional retirement board (how determined??)	Regional retirement board advisory council created.
Regional charter commissions and councils of government	34B:20	Regional charter commission established by acceptance by legislative bodies. Commission develops proposal for structure of a regional council of government (RCG). Council charter proposal must be approved by majority of voters in a community (referendum) for it to participate.	RCG created by charter.	Annual assessment of members	

TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
Collective purchasing	7:22B, 22A	<p>§ 22A – Statutory authority for joint purchases with Commonwealth or other municipalities through state purchasing agent. (“join together”)</p> <p>§ 22B - Statutory authority for joint purchases by municipalities with one serving as lead purchasing agent. (“join together”)</p>	Regulations of state purchasing agent	Each unit remains solely responsible for payments due vendor.	(Need to search regulations)
Regional service centers (for development of GIS technology and data)	21A:4B	Executive Office of Energy & Environmental Affairs (EOEEA) – Office of Geographic and Environmental Information establishes regional service centers to assist governmental units in the development and use of GIS technology.	By EOEEA	State appropriation	Coordinates GIS data sharing agreements between governmental units

PUBLIC EDUCATION

Regional school districts	71:14-16I	71:15 Acceptance by municipalities (legislative body vote) of 71:16-16I, under agreement approved by Department of Elementary & Secondary Education (DESE)	Regional School Committee (RSC), chosen in accordance with agreement	Budget adopted by RSC, approved by 2/3 of member communities in 3 or more member districts, both members in 2 member districts	
School superintendency unions	71:61-64	Agreement of school committees of towns each with <\$2.5m valuation, & aggregate # of schools between 25 and 75. DESE can form or adjust union without regard to valuation or # of schools	Joint committee of member towns’ school committees fixes salary & benefits of superintendent.	Costs allocated among members in accordance with 71:65 (which has been repealed) – so presumably by agreement	Needs 2/3 vote of joint committee & DESE approval to fire superintendent. Also, DESE approval to dissolve union.
Education collaboratives	40:4E	Agreement by school committees	Board of directors, 1 appointed by each school committee	Not determined by statute	Has own treasurer; RAN borrowing; is public employer
Joint school committees	71:63	Part of superintendency union statutes – see above			
Joint directors of occupational	71:38D	District formed by vote of towns (not school committees) to employ joint director of occupational guidance & placement	Joint committee of member towns’ school committees	Joint committee annually appoints director, fixes salaries & apportions costs among members.	Any member can withdraw

PUBLIC HEALTH

Regional health districts	111:27A-27C	Vote of municipalities (towns only, & not in Barnstable Co. under § 27A)	<p>§ 27A: Joint health committee of member towns’ boards of health, or 1 or more members from each board</p> <p>§ 27B: single regional board of health, members appointed by</p>	<p>§ 27A: joint committee develops & allocates budget, which members raise in tax levy without appropriation</p> <p>§27B: regional board adopts budget, apportions cost</p>	
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TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
			each municipality by whatever method it chooses	among members according to choice of formulas in statute. Assessments raised in levy without appropriation	
Joint infirmaries	47:4	Nothing in statute, presumably town meeting vote	Nothing in statute	Nothing in statute	

PUBLIC LIBRARIES

Joint public library	78:19A	Nothing in statute	Nothing in statute	Nothing in statute	§ 19A relates only to state aid reimbursement
Regional public library service	78:19C-19D	Nothing in statute; can include private as well as public libraries – see 78:19D	State Board of Library Commissioners designates administrative agency; council of members, duties prescribed by bylaws of regional system, as approved by state Board	Nothing in statute about budget; state reimbursement under 78:19C	Relates to sharing of library resource materials

PUBLIC SAFETY

Fire districts	48:60-80 (see §§ 67 & 79)	Vote of town meeting(s) to organize the fire district and department and establish boundaries of the district by petition or residents of proposed district	Elected prudential committee as CEO & district meeting as legislative body	District property tax assessed by member town assessors, collected by town collectors and turned over to district treasurer	Not clear how districts in more than one town are formed
Regional police districts	41:99A-99K	Approval of a majority of the voters of member towns (referendum)	Regional police commission organized by member towns' boards of selectmen, each appointing 2 members of the commission	Regional police commission determines its budget and assesses member towns using statutory formula based on EQV, population and miles of road of member towns	Unclear whether towns with police covered by civil service may be included
Regional EMS council (Emergency Medical Services System)	111C:4	Designated by State Department of Public Health (DPH)	10 to 35 members selected by DPH, some of which represent different aspects of EMS community	Revenue from contracts with DPH	More of an agency of the state than a separate local district
Regional emergency communication centers and PSAPs (Public Safety Answering Points/Enhanced 911 Service)	6A:18A-18J; 166:14A	Agreement between governmental bodies in regional areas determined by the state 911 department	None specified in legislation, presumably as provided in the intergovernmental agreements	Not specified in the statutes, presumably from general fund revenues in proportion to the governmental bodies as specified in the agreements	Regional communication centers and PSAPs are part of a statewide plan for emergency dispatching services provided locally or regionally. Telecommunications companies must provide capabilities to reach the 911 centers and may charge special fees to offset their costs
Mutual police aid programs	40:8G	Agreement between communities upon acceptance of 40:8G in those communities	Governed by terms of mutual aid agreement	Financed by general municipal revenues as per mutual aid agreement	Allows for mutual aid agreements between contiguous towns in and outside MA.

TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
PUBLIC UTILITIES					
Regional municipal water supply system	21:9A, 20	Two or more municipalities by vote of the legislative body	Town meeting vote or vote of town council or city council	Appropriation by each local community	
Sewer districts (re references to buy services)	83:1	Vote of sewer department in each member community, if authorized by ordinance or bylaw	Each member community's sewer department	Appropriation in accordance with contract terms	Contracts may not exceed 20 years
Regional water/sewer district commissions	40N:25	Vote of town meeting, town council or city council	Regional district commission	Regional district agreement includes financing provisions	
Regional local government unit (Water Pollution Abatement Revolving Loan Program)	29C:1	Vote of town meeting, town council or city council	Bylaw or ordinance of city or town providing service	Assessments or other charges on cities and towns receiving wastewater collection or treatment services	
Municipal Light Plant Cooperatives	164:47C	Vote of municipal lighting plants	Board of not less than 3 directors elected by and from the members of the cooperative	In accordance with cooperative agreement	
Municipal Group Electric Load Aggregation	164:134	Majority vote of town meeting, town council or city council	In accordance with plan approved by Department of Energy Resources	Appropriation by members in accordance with service agreement	
Energy Cooperatives	164:136	Vote of town meeting, town council or city council	Board of not less than 3 directors elected by and from the members of the cooperative	In accordance with agreement	
Group Utility Purchasing Arrangements	164:137	Vote of town meeting, town council or city council	In accordance with group purchasing agreement	In accordance with agreement	
Regional refuse disposal districts	40:44A-44L	Vote of town meeting, town council or city council	Regional refuse disposal district committee	Annual assessments as determined by district committee	
Regional recycling programs	40:8H	Vote of town meeting, town council or city council	In accordance with agreement	In accordance with agreement	
Regional water pollution abatement district	21:28	<p>District proposed by Division of Water Pollution Control (DWPC) within Department of Environmental Protection, and approved by Water Resources Commission.</p> <p>Within 90 days if legislative bodies of municipalities do not approve, Director of DWPC may order c. 30A hearing on necessity of district. If finds needed to control water pollution, may declare district formed (mandatory district).</p>	<p>District commission made up of 2 members of each town appointed by selectboard</p> <p>Commission of mandatory district made up of 3 members appointed by Director of DWPC</p> <p>Commission appoints executive director</p>	<p>District plan for water pollution abatement facilities submitted to DWPC. Plan must include formula DWPC finds equitable for allocating operating and capital costs. May be based on 2 or more factors (population, EQV, waste volume and type, other factor DWPC considers appropriate)</p>	<p>Act of legislature required to dissolve district</p>

TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
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PUBLIC WORKS

Joint road maintenance	84:5	Agreement between communities with common highways to construct, repair, maintain and improve roads and to share road machinery	Governed by terms of town meeting votes and appropriations	Funding per terms of town meeting votes and appropriations	
Joint applications for road and chemical storage assistance	16:4D	Opportunities to apply for joint project grants for 2 or more eligible towns created by rules and regulations of Commissioner of Highways (Mass Highway)	Governed by the rules and regulations of Mass Highway	Financed from grants through towns grant accounts or under rules and regulations of Mass Highway	Does not specifically authorize a joint project, per se, but merely joint grant application

RECREATION & CULTURE

Cooperative Recreation Facilities	45:14	Vote of legislative body of 2 or more towns to authorize recreation departments to cooperate in providing recreational facilities and programs	Authorized recreation departments establish the cooperative arrangements	Expenses to maintain and support facilities and programs apportioned by recreation departments	
Regional cultural council	10:58	Any group of cities and towns may form regional council with approval of MA Cultural Council	Regional council has equal number of members appointed by mayor or selectmen. By 2/3 vote, the regional cultural council can adopt proportional representation corresponding to the populations of participating cities and towns. Council members serve for staggered 3 year terms.	Regional cultural councils disburse arts lottery funds, other "allocable" receipts including gifts and grants, and interest earned on the portion of council money which is invested. Appropriation not required (revolving fund).	
Regional beach districts	40:12B-12G	District formed by vote of legislative bodies of 2 or more contiguous cities or towns to acquire, develop, maintain and operate beaches	Commission appointed by a "joint committee" including mayor & city council president of each city, and the chair of selectboard in each town. Joint committee also determines number and terms of office of commission members.	Not specified in statute-presumably by agreement	Treasurer of 1 of members acts as treasurer for district Director of Accounts to annually audit district accounts. Cost apportioned based on most recent EQV. State treasurer to issue warrant to assessors to raise in tax levy without appropriation and pay over.

REGULATORY FUNCTIONS

Regional planning districts	40B:3, 11	District established by vote of legislative bodies of 2 of more cities or towns. Other cities & towns may apply for admission. Acceptance by 2/3 vote of the representatives of the member cities and towns.	District planning commission made up of 1 member from planning board of each participating community. Commission elects officers from among its members annually. 2/3 vote of district planning commission may establish an executive committee.	Annually in February, district commission prepares budget. Budget apportioned among member municipalities, subject to per capita limits adopted by 2/3 of legislative bodies of member communities. Commission certifies each city or town's share of the budget to the assessors to be raised in	
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TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
				levy without appropriation	
Joint regulation of motorboats	90B:15	Joint action to regulate motorboats on sharing water ways or bodies in 2 or more cities and towns. Local motorboat regulations cannot conflict with 90B	Adoption of uniform regulations requires "joint action," presumably by legislative bodies, of cities and towns sharing the waters	No financial arrangements are specified – presumably each municipality covers its own enforcement costs.	
Joint air pollution control districts	111:142C	Joint request by cities and towns to state DPH to form district. DPH. must approve. District similar to Metropolitan Air Pollution Control District of 111:142B	DPH may regulate "air contamination sources" and set up "air sampling stations" within the pollution control district	Participating cities and towns must reimburse Commonwealth for the cost of pollution control activities. State treasurer issues warrant to assessors in district communities to assess tax based half on assessed valuations and half on population	

TRANSPORTATION

Regional transit authorities	161B	<p>Authority formed by any city or town, or group of cities and towns, other than those in MBTA with bus service, by approval of selectmen in town, city manager in a Plan E city or council and mayor in other city and notice to Governor</p> <p>Any city or town, or group of cities and towns, other than those in MBTA with bus service or in authorities provided for 161B:2 & 14, may join contiguous authority by approval of selectmen in town, city manager in a Plan E city or council and mayor in other city</p> <p>City or town can withdraw upon approval of referendum placed on ballot by vote of city council, town meeting or petition of 5% of registered voters</p>	<p>Advisory board made up of city manager of each Plan D or E city, chair of selectboard of each town, or town manager or administrator (or designees). Each community has 1 vote, plus additional votes in proportion to state assessments on members. Non-voting representative from disabled commuting population appointed on rotating basis from members.</p> <p>Advisory board can establish executive committee according to bylaws</p> <p>Advisory board appoints administrator as chief executive officer</p>	<p>Annual budget prepared by administrator and approved by advisory board</p> <p>Budget not covered by operating revenues funded by cherry sheet assessments on members based in proportion to cost of service within member and state contract assistance</p>	May issue debt up to 40 years; biennial audits by state auditor
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ECONOMIC DEVELOPMENT

Economic development regional commission	40B:5	District formed by votes of legislative bodies of cities and towns to make recommendations for physical, social, governmental or economic improvement of the district	District planning commission made up of 1 member of the planning board of each city and town voting to join district	Commission annually apportion expenses and certifies the amount to assessors of members who raise in tax levy without appropriation	District may issue RANs by a majority vote of commission
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TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
OTHERS					
Regional veterans' districts	115:10-15	District formed by votes of legislative bodies of 2 or more adjoining towns, or 2 or more adjoining municipalities of which only 1 may be a city , to provide veterans with information about and assist them in obtaining available benefits	District board made up of mayor or his/her designee of each city, chair of selectboard or his/her designee of each town, and the town manager or his/her designee if town council form of government Board appoints director of veterans' services who performs the duties of the veteran's agent in each member city or town. District board also designates a treasurer of 1 of member municipalities as district treasurer.	District board determines district expenses and apportions them on members based on most recent EQQ, most recent federal census, or by other means determined by a unanimous vote of the district board to be fair and equitable to each community. Board notifies local treasurers of apportionment. They certify amount to assessors who raise in tax levy without appropriation.	Director of Accounts to annually audit district accounts. Cost apportioned based on most recent EQV. State treasurer to issue warrant to assessors to raise in tax levy and pay over.
Joint airport enterprise	90:51N	<p>By vote of the city council with the approval of the mayor or by vote of a town meeting, 2 or more municipalities may establish, maintain and operate airport as joint enterprise.</p> <p>Within 30 days after the votes, mayor and city council and selectmen of communities must meet to draft agreement. Agreement must be approved by the airport commission and the Director of Accounts and be agreed to by the mayor and city council of each participating city and the town meeting of each participating town.</p> <p>Agreement to establish a joint airport commission and joint airport fund and specify the proportionate interest of each participating municipality in the airport and its proportionate share of the expenses</p>	The joint airport commission acts as agent of all municipalities in operating airport. Joint commission chooses the officers to maintain and operate the joint enterprise.	Joint airport commission determines amounts needed to run joint airport. Apportions amount needed above amount available in joint fund to participating municipalities as per the agreement. Sends apportionment notice to mayors & selectmen.	
Joint control of marine fisheries	130:56	If two or more municipalities have joint property in, or joint control over, any marine fisheries, the city council or the selectmen may exclusively exercise authority over fisheries as though such joint control or property did not exist.	Selectmen, board of alderman or city council may control, regulate or prohibit the taking the shellfish within the city or town		Doesn't authorize joint action – rather allows exclusive control so long as residents of other communities get same rights & privileges
Joint boundary markers	42:4	Selectmen of contiguous towns required to erect permanent stone monuments at certain points of their boundary lines	Selectmen responsible for erecting boundary markers.	Expenses shared equally	42:6 provides for penalty for failure to mark

TYPE	CITATION	CREATION	GOVERNANCE	FINANCES	OTHER ISSUES
Regional housing authority	121B:3A	Operating agreement approved by municipal officers of cities and towns and Dept. of Housing and Community Development (DHCD)	Regional housing authority. Powers & obligations as set out in the operating agreement.	Appropriations by cities and towns – presumably based on operating agreement	See 121B:1 definition of municipal officers as city council with mayor's approval in city, selectmen with town manager's approval, if any, in town.

Title

**TERMS AND CONDITIONS OF AN INTER-MUNICIPAL AGREEMENT
BETWEEN THE TOWN OF _____ AND THE TOWN OF _____**

I. General Terms:

- A. State the names of each participating city and town
- B. Identify the effective date and term of agreement
- C. State the general purpose of the agreement
- D. State that costs will be shared
- E. State how municipalities may terminate participation (required)
- F. State how the agreement may be amended
- G. Acknowledge acceptance of liability under agreement
- H. Include a severability clause; identify applicable laws
- I. Provide addresses for official notices

II. Operations Terms and Conditions¹

- A. Describe services to be provided:
- B. Identify personnel or department to perform services
- C. Establish reporting relationship and successorship in shared department
- D. Specify where shared services, personnel or department will be located
- E. Establish lines of communication among participating municipalities
- F. Describe dispute resolution process

III. Finance Terms and Conditions

- A. Identify salaries, wages and benefits to be shared
- B. Identify operating expenses to be shared

¹ Excerpts taken from “Understanding and Applying the New Inter-municipal Agreement Law,” by Laura Schumacher, City & Town, Vol. 21, No. 10, December 2008.

- C. Address sharing of capital cost incurred prior to and after agreement date
 - D. Describe how each participant approves the shared budget
 - E. Describe how shared costs will be allocated
 - F. Describe payment methodology
 - G. Specify insurance and indemnification requirements
- IV. Provisions for Financial Safeguards Required by c.40, s.4A
- A. The HOST town must maintain accurate and comprehensive records of services performed, costs incurred, and reimbursements and contributions received;
 - B. The HOST town must arrange for the performance of annual audits of such records, which audits can be part of the HOST town's annual, independent audit of its financial statements.
 - C. The HOST town must ensure that all officers or staff responsible for carrying out the terms and conditions of this AGREEMENT shall give appropriate performance bonds.
 - D. The HOST town must provide the PARTIES with monthly expenditure reports and quarterly revenue reports and any other information reasonably requested by the NON-HOST town to present a complete picture of the financial condition of the shared department, function or position.
 - E. The PARTIES otherwise must to comply with all other provisions of M.G.L. c.40, s.4A.
- V. Signatures
- A. Provide lines for signature, titles and date of a city mayor and each city councillor, town board of selectmen and/or district prudential committee.

Chapter 4

Comparison of Bargaining Agreements

Prepared for the

Towns of Wenham and Hamilton, Massachusetts
And the Hamilton-Wenham Regional School District

October 2013

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**HAMILTON – WENHAM DPW
COMPARISON OF BARGAINING AGREEMENTS**

Topic	Hamilton	Wenham	Comments
Effective dates	7/1/2011 – 6/30/2014	7/1/2013 – 6/30/16	Hamilton’s agreement will expire soon, so can work to get agreements aligned.
Unit	Local 2905, Council 93, AFSCME	Local 2905, Council 93, AFSCME	
Positions	...full-time and regular part-time employees of the Department of Public Works including the Water Department, but does not include employees covered by other bargaining units; casual, seasonal or summer staff; independent contractors; managerial, confidential, or causal employees.	...all full-time and regular part-time employees... including the: Assistant Treasurer/Collector, Treasurer’s Assistant, Conservation Coordinator, Mechanic, Driver/Operator, Heavy Equipment Operator, Secretary/Matron, and Custodian, but excluding the Town Accountant, Treasurer/Collector, Administrative Assistant to the Board of Selectmen, and Highway/Water Department Foreman, and all managerial...	Hamilton is only DPW, while Wenham includes all employees, with some exceptions. In addition, Highway/Water Department Foreman is not part of this agreement.
Discrimination and coercion	No discrimination against protected classes or union members	No discrimination against protected classes or union members	Same intent, but slightly different language
Management rights	Nothing in this Agreement shall limit Town in exercise of its function of management and in direction/supervision of Town's business, e.g., add or eliminate departments; require/assign overtime; increase/decrease number of jobs; change process; assign work and work to be performed; schedule shifts/hours to work and lunch/break periods; hire; suspend; demote, discipline, or discharge for just cause; transfer/promote; layoff b/c lack of work or other legitimate reasons; establish rules, regulations, job descriptions, policies/procedures; conduct orderly operations; establish new jobs; abolish / change existing jobs; determine where, when, how and by whom work will be done; determine standards of proficiency; except where any such rights are specifically modified or abridged by terms of this Agreement. <i>Section includes series of bullets f rights, such as develop mission/vision, determine grades and</i>	...the Employer has the right to plan, direct and control the Employer’s operations and working force, to hire, transfer, promote, assign, and lay off employees, to demote, suspend, discharge, or take other disciplinary actions for just cause, to evaluate employees, to determine the hourly, daily and weekly schedules of employment, the work tasks and standards of performance, the right to assign tasks, to determine what work is to be performed, when it is to be performed, and by whom, and the extent to which it may have done things by its own equipment facilities and employees or by others, to make, administer and enforce work rules and regulations, to take whatever actions may be necessary to carry out its work in situations of emergency...	Intent of both is the same, but Hamilton appears to have stronger and clearer language.

Topic	Hamilton	Wenham	Comments
	<i>positions, etc.</i>		
Union dues – agency fees	w/written approval, Town agrees to deduct Union membership dues weekly from the pay. Employees who do not desire membership in Union shall, as a condition of employment, pay a service fee to Union commensurate w/cost of collective bargaining and contract administration	w/written approval, employer agrees to deduct Union membership dues...from the bi-weekly pay of each employee. Town will deduct fees as condition of employment, for those who do not authorize deduction of dues. If employee does not to authorize deduction, they must pay the fee directly to the union. No payment until probation completed.	Difference in pay period. Hamilton does not require employee approval to withdraw fees and does not exempt probationary employees
No strike clause	No strike of any kind whatsoever. If one starts, Union shall take every reasonable action to affect cessation	No strike of any kind whatsoever	Hamilton has requirement that Union take action if illegal strike starts
Discharge and discipline	following grounds: theft; gross misconduct; abusive treatment of fellow employees or public; misrepresentation on employment applications or other Town records; handling another employee's time card or other records; consumption of alcoholic beverages or drugs while working; being impaired or intoxicated while working as a result of consumption of alcohol or drugs; willful and deliberate destruction of or damage to Town supplies and equipment or other property; untimely arrival or departure from work; inappropriate use of sick days; failure to respond to call-outs. Right to discipline includes, but is not limited to: warning, probationary status, suspension w/o pay, demotion, and discharge.	None.	No equivalent language found in Wenham agreement.
Seniority and postings	Vacancies must be posted on a bulletin board for 5 workdays. If two or more employees bidding for same position and qualifications, experience and performance with Town are relatively equal, seniority shall be determining factor. Can bump to lower class during layoff if more senior and qualified.	Vacancies must be posted on a bulletin board for 7 calendar days. If internal, employer must choose among 3 most senior qualified applicants. Can bump to lower class during layoff if more senior and qualified.	Minor difference in posting dates and selection process.
Termination	(i) Resignation; (ii) discharge; (iii) overstaying by more than 1 day an authorized leave of absence w/o notification; (iv) continuation of layoff status for more 18 months; or (v) failure to answer recall from layoff notice w/in 10 days after notified by registered mail	If RIF, have recall rights for 2 years, with 1 week to accept recall	Difference in recall period – 18 months in Hamilton and 24 months in Wenham; difference in time to respond

Topic	Hamilton	Wenham	Comments
	to last address on file w/Town.		
Probationary period	1 year	6 months	
Grievance / arbitration procedure	1. Discuss grievance w/immediate supervisor (10 working days); 2. Present to dept head (10 days after #1); 3. Present to TM (10 days after #2); 4. Request arbitration through MA Dept of Labor Relations (20 days after #3). Arbitrator decision is final and binding.	Encouraged to take informal step. 1. Present to dept head (15 days); 2. Present to TA (15 days); 3. Request arbitration (30 days). Arbitrator selection in accord w/Am Arbitration Assoc. Arbitrator decision is final and binding.	Difference in timing, first step, and process for selecting an arbitrator
Hours of work	8 hours, ½ hour for lunch not included in 8; 7 am – 3:30 pm; 14 days' notice for change in shift; 20 min break in 1 st 4 hrs	8 hours which includes ½ hour paid lunch (total 7 ½ work hours); 7 am – 3:00 pm; 30 minute break; Notice required before changing shift (no time period specified)	Difference in length of work day. Longer break in Wenham
Meal periods	If work more than 6 hrs, get ½ hr lunch; \$10 meal allowance for every 4 hrs called out	After 5 hours snow plowing shall receive \$10 meal pay.	Wenham agreement is silent on break time during snowplowing
Compensation / Extra Time	OT is 1 ½ times rate. Comp time is prohibited, but flex time may be authorized; min 4 hours OT if called back; work b/t 5-7 am is OT; employee w/least overtime able to do work to be called 1 st , with some exceptions; During the period 11/26-3/24, shall be 1 employee w/hydraulic license and 1 truck driver on standby, \$175.00 standby pay per week in addition to OT; all employees will receive 15 weeks Snowplowing Standby Pay at \$175 per week.	OT is 1 ½ times rate. Employees who work extra hour(s), but not more than 40 per week, shall be granted comp time at 1:1. OT to be distributed equitably, first given to volunteers. If mandatory, shall be given in inverse seniority. Min 4 hours OT if called back, but if before shift and less than 3 hours, shall receive 3 hours OT. Standby pay in amount of \$175 (shall continue existing practice – not specified).	Some minor discrepancies. No comp time allowed in Hamilton, but OK in Wenham when total work is less than 40 hours. Unclear when Wenham receives standby pay b/c is not part of agreement.
Holidays	New Year's Day Martin Luther King Day Washington's Birthday Patriot's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day	Same, plus day after Christmas. Day after Thanksgiving and day after Christmas at discretion of Selectmen	One extra day in Wenham

Topic	Hamilton	Wenham	Comments																																				
Holiday pay	8 hours pay or less if normally paid less, at straight time rate, in addition to holiday pay, at 1 1/2 times regular rate for time up to 8 hours of work. Holiday pay for one shift only, except Xmas and Thanksgiving. If work on Xmas Eve (6:00 pm to Midnight), Xmas Day, Thanksgiving shall receive, in addition to holiday pay, 2x time for all hours worked.	Pay at 1 ½ time plus one extra day off	Wenham employees get extra day off, while Hamilton received payment																																				
Vacation	<table border="1"> <thead> <tr> <th>Yrs of Svc</th> <th>Days/Month</th> <th>Year Total</th> </tr> </thead> <tbody> <tr> <td>0 - 1 year</td> <td>0.42</td> <td>5 days</td> </tr> <tr> <td>1+ year</td> <td>0.833</td> <td>10 days</td> </tr> <tr> <td>5+ years</td> <td>1.25</td> <td>15 days</td> </tr> <tr> <td>10+ years</td> <td>1.67</td> <td>20 days</td> </tr> <tr> <td>20+ years</td> <td>2.00</td> <td>25 days</td> </tr> </tbody> </table> <p>One week carry forward allowed with approval of TM. Unless needs of Town dictate to contrary, seniority shall govern in selection vacation dates.</p>	Yrs of Svc	Days/Month	Year Total	0 - 1 year	0.42	5 days	1+ year	0.833	10 days	5+ years	1.25	15 days	10+ years	1.67	20 days	20+ years	2.00	25 days	<table border="1"> <thead> <tr> <th>Yrs of Svc</th> <th>Days/Month</th> <th>Year Total</th> </tr> </thead> <tbody> <tr> <td>0 - 1 year</td> <td></td> <td>0</td> </tr> <tr> <td>1+ year</td> <td>0.833</td> <td>10 days</td> </tr> <tr> <td>5+ years</td> <td>1.25</td> <td>15 days</td> </tr> <tr> <td>5-20</td> <td colspan="2">One additional day per year up to 20 days</td> </tr> <tr> <td>20+ years</td> <td colspan="2">One additional day</td> </tr> </tbody> </table> <p>After 6 months service, can take 5 days of vacation credited against 1 year's earnings. One week carryforward allowed approved by TA. For each 6 month period that do not use sick time, employee shall receive 1 additional vacation day</p>	Yrs of Svc	Days/Month	Year Total	0 - 1 year		0	1+ year	0.833	10 days	5+ years	1.25	15 days	5-20	One additional day per year up to 20 days		20+ years	One additional day		Hamilton increases in 5 day lumps, while Wenham increase by 1 day per year. Totals are the same. Wenham offers incentive not to use sick time
Yrs of Svc	Days/Month	Year Total																																					
0 - 1 year	0.42	5 days																																					
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Jury duty	Difference b/t jury duty pay and regular pay to be paid by Town	Difference b/t jury duty pay and regular pay to be paid by Town																																					
Sick leave	Accrue sick leave at rate of 1 ¼ days per month up to a max of 175 work days. If hired after 7/1/05, max will be 150 workdays. Sick leave w/o pay may be granted by TM to any temporary, part time or probationary employee. Any sick time taken for three (3) consecutive days may require a Dr.'s note. Sick leave buyback at end of service: 0-100 days = 25%; 100-175 days = 50%, except those hired after 7/1/05 is 100 to 150 days; if workman's comp, employee can use sick leave to make up difference	Accrue at 1 ¼ days per month; max of 180 work days; Dr note may be required (no minimum absence specified); if on workman's comp, Town will reimburse the difference until sick leave used; sick leave buy back (after 10 yrs service, 55+ yrs age) shall be paid at ½ of sick leave, but no more than 67.5 days.	Different max accrual; Wenham can require Dr note anytime (no minimum absence). Difference in buyback – Hamilton has no min years of service, but offers lower pay ratio when less than 100 days saved.																																				
Bereavement leave	5 days with pay due to each death of spouse / domestic partner or child(ren). 3 days with pay for absence for "other immediate family" living in	4 days with pay for immediate family (incl. spouse and child); 3 days for household member that is not immediate family; attendance at funeral for	Hamilton offers one additional day for spouse or child; Wenham offers attendance at funerals																																				

Topic	Hamilton	Wenham	Comments
	household	extended family	
Police protection	Town shall provide police protection when work is being performed on roads and jobs that are appropriate for police protection	None.	
Bulletin boards	Announcements shall be posted on the public works department garage bulletin board. Town notices must be signed by the Department Head or Town Manager.	Bulletin board shall be provided	Hamilton requires TM to approve postings
Clothing	Town will provide a full set of one week's worth of uniforms and cleaning services. Uniforms will be delivered and picked up on a weekly basis. Plus \$250 reimbursement for safety boots.	\$700 per year	
Personal leave	3 paid personal days	3 paid personal days, only for imperative personal business, 48 hours' notice, 2 hour increments minimum	Greater restrictions in Wenham
Health and accident insurance	HMO Blue or equivalent, employees pay 25% of and Town pays 75%	GIC insurance, employees pay 25% of and Town pays 75%; life insurance (Boston Mutual) at 40% employee and 60% Town; life insurance (AETNA) at 50:50	
Licenses	Town pays for licenses, renewals, and required classes	Will reimburse for any license	Hamilton pays for classes
Longevity bonus	7 - 10 years of continuous service - \$600 More than 10 years of continuous service - \$900	At least 5 years - \$300 At least 10 years - \$400 At least 15 years - \$500 At least 20 years - \$600	Higher payment in Hamilton, although starts 2 years later
Temporary assignment		If assigned higher job, shall be paid higher rate	
Other		FMLA and Military Leave written into agreement	

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Chapter 5

Preliminary Implementation Plan
Regional Infrastructure Department

Prepared for the

Towns of Wenham and Hamilton, Massachusetts
And the Hamilton-Wenham Regional School District

February 2014

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HAMILTON-WENHAM-HWRSD REGIONAL INFRASTRUCTURE DEPARTMENT

Alternative 6: Combine All Public Works-Related Functions

PRELIMINARY IMPLEMENTATION PLAN

Goal	Action	Responsible Parties	Timeline
Reach out to members of the public and other stakeholders to gather input into the proposed consolidation	Identify stakeholders.	Steering Committee	February 2014
	Schedule meetings with internal stakeholders (department directors, principals, recreation department, DPW employees)	TA, TM, and Superintendent	February 2014
	Schedule meeting with union representatives	TA, TM, and Superintendent	March 2014
	Schedule meetings with elected officials	Steering Committee	February –April 2014
	Schedule meeting with finance committees	Steering Committee	February –April 2014
	Schedule public meetings for residents and business persons	Steering Committee	April – May 2014
	Schedule meeting(s) with customers (sports leagues, recreation department)	Steering Committee	April – May 2014
Prepare draft inter-municipal agreement	Determine services to be consolidated and sequence / timing	Steering Committee	April – May 2014
	Finalize management structure and organizational chart	Steering Committee	May – July 2014
	Finalize governance structure (e.g., meeting schedule, communication mechanisms)	Steering Committee	May – July 2014
	Develop operating standards / performance measures	Steering Committee	June – August 2014
	Prepare inventory of assets to be contributed (e.g., vehicles, equipment, facilities) and value	Consultant, finance directors	June – August 2014
	Develop methodology for budget/cost allocation (operating and capital budget); how do capital plans influence operating budget??	Steering Committee	August – September 2014

HAMILTON-WENHAM-HWRSD REGIONAL INFRASTRUCTURE DEPARTMENT

Alternative 6: Combine All Public Works-Related Functions

PRELIMINARY IMPLEMENTATION PLAN

Goal	Action	Responsible Parties	Timeline
	Determine how shared costs will be allocated, including which town will provide support services	Steering Committee	August – September 2014
	Establish policies/requirements for accounting and financial safeguards	Steering Committee	August – September 2014
	Determine process to transfer staff; develop hiring process for future positions/vacancies (e.g., titles, job descriptions, pay rate, seniority, retirement, etc.)	Steering Committee	August – September 2014
	Establish dispute resolution process	Steering Committee	August – September 2014
	Develop process/methodology for discontinuing the agreement	Steering Committee	August – September 2014
	Submit draft agreement to legal counsel for review and approval as to form and legality	TA, TM, and Superintendent	September 2014
Confer with relevant bargaining units	Schedule meeting with union representative(s)	TA, TM, and Superintendent	March 2014
	Review differences between existing agreements (see Collins Center report)	TA, TM, and Superintendent	May – July 2014
	Discuss provisions for new department	TA, TM, and Superintendent	August – September 2014
Secure approval of agreement from legislative bodies	Schedule meetings of Boards of Selectmen and School Committee	TA, TM, and Superintendent	October 2014
	Secure approval from State legislature to create new municipal entity	Boards of Selectmen, School Committee, Steering Committee	2015 legislative session
Implement the agreement	Secure funding for asset management and work order system	Boards of Selectmen, School Committee	June 2014
	Develop specifications for asset management and work order system	TA, TM, and Superintendent	May – June 2014

HAMILTON-WENHAM-HWRSD REGIONAL INFRASTRUCTURE DEPARTMENT

Alternative 6: Combine All Public Works-Related Functions

PRELIMINARY IMPLEMENTATION PLAN

Goal	Action	Responsible Parties	Timeline
	Select vendor for asset management and work order system	TA, TM, and Superintendent	July 2014
	Establish department director position (e.g., title, job description, pay rate) and recruit for position	TA, TM, and Superintendent	After new entity has been approved by legislature
	Determine financial system to be used; secure additional licenses	TA, TM, and Superintendent	After new entity has been approved by legislature
	Establish separate "entity" within financial system (do <u>not</u> allow transfers between different entities)	TA, TM, and Superintendent	After new entity has been approved by legislature

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ABOUT THE CENTER

The Edward J. Collins, Jr. Center for Public Management in the McCormack Graduate School of Policy and Global Studies at the University of Massachusetts Boston was established in 2008 to improve the efficiency and effectiveness of all levels of government. The Center is funded by the Commonwealth and through fees charged for its services.



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