

**Town of Enfield, Connecticut**  
**Public Works Organizational Effectiveness**  
**and Efficiency Study**

*Project Report*

**August 2018**



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August 6, 2018

Mr. Jonathan Bilmes  
Director of Public Works  
Town of Enfield  
40 Moody Road  
Enfield, CT 06082

Dear Mr. Bilmes:

We are pleased to provide you with the project report of our Organizational Effectiveness and Efficiency Study of the Public Works Department. This report includes recommendations designed to enhance the ability of the Department to meet both the short and long-term needs of the Town of Enfield and improve the overall effectiveness and efficiency of the Department.

The recommendations contained in this report are based on the input and information provided by Town staff as well as identified industry standards and best practices that are appropriate for the Town of Enfield. The Town is fortunate to have dedicated employees who are committed to providing excellent services to the community, and their participation in this process was open and constructive. We are confident that these recommendations can serve as a framework for improving operational and managerial performance.

Thank you for the opportunity to work with the Town of Enfield.

Sincerely,

A handwritten signature in black ink that reads "Julia D. Novak". The signature is written in a cursive, flowing style.

Julia D. Novak  
President

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# Table of Contents

<b>Executive Summary .....</b>	<b>1</b>
<b>Background and Methodology .....</b>	<b>4</b>
<b>Public Works Department Overview .....</b>	<b>6</b>
<b>Analysis and Recommendations.....</b>	<b>9</b>
Leadership and Management .....	9
Proactive Work Planning.....	14
Staffing and Operations .....	19
Custodial Services .....	20
Refuse and Resource Management .....	21
Buildings and Grounds Maintenance .....	24
Highway Maintenance .....	25
Fleet Management.....	26
Water Pollution Control.....	29
Revenue Opportunities .....	33
Support Services .....	36
<b>Conclusion .....</b>	<b>39</b>
<b>Appendix A: Benchmarking Research Summary .....</b>	<b>41</b>
<b>Appendix B: Core Services Matrix .....</b>	<b>45</b>
<b>Appendix C: Proposed Organizational Structure.....</b>	<b>49</b>

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## Executive Summary

The nature of the work completed by public works departments requires a unique approach to customer service. To truly serve the community, departments must not only be responsive to emergency issues and requests for service from the public, they must also be good stewards of public infrastructure and work to complete the necessary preventative maintenance to maintain the maximum useful life of public infrastructure. Essentially, good customer service from a public works department involves achieving a balance between these two often competing facets of effective infrastructure management. If a department focuses only on its stewardship role and is not responsive to requests, the public will not feel that their government is responsive. Yet if a department focuses only on reactive maintenance, the long-term maintenance requirements of community assets will be neglected at compounded expense. The Town has made a strong commitment to capital investment with a five-year capital investment plan totaling over \$20 million. The most important mechanisms available to maximize the utility of this investment is to focus on a proactive maintenance program for Town infrastructure. The fundamental challenge confronting the Public Works Department is that that crews are primarily focused on reactive maintenance at the expense of proactive preventative maintenance.

A number of factors contribute to this issue. First, the work planning and prioritization process is informal and highly decentralized. Work is often assigned on a daily basis as a response to resident complaints rather than a structured, preventative work plan. Second, the Department's management structure limits its ability to integrate work planning and asset management under a single operational authority. Each program area manager (e.g., Fleet, Facilities) is responsible for their unit's own work planning; there is no central manager overseeing the coordination, prioritization and delivery of all operating programs. This impedes the Department's ability to effectively prioritize total asset management over reactive maintenance. It also involves the Public Works Director in daily operational issues, which limits the position's ability to engage with broader strategic challenges. Third, the Department does not have useful access to technology and work order systems that will support proactive, efficient work planning. And lastly, there are some program areas where staffing constraints limit the Department's ability to effectively meet preventative maintenance demands. For example, there is a clear need to add personnel in the building maintenance function to ensure that sufficient preventative maintenance can be completed to maximize the useful life of facilities assets.

The recommendations offered in this report are designed to address these fundamental challenges and build the systems that will enable the Department to adopt a more intentional and long-term approach to work planning, asset management, and service delivery. The recommendations also outline best practices and process improvements that will serve to generate additional staff capacity and enhance public service delivery. It is important to note that some of these recommendations will require investments. Implementing the recommendations in this report will cost an estimated \$566,500. However, many cost-saving measures have also been recommended and, while the actual savings realized will depend on decisions made by the Department and the Town during implementation, the total estimated savings is greater than the cost of implementing all of the recommendations.

The following table summarizes the recommendations included in this report.

**Table 1: Summary of Recommendations**

#	Recommendation Title
<b>Leadership and Management</b>	
1	Reclassify Assistant Director position as Deputy Director – Operations and consolidate all operations functions under this position.
2	Reclassify Deputy Director position as Deputy Director – Capital Projects and Administration and consolidate all administrative and capital planning functions.
3	Establish a practice of routine interaction between the Director and front-line personnel.
<b>Proactive Work Planning</b>	
4	Develop preventative maintenance plans for infrastructure assets maintained by the Department.
5	Implement a performance management system within the Public Works Department.
6	Implement a work order system to track and assign work.
7	Implement a service request system to track complaints and requests.
<b>Staffing and Operations</b>	
<b>Custodial Services</b>	
8	Convert 11 part-time Custodian positions into three full-time Custodian positions.
<b>Refuse &amp; Resource Management</b>	
9	Modify collection schedule to more efficiently deploy Refuse and Resource Management resources.
10	Expand cross-training of employees to support highway, building, and grounds maintenance operations and create a Complaint Response Team.
<b>Buildings &amp; Grounds Maintenance</b>	
11	Staff Building Maintenance function so preventative maintenance is completed.
<b>Highway Maintenance</b>	
12	Update snow plan to clarify service level expectations, document operations, and host annual refresher training.
<b>Fleet Management</b>	
13	Convert one Lead Mechanic position to a Parts Manager position.
14	Increase security of the Fleet Management Division's work area.
15	Incorporate input of user departments into vehicle and equipment purchasing decisions.
16	Begin charging customer departments the full cost of vehicle maintenance.
<b>Water Pollution Control</b>	
17	Adopt new deployment approach and begin completing preventative maintenance on both the WPC Plant and the sewer collection system.
18	Implement a single shift, 10-hour schedule for Water Pollution Control operations.
19	Create a Laboratory Technician position.
20	Hire a seasonal employee to mow the WPC Plant and pump stations.
21	Revise the seasonal hiring process to accommodate a June 1 start date each year.
22	Clarify role of the WPC Superintendent.
<b>Engineering</b>	
23	Consider creating a pool of in-house house construction inspectors.
<b>Revenue Opportunities</b>	
24	Evaluate opportunities to generate additional revenue from solid waste services.

#	Recommendation Title
25	Adopt a transfer station cost recovery goal.
<b>Support Services</b>	
26	Expand the purchasing and human resources management responsibilities of the Business Operations Manager.
27	Develop service level agreements to outline purchasing, human resources and information technology services performance expectations.

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## **Background and Methodology**

In February 2018, the Town of Enfield retained The Novak Consulting Group to conduct an Organizational Effectiveness and Efficiency Study of its Public Works Department. The purpose of this study was to assess the efficiency and effectiveness of Department operations relating to workload, staffing, customer service, scheduling, productivity, use of technology, and the supervisory structure of functional areas. Initially the scope of the project did not include the Water Pollution Control (WPC) Division. However, in May 2018, the scope was expanded to include the WPC operation.

The Novak Consulting Group conducted individual interviews with Department staff as well as staff from those Town departments that work closely with the Public Works Department, including Human Resources, Finance/Purchasing, and Information Technology. In total, more than 25 individual interviews were conducted and seven focus groups were facilitated. In total, The Novak Consulting Group completed confidential interviews with over 50 department personnel in each program area. These interviews were conducted without the presence of managers and supervisors to engender a free and honest exchange. The Novak Consulting Group also completed benchmarking research with nine comparison communities in the region, the results of which are included in Appendix A.

Additionally, The Novak Consulting Group requested and received data from the Department related to its structure, operations, practices, procedures, and workload. This information was analyzed to identify the Department's service demands and service standards and to determine opportunities for enhancing the efficiency and effectiveness of the Department.

The Novak Consulting Group also worked closely with Town staff to develop a Core Services Matrix that summarizes the services currently provided by each division. The Core Services Matrix is included as Appendix B to this report, and is a tool the Department can use in determining the desired mix and levels of service. Once service level expectations have been established, divisions will need appropriate resources to meet those expectations.

## Public Works Department Overview

The mission of the Public Works Department is to “provide and preserve our Town’s infrastructure, facilities, and programs and to promote public health, safety, and welfare through courteous and timely customer service and efficient use of available resources.”

The Public Works Department consists of eight divisions:

- The **Administration Division** provides the Department with overall direction and support. The Division is responsible for establishing and updating Department policies and procedures and managing the Department’s personnel and budget. The Division is supported by eight full-time employees, which includes the two employees in the Roads/Engineering unit.
- The **Roads/Engineering unit** is responsible for the design, procurement, and construction oversight of road, sidewalk, parking lot, and drainage system construction, reconstruction, and preservation projects. In addition, the Division is tasked with reviewing development plans and road cut and driveway permit applications. The Division is led by an Assistant Town Engineer and staffed with two full-time road engineers.
- The **Custodial Services Division** is responsible for cleaning 25 Town-owned buildings (municipal and school). The Division’s 55 full-time and 11 part-time employees are responsible for cleaning a total of 1,401,714 square feet.
- The **Building and Grounds Maintenance Division** is charged with maintaining 400 acres of public parks and 54 athletic fields, 14 playgrounds, and other public outdoor spaces. The building maintenance function is responsible for all maintenance, repair, construction, and reconstruction activities in all Town-owned facilities as well as winter maintenance of all public facilities and parking lots. The Division is staffed by 23 full-time employees.
- The **Highway Maintenance Division** is tasked with maintaining 182 road miles (372 lane miles) of public ways and stormwater control infrastructure, including 5,000 catch basins. In addition, the Division mows rights of way, maintains public trees, maintains 3,700 streets lights, and provides snow and ice treatment and removal services. The Division is supported by a staff of 11 full-time employees.
- The **Resource and Refuse Management Division** is responsible for the Town’s curbside solid waste collection, yard waste collection, and recycling programs. In addition, the Division maintains a transfer station and a leaf composting facility. The Division is staffed by 20 full-time employees.
- The **Fleet Management Division** maintains a total of 444 vehicles and pieces of equipment, purchases new vehicles and equipment, and manages the equipment disposal process. In addition, the Division manages three fueling stations. The Division is supported by eight full-time employees.
- The **Water Pollution Control Division** maintains and operates the Town’s sanitary sewer system, including 250 miles of sewer pipe, 16 pump stations, and a 10 million-gallon-per-day (MGD) capacity wastewater treatment plant. The Division is staffed by 13 full-time employees.

The following figure shows the Department’s current organizational structure.

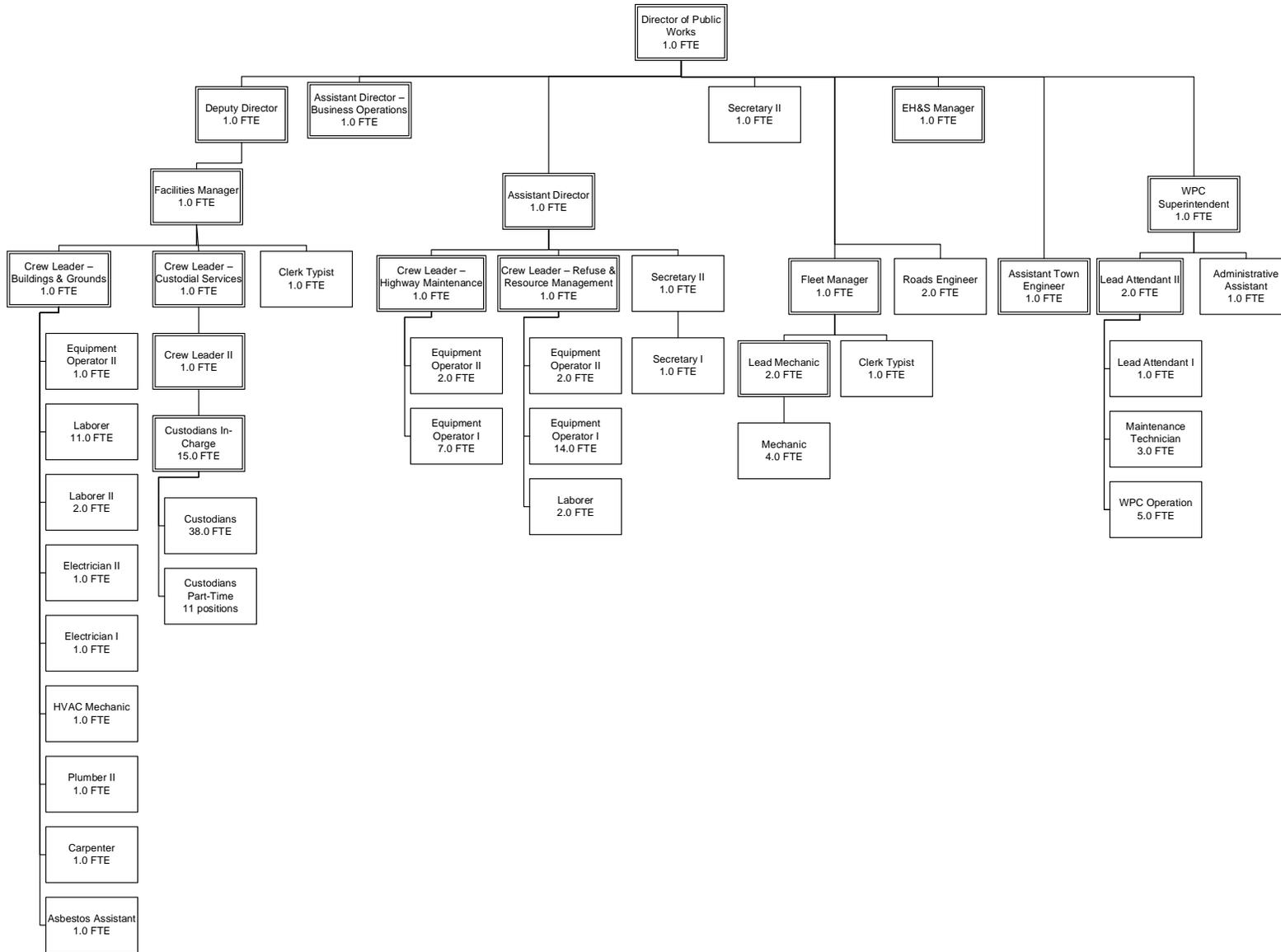


Figure 1: Public Works Department Organizational Structure

The staffing level of the Department has been relatively constant for the last five fiscal years, only increasing by a total of 1.0 FTE (0.5 FTE in the Building and Grounds Maintenance Division and 0.5 FTE in Custodial Services Division). The following table shows the historical staffing level of each division.

**Table 2: Public Works Department Historical Full-time Staffing, By Division, FY2014 - FY2018<sup>1</sup>**

Public Works Division	FY2014 Actual	FY2015 Actual	FY2016 Actual	FY2017 Revised	FY2018 Budget	Percent Change
Administration and Roads/Engineering	8.0	8.0	8.0	8.0	8.0	0%
Building and Grounds Maintenance	22.5	21.5	23.0	23.0	23.0	2%
Custodial Services	54.5	54.5	56.0	55.0	55.0	1%
Highway Maintenance	11.0	11.0	11.0	11.0	11.0	0%
Refuse and Resource Management	20.0	20.0	20.0	20.0	20.0	0%
Fleet Management	8.0	8.0	8.0	8.0	8.0	0%
Water Pollution Control	13.0	13.0	13.0	13.0	13.0	0%
<b>TOTAL</b>	<b>137.0</b>	<b>136.0</b>	<b>139.0</b>	<b>138.0</b>	<b>138.0</b>	<b>1%</b>

For FY2018, the Public Works Department has a total budget of \$35 million (\$31 million General Fund and \$4 million Water Pollution Control Fund). Over the last five years, the Department's budget has increased by \$1.8 million (or 9%). During this period, the budget of the Water Pollution Control Division increased by the largest amount (\$1,092,883 or 36%)<sup>2</sup>, followed by the Fleet Management Division (\$743,864 or 17%) and the Custodial Services Division (\$388,443 or 9%). Only the Building and Grounds Maintenance Division's budget decreased during this period (by \$343,296 or 6%). In addition, the Department has managed over \$50 million in capital expenditures from 2014 through 2018. The following table includes the historical operating expenditures of each Public Works Department.

**Table 3: Public Works Department Historical Expenditures, By Division, FY2014 - FY2018**

Public Works Division	FY2014 Actual	FY2015 Actual	FY2016 Actual	FY2017 Revised	FY2018 Budget	Percent Change
Administration and Roads/Engineering	\$643,030	\$660,720	\$690,431	\$751,799	\$749,795	17%
Building and Grounds Maintenance	\$5,492,834	\$5,756,149	\$5,357,329	\$5,555,227	\$5,149,538	-6%
Custodial Services	\$4,163,297	\$4,040,299	\$4,425,041	\$4,678,530	\$4,551,740	9%
Highway Maintenance	\$1,864,088	\$2,302,016	\$1,838,309	\$2,217,815	\$1,909,067	1%
Fleet Management	\$1,150,780	\$1,173,957	\$1,245,998	\$1,353,250	\$1,344,007	17%
Refuse and Resource Management	\$3,180,013	\$3,042,071	\$3,214,798	\$3,249,987	3,533,760	10%
Water Pollution Control	\$3,019,239	\$3,373,280	\$3,463,900	\$4,075,928	\$4,112,122	36%
<b>TOTAL</b>	<b>\$19,513,281</b>	<b>\$20,348,492</b>	<b>\$20,235,806</b>	<b>\$21,882,536</b>	<b>\$21,350,029</b>	<b>9%</b>

<sup>1</sup> Does not include part-time or seasonal employees

<sup>2</sup> This increase is primarily due to increases in the Fund Transfers, Water/Sewerage, and Equipment Repair and Maintenance line items. Personal services expenditures increased steadily each year, but positions were not added.

## Analysis and Recommendations

The Public Works Department is tasked with maintaining the condition of the Town's infrastructure and providing core services, such as snow removal, refuse collection, and sewage treatment to Town residents, business owners, and visitors. This mandate requires a structured, proactive approach to preventative maintenance as well as a responsive and timely approach to emergency issues and citizen requests. The work planning and prioritization process in the Town of Enfield has evolved to place priority emphasis on reactive maintenance – responding to citizen requests or issues – often at the expense of planned, preventative maintenance activities.

When scheduled maintenance is not completed, the risk of asset failure and the number and complexity of repairs increases, as well as the cost to address issues when assets reach the point of failure. Further, as staff spend more time on reactive repairs, the time available to complete preventative maintenance decreases and increases the rate of asset deterioration. Reversing this trend to place greater emphasis on preventative maintenance and work planning is the most significant improvement that can be made in the Public Works Department.

To successfully exit this reactive cycle, the Department will need to be intentional and strategic about how it prioritizes preventative maintenance and reactive work. It will therefore be necessary to shift the definition of customer service from one that is solely focused on responsiveness to one that includes a focus on long-term stewardship of public assets. The recommendations included in this report focus on addressing the most pressing issue facing the Department – the reactive approach to planning and executing work – as well as increasing the efficiency and effectiveness of operations in general. The recommendations are presented in the following categories:

- Leadership and Management
- Work Planning and Tracking
- Custodial Services
- Refuse and Resource Management
- Buildings and Grounds Maintenance
- Highway Maintenance
- Fleet Management
- Water Pollution Control
- Cost Recovery
- Support Services

### Leadership and Management

One of the most important adjustments to enhance proactive asset management in the Town is to create additional management capacity and operations expertise in the organization. Currently, each program area manager (e.g., fleet manager, Highway Maintenance Crew Leader) is responsible for work planning and prioritization in their program area. They often field calls directly from the public and elected officials for emergency repairs and citizen requests and have the discretion to reallocate personnel to address issues. However, the Department does not have an operations manager to unify and integrate the work of each unit into a broader asset management approach and guide the prioritization and triage of reactive and emergency repairs. This task is instead left to the Director of Public Works, who must balance this demanding task with broader strategic and management responsibilities. To address this issue, it is

necessary to reorganize the management structure of the Department to place a greater emphasis on operations.

**RECOMMENDATION 1: Reclassify Assistant Director position as Deputy Director – Operations and consolidate operations functions under this position.**

Currently, operating programs are organized under multiple managers without a single manager to integrate asset management and planning. The Buildings and Grounds and Custodial Services Divisions report to a Facilities Manager who reports to the Deputy Director. The Highway Maintenance and Refuse and Resource Management Divisions report the Assistant Director. The WPC Division reports to the Public Works Director and the Fleet Management and Roads/Engineering Units are standalone divisions. While daily supervision of the operations functions (such as scheduling and daily work assignments) is currently handled by each division's Crew Leader, higher-level management responsibilities (such as long-term work planning and prioritization) are spread across multiple positions. The Facilities Manager and Deputy Director provide management support to the Buildings and Grounds Maintenance and Custodial Services divisions, the EH&S Manager<sup>3</sup> provides support to all divisions and the Assistant Director provides management support to the Highway Maintenance and Refuse and Resource Management divisions, and the Director provides management support to the Fleet Management Division while also directly supervising the Deputy Director, EH&S Manager, Assistant Town Engineer, and Assistant Director.

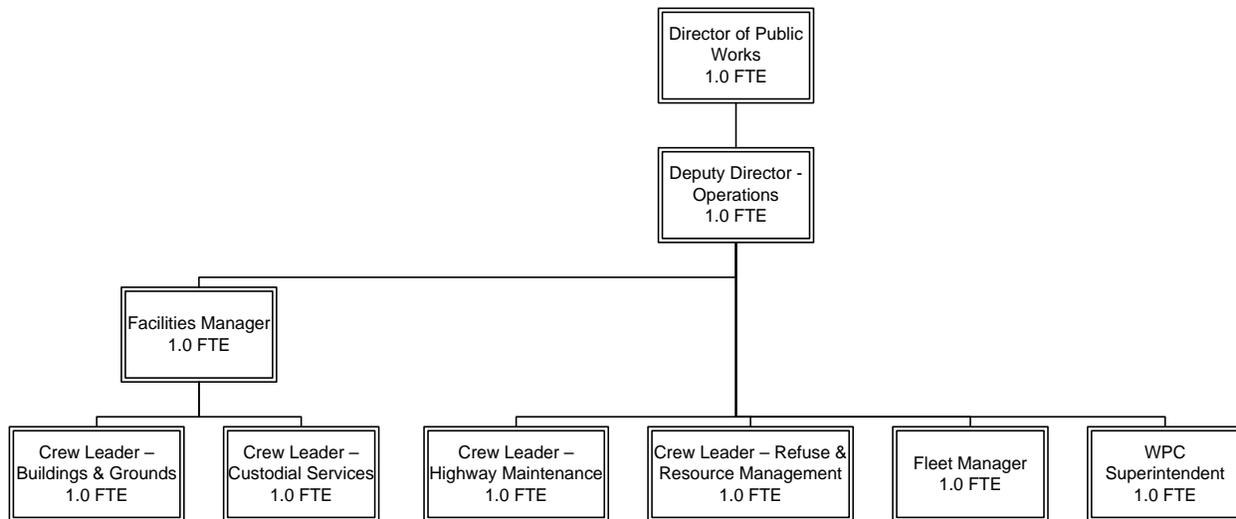
Spreading management responsibilities across multiple positions has resulted in several issues. First and foremost, long-term asset management plans have not been developed for most<sup>4</sup> asset types and critical preventative maintenance activities are not being completed on schedule. Instead, crews are spending a significant portion of their time responding to requests and complaints, all of which are treated as urgent because the authority to prioritize or push back on unreasonable requests is either dispersed or not granted at all. Additionally, the operations divisions, with the exception of the Highway Maintenance and Refuse and Resource Management divisions which began sharing resources in 2012, are generally functioning in a siloed manner with limited communication and collaboration. Finally, the current structure results in minor issues being escalated to the level of the Director of Public Works, which is an ineffective and inefficient use of that position's time and attention.

To address these issues, it is recommended the Department consolidate management of the operations functions by reclassifying the Assistant Director position as a Deputy Director – Operations position and assigning management responsibility for the six operations divisions to this new position. The following figure shows the recommended organizational structure.

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<sup>3</sup> It should be noted that the EH&S Manager position is currently vacant.

<sup>4</sup> Fleet and pavement maintenance are exceptions.



**Figure 2: Proposed Organizational Structure of New Operations Function**

Reclassifying the Assistant Director as Deputy Director – Operations and assigning operations divisions to this new position will positively impact the Department in several important ways. First, the Deputy Director – Operations will oversee the development of each division’s annual work plan, ensuring the Town’s infrastructure assets are maintained and adopted service level expectations are achieved.

Second, the consolidation of all operations functions under one manager will equip that individual with the perspective necessary to prioritize activities and strategically deploy valuable resources across the divisions. In addition, by selecting an individual with significant public works operations experience, this position will fill a knowledge and experience gap that currently exists in the Department’s management structure.

The Deputy Director – Operations will also play an important role in troubleshooting issues, particularly those related to customer service complaints, special projects, and unusual circumstances. As has previously been stated, many divisions struggle to complete essential activities because crews are constantly responding to requests and complaints. Requests should be evaluated, prioritized, and resolved by Crew Leaders with the guidance of the Deputy Director – Operations, maintaining appropriate communication and consultation with the Director. This enables divisions to deliver on their work plan and also prevents minor issues from rising to the Director’s level while keeping the Director apprised of major issues and concerns that could impact the Department’s services or involve other entities such as the Town Council. By serving as a gatekeeper for customer relations activities and exercising appropriate discretion, the Deputy Director – Operations will be able to address customer and community concerns in a timely and efficient manner.

In addition to being responsible for managing the operations functions, the Deputy Director – Operations will serve as an assistant to the Director. This employee will have experience managing the operational aspects of the Department, and therefore will be able to provide overall management support to the Department as needed in the absence of the Director. The person in this role must understand the various functions of each section and must also have strong communications and management abilities. Having a strong second-in-command will increase continuity within the organization, free the Director to focus on

higher-level management issues, and increase communication within the organization. This position can also address future succession planning concerns.

When recruiting for this position, it is important for the Town to identify candidates with relevant experience in public works functions. The Deputy Director – Operations will be heavily involved in all operational aspects of these functions, and the candidate must have sufficient experience that will allow them to step into the position with a complete understanding of the work and the management issues involved in supervising staff. It is estimated that implementing this recommendation will cost an additional \$5,000 per year.

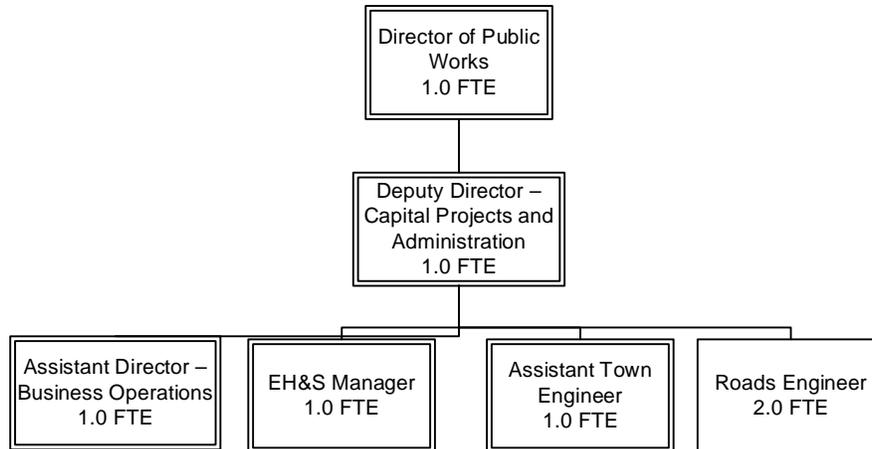
**RECOMMENDATION 2: Reclassify Deputy Director position as Deputy Director – Capital Projects and Administration and consolidate all administrative and capital planning functions.**

Implementation of the previous recommendation will consolidate the operations functions under one management structure, leaving the Deputy Director, EH&S Manager, Assistant Director – Business Operations, and Engineering/Roads Division outside of the newly consolidated operations function.

Currently, the Department’s administrative and capital planning responsibilities are spread across the Department. The Deputy Director position has been tasked with developing long-range plans for Town-owned buildings (as a representative on the Joint Facilities Committee) and other special projects in addition to providing direct supervision of the Facilities Manager and Assistant Director – Business Operations positions. The Assistant Director – Business Operations position provides budget, accounting, purchasing, and HR support throughout the Department. The EH&S Manager position is responsible for ensuring the Department is in compliance with applicable environmental, health, and safety regulations. The Roads/Engineering Unit is tasked with planning and implementing capital projects. Several administrative support positions are spread throughout the Department. In addition, the Director is closely involved in many of these activities.

Under the current structure, several core administrative functions are either not being completed at the necessary level or are not coordinated across the Department: a strategic plan that sets the direction for the Department has not been developed; performance measures are not in place to track progress; employee performance evaluations are not being completed; and internal services, such as HR, procurement, and IT, for which the Town has adopted a decentralized approach, are handled in a further decentralized manner within the Department.

It is recommended that the Department consolidate the capital projects and administration functions by reclassifying the Deputy Director position as a Deputy Director – Capital Projects and Administration and assigning the Assistant Director – Business Operations, EH&S Manager, and Roads/Engineering Unit to this position. The following figure shows the recommended structure.



**Figure 3: Proposed Organizational Structure of the New Capital Projects and Administration Function**

In addition, as Town assets are inventoried and preventative maintenance work plans are developed for each asset type, it may become clear that dedicated capacity is necessary to aid in the development and implementation of an effective asset management program including the development of performance measures and systems to track progress. Because of the quantity and size of the facilities maintained by the Department, a large part of the workload of such a position would relate to facility management. As such, it would be appropriate to eventually reclassify the Facilities Manager position as Asset Manager and assign it to the Capital Projects and Administration function. This transition should occur within a two-year period and the current occupant of the Facilities Manager position should be tasked with documenting and developing building and mechanical inventories and preventative and historical maintenance practices so that the Asset Manager position can effectively develop a comprehensive asset management plan.

**RECOMMENDATION 3: Establish a practice of routine interaction between the Director and front-line personnel.**

The Director of Public Works position is a complex role, requiring dual concentrations – external and internal. The position must focus on building relationships, achieving results, and managing the present while preparing for the future. The Director of Public Works should be focused on providing the Department with strategic leadership, particularly regarding its annual budget, staffing practices, goal setting, performance management, and balancing of Town Council priorities, to ensure the Department achieves its goals while providing consistent and quality services. However, the current organizational structure relies on the incumbent to dedicate significant attention to the routine, daily operations of the Department.

The structural changes included in the previous recommendations will address the unsustainable demands being placed on the Director of Public Works. While this is a necessary change, it may also create hierarchical distance between the Director and front-line employees. Such distance can translate into a perception that the interests of the Department are not appreciated, understood, and advocated for to Town leadership and management. While perceptions may not be accurate, they are the reality experienced by employees and it would be prudent for Department leadership to develop and implement a plan for proactive engagement with front-line employees and supervisors to compensate for the space created under the new structure. This can comprise a number of characteristics, including:

- **Physical Presence and Availability** – Making a conscious effort to visit all Divisions on a regular basis. The layout of the Town’s Public Works functions poses a challenge. Functions are spread across multiple facilities and the Director is often sequestered behind locked doors in a corner of the Public Works facility or in meetings at Town Hall, so it requires some planning to ensure that every Division is visited at least once a week. It is also recommended that the Town explore physical office modifications that would allow employees more direct physical access to management.
- **Know Staff by Name** – The Department consists of over 100 employees. Some individuals are blessed with the gift to be able to remember people’s names, and others are not. However, one of the most significant impacts a leader can have on an individual employee’s experience is to recognize and acknowledge the individual. Effort should be made to learn the names of employees and to engage with them informally upon contact in the hallways, in the field, or in the community.
- **Field Appearances** – The Director can begin to periodically visit employees in the field for brief times – during winter weather event shift changes for example. This not only demonstrates presence and support for employees but provides an opportunity for the Director to experience the work being done by Town of Enfield Public Works Department employees. This type of engagement is also an opportunity to make line employees feel as though their work is noticed and appreciated.
- **All-Staff Meetings** – Holding recurring all-staff meetings provides an avenue for connection and two-way information sharing. Routine all-staff meetings offer an opportunity for the Director of Public Works to clarify the vision, ensure everyone is moving in the same direction, and give consistent information regarding Department-wide issues.

These are a few examples of what can be done, with minimal effort, to advance perception of engagement in the organization. However, it is also important to note that the roles and expectations of the Director of Public Works are also fundamentally different than those of a front-line employee.

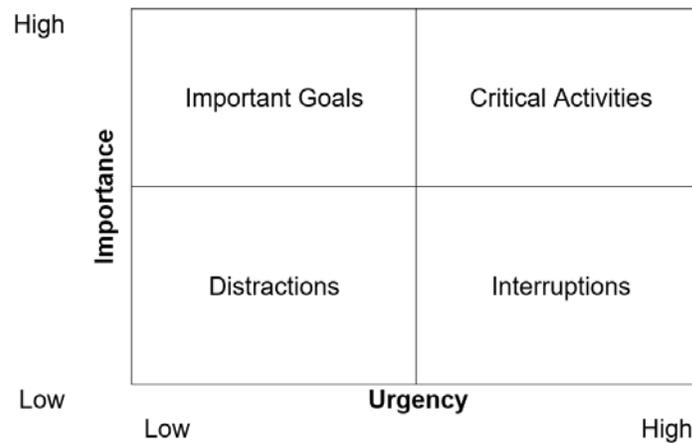
## Proactive Work Planning

The Public Works Department currently provides a wide range of services. An inventory of current services and corresponding service levels, or “Core Services Matrix” was developed in consultation with the Department and is included in Appendix B.

In an attempt to be responsive and provide quality customer service, the Department focuses on responding to all requests as they are received – and the Department receives many requests. For example, the Highway Maintenance Division responds to approximately 750 forestry, pothole, and sidewalk complaints in a given year. In addition, the Division responds to approximately 100 complaints of mailbox, lawn, and curb damage following snow events. This reactive approach to work planning means the Department’s priorities are dictated from the outside. As a result, many core preventative maintenance activities in the Core Services Matrix that include “as time allows” in the service level column may be delayed or not completed at all when more urgent requests arise. In addition, many activities are currently only completed “upon request” rather than proactively.

This method of prioritizing outside requests is not an uncommon phenomenon in organizations; it is referred to as the “urgent/important principle.” The urgent/important principle illustrates the issues that arise from such a reactive approach to work planning. According to the urgent/important principle, when

organizations and individuals prioritize their work based on urgency, only items that are urgent and of low importance or urgent and of high importance are completed; important goals (such as routine maintenance) are deprioritized. The following figure illustrates the urgent/important principle.



**Figure 4: Urgent/Important Matrix**

The result of this reactive approach to work planning is particularly concerning in public works departments where proper management of infrastructure assets requires proactive and consistent maintenance. The majority of the work done by public works departments should fall into the important goals category of the urgent/important matrix. When routine maintenance activities are delayed or not completed, the number of emergency repairs increases and absorbs more and more time that otherwise would have been spent completing preventative maintenance. Public works departments can get stuck in the vicious cycle of reactive maintenance which ultimately results in the quality of infrastructure assets declining. The following recommendations are focused on ensuring the Department is able to proactively maintain the Town's infrastructure assets.

**RECOMMENDATION 4: Develop preventative maintenance plans for infrastructure assets maintained by the Department.**

As previously stated, to keep infrastructure operational and to extend the life of valuable assets, maintenance is critical. Maintaining infrastructure assets involves both reactive and scheduled maintenance activities. Over time, the Public Works Department has fallen so behind on preventative maintenance that the bulk of the work completed by the Department is reactive or unscheduled.

To shift from a primarily reactive approach to a more proactive approach to maintaining the Town's assets, the Department must enhance its asset management program. Asset management is the practice of identifying infrastructure assets under the Department's control and tailoring maintenance activities, repair, and replacement to maximize the useful life of each asset.

The Roads/Engineering Unit has an inventory of Town streets and uses a standard condition assessment tool, the Pavement Condition Index (PCI), to monitor the condition of these assets and plan repair and replacement efforts. The Fleet Management Division has developed a vehicle replacement plan and has preventative maintenance schedules in place for each equipment type in the Town's fleet. Limited inventories and condition assessments have been completed for other Town infrastructure assets (facilities, playgrounds, signs, etc.).

The first step in developing an asset management program is to identify those routine activities that are required to keep each asset type functioning. This list of the necessary scheduled activities and the frequency with which they should be completed then becomes the organization's annual preventative maintenance work plan. The second step is to translate these plans into action and begin tracking progress so data-based decisions can be made regarding work prioritization and potential contracting of work that cannot be realistically achieved within the context of staffing and seasonal limitations.

**RECOMMENDATION 5: Implement a performance management system within the Public Works Department.**

As previously stated, the Department is challenged to provide quality ongoing services while also responding to urgent requests. It is management's role to prioritize and plan the work of employees, assist with eliminating roadblocks that emerge, and hold employees accountable for achieving their assigned goals. Department leadership can provide this support by implementing a performance management system within the Department.

A performance management system is a process tool utilized to ensure that the work of both employees and management is focused on the vision of the organization being served. Effective performance management systems ensure that employees focus their work in ways that directly support the organization's goals, priorities, and work plans. A performance management system typically consists of three core elements: (1) setting goals and creating work plans; (2) measuring performance against established performance goals; and (3) sustaining a dialogue between management and employees to ensure that the work of the organization is completed in conformance with established schedules.

The development of annual plans and targets for each division is a critical first step in implementing a performance management system. The basis for the work plans of the operations functions will be the preventative maintenance plans developed in the previous recommendation. Division work plans will focus and guide the Department's energy to successfully achieve long-term goals and targets. Developing annual work plans will enable the Department to meet the preventative maintenance needs of assets while also responding to special requests from the community. It is important to note that there will always be an expectation that crews will respond to complaints and urgent issues, but their work should not be completely determined by them. Annual work plans also clarify the service level expectations. Department management should then help supervisors plan the time of their crews by prioritizing activities and establishing expectations for how long various tasks should take. Crew Leaders will then be responsible for assigning tasks on a daily basis so as to complete the annual work plan and meet the service level expectations.

In the same way that Division work plans will focus and guide the Department's energy to successfully achieve the Department's goals, individual work plans focus and guide an individual's energy so they can best contribute to the achievement of the Department's goals. Individual work plans are directly linked to Division work plans. These documents serve to clarify expectations, for the benefit of both the Department and the employee. It is difficult to hold staff accountable when goals of the Department are ambiguous. An individual work plan serves as a contract between the employee and the manager, clarifying expectations and supporting accountability. It also forms the basis for annual employee performance reviews.

In addition to monitoring the work, a good performance management system instills discipline and enhances communication. Under such a system, managers meet with direct reports on a regular basis to review organizational performance. As the regularity and discipline of the management system becomes

integrated into operations, discussions about performance become focused on strategic issues. This type of management system allows managers to avoid total crisis management, as the rigor of the system helps ensure regular meetings to discuss strategic issues rather than the crisis du jour.

Currently, the Director of Public Works meets monthly with the Department's management team to share salient information and operational status updates from each of the respective areas of operation. Managers are then expected to share information with Crew Leaders, who disseminate information to front-line employees on a weekly basis. However, the current approach to communication can result in information not making its way to front-line employees and does not support information flowing up from front-line employees to management.

A sustained dialogue between management and employees can be achieved through three mechanisms. First, Crew Leaders should continue meeting with staff on a regular basis. Adequate communication does not simply involve management disseminating information to employees, it involves information traveling from management to employees and from employees to management. Two-way communication is critical for two reasons. First, line employees need a space in which to raise potential issues and surface suggestions. Second, management needs a space in which to solicit input from employees regarding policies, procedures, or projects; otherwise, when such input is not solicited, the result can be impractical, inefficient, or ineffective solutions. Having mechanisms in place to discuss issues, share information, and vet ideas from any level of the organization effectively multiplies the resources that an organization can draw upon to solve operational problems. For the Director of Public Works, it might be beneficial to attend, on a rotating basis, these routine meetings. This would provide the Director an opportunity to engage with employees in a manageable way and ensure that issues affecting front-line employees are elevated.

It is also important to emphasize that a commitment to follow-up is critical. It is unreasonable on the part of employees to expect every suggestion or idea to be implemented or for every decision to be made by committee. Management's responsibility is to determine the best course forward for the greatest good on any issue affecting the Department. However, it is a reasonable expectation for employees to understand the reasons behind a chosen course of action that impacts their work when the nature of the action and the attendant circumstances allow. This commitment to follow through is a necessary ingredient to make employees feel engaged and to develop trust in the communication process.

Second, the new Deputy Director – Operations should host a monthly staff meeting with a formal agenda that serves to address five key characteristics: 1) operations updates; 2) financial condition; 3) customer service/public relations; 4) special project updates; and 5) performance indicators. Those managers who report to the Deputy Director should be expected to replicate this approach with their staff. These are summarized here:

- **Operations updates** – Describe the status of current or pending projects for each Division. Effort should be made to discuss progress on the prior week's work plan, outstanding items and the plan to address them, and obstacles or challenges to success and the requirements to overcome those issues. This is also where Crew Leaders can share the concerns and issues front-line employees communicated during weekly crew meetings.
- **Financial condition** – On a quarterly basis, each Crew Leader should report the status of their operating budget and spending to date as compared to prior year's spending. Current or projected unanticipated expenses should be discussed and, if necessary, should be elevated to the Director

of Public Works for discussion. In addition, unanticipated cost overruns should be reported as they become evident.

- **Customer service/public relations** – Any current or projected issues that could affect the public, internal customers, Town Manager’s Office, or Town Council members should be discussed and a plan for communication with the appropriate parties should be established.
- **Special project updates** – Status updates on special projects should be reported during the weekly staff meeting.
- **Performance indicators** – On a quarterly basis, each Crew Leader should report the progress of executive level performance measures for their crew. Executive level performance measures are high-level indicators of program outcomes and costs compared to prior years and established goals.

Third, Department management should institute a practice of conducting formal one-on-one meetings on at least a monthly basis and annual performance reviews. The Town recently revised its annual performance evaluation tool, which has caused confusion and delayed individual performance conversations.

The information collected during these staff meetings and one-on-one meetings will serve as the basis of reporting up to the Director of Public Works and then the Town Manager’s Office. It will also better enable the Department to proactively monitor and improve Public Works Department services.

**RECOMMENDATION 6: Implement a work order system to track and assign work.**

In addition to developing annual work plans for each division, the Department should begin tracking its ability to complete scheduled work and the use of resources. The Department currently tracks very limited information when it comes to workload, process times, and costs. Work is primarily assigned to employees verbally at the start of a shift. Facility maintenance requests can technically be submitted through Munis, but that capability is reportedly rarely used. The current lack of work flow management is not sustainable in the long term.

It is recommended that the Department implement an electronic work order system to track and assign work. An electronic work order system that generates work orders based on annual work plans enables requests to be filtered and assigned, tracks the status of work orders, and allows maintenance records to be uploaded into the asset management system discussed previously is recommended.

Work order systems help organizations track the time and materials dedicated to completing work orders. Tracking employee time helps organizations understand the distribution of scheduled work and reactive work completed by staff and it also enables organizations to develop activity-based accounting. Activity-based accounting is useful when making service-level decisions or evaluating opportunities to contract out services. Electronic work order systems that include both asset inventories and programmed preventative maintenance work plans are also a best practice recommended by the American Public Works Association (APWA). Implementation of an electronic work order system will better enable the Department to monitor the completion of preventative maintenance work, complaint-driven work, and emergency work. This level of data would allow for regular, holistic analysis of Departmental workload and will allow the Department to better quantify whether service expectations are being met and, if not, to respond in a proactive manner.

It is important to note that the Town currently utilizes the Munis financial system which has a work order module attached to it. However, fundamentally, Munis is a financial system and is cumbersome to use as

an operations support tool. As such, it will be important to purchase and implement a tool that pairs well with Public Works Department operations but that allows a crosswalk to Munis to collect important asset information.

Once implemented, all requests for service including phone calls, emails, and web-based requests for service should be processed through the Department's administrative personnel and logged into the work orders system for prioritization by the program managers.

**RECOMMENDATION 7: Implement a service request system to track complaints and requests.**

Resident complaints and requests for service typically come into the Department via phone. The Department's administrative support staff route each complaint to the appropriate Crew Leader (e.g., pothole complaints are routed to the Highway Maintenance Crew Leader; trash collection complaints are routed to the Refuse and Resource Management Crew Leader).

Reportedly, responding to requests and complaints can be quite disruptive to routine and prescheduled work. However, limited information is available about this portion of the Department's workload. Each division then handles the relevant complaints internally, so the processes differ, but the amount of time crews spend responding to complaints is not currently tracked by any division and there are no processes in place for notifying or following up with residents.

In order to more effectively manage this portion of the Department's workload, more efficiently deploy resources, and provide better customer service, it is recommended that the Department first begin tracking more detailed information about the complaints coming into the Department, including the 1) type of complaint, 2) amount of time staff spend addressing the complaint, and 3) the amount of time that elapses between the complaint date and the resolution date. It will be an expectation of the new Deputy Director – Operations to ensure divisions are efficiently and effectively deploying resources by appropriately prioritizing complaints within the context of scheduled work. Putting some structure around this process will provide management with the information necessary to quantify the workload, prioritize responses, develop reasonable response time expectations, and track the Department's ability to meet established service level standards.

The recommendations included in the previous sections guide the Department through putting in place the structures and systems that are necessary to effectively prioritize, plan, and execute the work the Department must complete to adequately serve Town of Enfield residents. The next several sections focus on changes that are necessary in individual divisions.

## **Staffing and Operations**

In addition to the management and work planning, The Novak Consulting Group completed a staffing and workload analysis, as well as process analysis, in each of the Town's key program areas. In some program areas, additional staffing is required to effectively pivot the Department to a more proactive maintenance approach. In other areas, changes to deployment or processes will generate additional labor capacity that can be used to improve the effectiveness and efficiency of service delivery. Those recommendations are detailed below.

## Custodial Services

### **RECOMMENDATION 8: Convert 11 part-time Custodian positions into three full-time Custodian positions.**

The Town of Enfield Custodial Services Division is responsible for cleaning and providing superficial maintenance (e.g., changing light bulbs) in both Town-owned and school district facilities. The Town has historically found it difficult to maintain the necessary number of personnel during each service day to meet the custodial service demands across all facilities. A main impetus for this study was a desire to determine the appropriate number of custodial personnel required to meet workload demands and service levels expectations and, further, to determine the most economical and effective balance of full-time and part-time labor in the Custodial Services Division.

The Custodial Services Division is led by the Custodial Services Crew Leader and Crew Leader II and is staffed with 53 full-time and 11 part-time Custodian positions. The Division is responsible for cleaning 25 Town-owned facilities totaling 1.4 million square feet of space. The work completed by the Custodial Services Division requires varying hours of operation depending on the unique needs of each facility. Some facilities require a Custodian to be onsite when the facility is occupied (e.g., schools and the recreation center) to deal with issues as they arise while other facilities require after-hour cleaning. To handle the unique needs of each Town-owned facility, the Custodial Services Division assigns Custodians to one of two shifts and then tasks part-time employees with servicing facilities that require less than a full shift to clean.

While part-time employees cost less per hour, relying on part-time labor presents some challenges. Turnover among part-time employees tends to be higher than full-time employees as they may leave when they find full-time employment. Similarly, part-time employees may not be as reliable as full-time employees. Training and recruitment are constant challenges for managers of part-time employees. Essentially, part-time employees present more of an administrative burden than full-time employees.

In addition to the costs of full-time and part-time labor, the Division spent approximately \$274,013 on overtime in 2017.

To determine the appropriate staffing level for the Division, The Novak Consulting Group completed a two-pronged analytical exercise. First, we compared the Town's custodial square footage workload to International Facility Management Association benchmarks to provide a base level comparison of staffing needs. We then completed a more granular analysis of specific Enfield facilities based on hours of operation and the organization of assignments between facilities. Based on this analysis, the Division needs to staff 19 positions on the first shift and 33 positions on the second shift each week. Taking leave into consideration, a total of 58.2 FTEs are required to meet workload demands. Given that the Division is currently staffed with 55 full-time employees, this would involve adding three full-time positions, which would cost a total of \$211,206<sup>5</sup> in salary and benefits. However, a total of \$136,876 in part-time wages<sup>6</sup> and \$111,902 of overtime associated with leave coverage would be significantly reduced. Therefore, converting 11 part-time positions to three full-time positions would save an estimated \$37,572.

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<sup>5</sup> Assumes average salary of \$44,402 and \$26,000 in benefits for a total cost of \$70,402.

<sup>6</sup> It is recommended that the eight hours of labor required on weekends continue to be covered using part-time labor.

## Refuse and Resource Management

### RECOMMENDATION 9: Modify collection schedule to more efficiently deploy Refuse and Resource Management resources.

The Refuse and Resource Management Division collects refuse on five routes Monday through Thursday; recycling on three routes Monday through Thursday; yard waste on 10 routes on Friday; bulky items on Wednesday, and Downtown Thompsonville on two routes on Tuesday and Friday. The following table summarizes the labor hours necessary to staff the various routes on each day of the week. It also shows that the Division requires a range of eight to 14 employees each day.

**Table 4: Labor Hours and Staffing Level Required Under Current Collection Schedule**

Route/Activity	Monday	Tuesday	Wednesday	Thursday	Friday
Refuse	8	8	8	8	
Refuse	8	8	8	8	
Refuse	8	8	8	8	
Refuse	8	8	8	8	
Refuse	8	8	8	8	
Recycling	8	8	8	8	
Recycling	8	8	8	8	
Recycling	4	8	4	4	
Yard Waste					8
Yard Waste					8
Yard Waste					8
Yard Waste					8
Yard Waste					8
Yard Waste					8
Yard Waste					8
Yard Waste					8
Yard Waste					8
Yard Waste					8
Downtown Thompsonville (Two-Person Crew)		16			16
Downtown Thompsonville (Two-Person Crew)		16			16
Bulky Item (Two-Person Crew)			16		
<b>Total Labor Hours</b>	<b>60</b>	<b>96</b>	<b>76</b>	<b>60</b>	<b>112</b>
<b>Number of Employees</b>	<b>7.5</b>	<b>12</b>	<b>9.5</b>	<b>7.5</b>	<b>14</b>

The Refuse and Resource Management Division is led by a Crew Leader and staffed with 16 drivers and two laborers. Under the current schedule, it is difficult to consistently staff all of the routes on Fridays as 14 drivers are required. However, a slight adjustment to the collection schedule would help smooth the workload of the Division across the week. Moving yard waste collection to Mondays would change the range of employees necessary to between eight and 12 rather than the current range of eight to 14.

Changing the schedule so yard waste is collected on Mondays has several additional benefits. First, residents often put yard waste on the curb during the weekend where it remains all week. Second, it simplifies the schedule for residents because yard waste collection is cancelled on holiday weeks. Since holidays typically fall on Mondays, refuse collection services are then shifted back by a day on weeks with a holiday, which can be confusing for residents. Finally, it more efficiently deploys staff, decreasing the number of employees necessary (when leave is taken into consideration) from 17 FTEs to 15 FTEs. Given that the Division currently has 16 Equipment Operator I and II positions, it is adequately staffed to provide established service levels if the collection schedule is adjusted. The following table shows the impact this minor collection schedule change would have on the Division's staffing requirements.

**Table 5: Labor Hours and Staffing Level Required Under Proposed Collection Schedule**

Route/Activity	Monday	Tuesday	Wednesday	Thursday	Friday
Refuse		8	8	8	8
Refuse		8	8	8	8
Refuse		8	8	8	8
Refuse		8	8	8	8
Refuse		8	8	8	8
Recycling		8	8	8	8
Recycling		8	8	8	8
Recycling		8	4	4	4
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Yard Waste	8				
Downtown Thompsonville (Two-Person Crew)		16			16
Downtown Thompsonville (Two-Person Crew)		16			16
Bulky Item (Two-Person Crew)			16		
<b>Total Labor Hours</b>	<b>80</b>	<b>96</b>	<b>76</b>	<b>60</b>	<b>92</b>
<b>Number of Employees</b>	<b>10</b>	<b>12</b>	<b>9.5</b>	<b>7.5</b>	<b>11.5</b>

Adjusting the collection schedule would enable the Division to maintain existing service levels with 15 FTEs rather than 16 FTEs, which would save the Division an estimated \$81,000 if the position is eliminated.

**RECOMMENDATION 10: Expand cross-training of employees to support highway, building, and grounds maintenance operations and create a Complaint Response Team.**

The previous recommendation demonstrates how the workload demands of the Refuse and Resource Management Division fluctuate throughout the week as the collection schedule fluctuates. The Division must be staffed to handle the peak days, which can result in unavoidable excess capacity. For example, if all 15 drivers are present on a Thursday, the Division would have an extra seven employees who would not be assigned to routes. It must be reiterated that 15 FTEs are necessary to ensure an adequate staffing level when employees are on leave, so seven extra employees would likely not be the norm. Still, the Division is likely to have additional labor capacity on Monday, Wednesday, and Thursday.

This excess capacity presents an opportunity for the Department to pool resources by assigning Refuse and Resource Management employees to Highway Maintenance Division or Buildings and Grounds Maintenance crews when the Refuse and Resource Management Division is fully staffed.

The Department does not currently track any hourly labor data for the Highway Maintenance Division, which makes it difficult to assess the workload of staff. In the absence of actual labor hour data, The Novak Consulting Group worked with Highway Maintenance staff to estimate the workload. Staff estimated the amount of time it takes to complete each activity and how often it must be completed. For example, one employee is dedicated to mowing Town rights-of-way, an activity that takes approximately two months and is completed twice (essentially 176 hours per month from June through September). The total labor hours required each month was then compared with the Division's capacity based on the number of labor hours each employee has available each month. The same workload estimation exercise was completed with the Grounds Maintenance staff of the Buildings and Grounds Division.

The seasonal nature of the work completed by each of these divisions lends itself to a labor pool model in which resources are shared. The Highway Maintenance Division's slowest month is October, which is the busiest month for Grounds Maintenance crews. The Grounds Maintenance function must be staffed at a level that enables it to appropriately service the Town's ball fields, a workload that peaks in the spring and the fall. Meanwhile, the Highway Division must be staffed at a level that enables it to appropriately respond to winter weather events. As such, the existence of excess capacity during certain months does not warrant any changes to the staffing levels of these functions. Rather, it would suggest that there might be opportunities to bring in-house some activities that are currently contracted out (such as crack sealing) or to assist other divisions (such as mowing the WPC Plant and pump stations) during slower months. It should be noted that mowing is a nonspecialized task that could easily be contracted out or completed by seasonal employees, leaving the Division's more specialized employees to complete more specialized work such as crack sealing or culvert cleaning and repair. It also provides an opportunity for the Department to create a "response team" that would be available two to three days per week to respond and address citizen complaints or emergency repairs which would free up other crews to focus on preventative maintenance during those days.

However, it is important to note that these workload calculations are based on estimates, and that each Division is consistently leveraging overtime even during months that should be slow. For example, last year the Highway Maintenance Division used an average of nearly 200 hours of overtime during each of the summer months. Once the Department has implemented the work order system, it will be possible to more accurately estimate the seasonal workload of the functions. If actual labor hourly data confirms the results of the above workload estimates, it is recommended that the Department begin cross-training employees from the Refuse and Resources Management, Highway Maintenance, and Buildings and

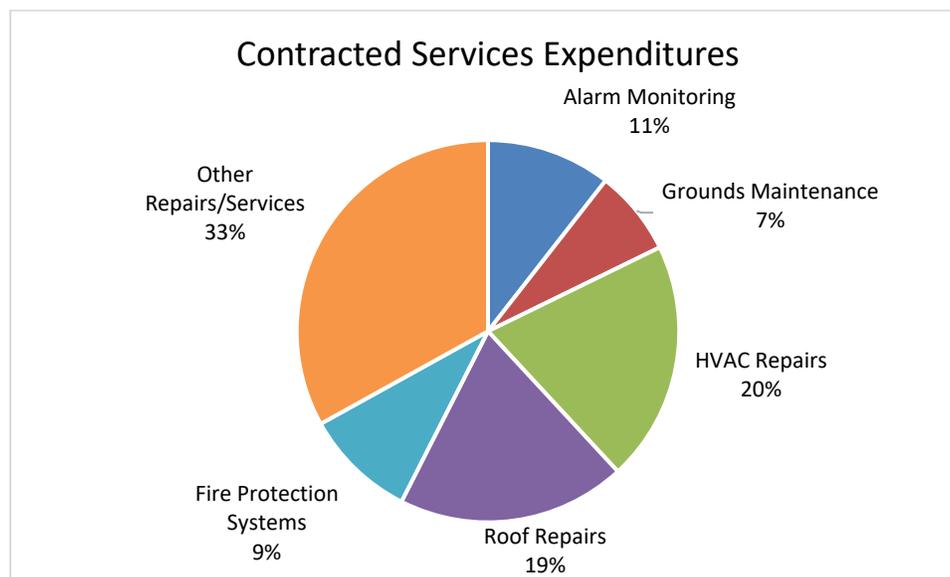
Grounds Maintenance Divisions to segment labor capacity, limit the need for crew-based overtime, and develop a response team for emergency repairs and citizen complaints.

### Buildings and Grounds Maintenance

**RECOMMENDATION 11: Staff Building Maintenance function so preventative maintenance is completed.**

The Town owns and maintains 25 facilities totaling 1.4 million square feet of space. The Building Maintenance function of the Buildings and Grounds Maintenance Division is responsible for maintaining all facility equipment (e.g., HVAC systems, water heaters, security systems). The Division currently does not track the scheduled and unscheduled work completed by its technicians. In the absence of data, contracted services spending, reports of employees and customers, and benchmark ratios can provide some insight into whether the staffing level of the Building Maintenance function is adequate.

The Building and Grounds Maintenance Division spends approximately \$400,000 on contracted services each year. The following figure shows the types of services for which the Division contracted in 2017. A total of 20% of the Division's contracted service expenditures (approximately \$80,000) were for HVAC repairs while 19% (approximately \$75,000) were for roof repairs. All of the expenditure types grouped in the other repairs/services category each totaled less than 7% of total expenditures. Examples of the expenditures types grouped into this category include elevator maintenance, pest services, kitchen equipment services, etc.



**Figure 5: Building and Grounds Maintenance Contracted Services Expenditures by Type, 2017**

According to employees, technicians spend most of their time on service calls that are reactive in nature. Reactive calls are the most disruptive and expensive form of facility maintenance. They cannot be planned, parts may not be readily available, staffing plans are disrupted, and in some cases, building occupants and their job functions may be interrupted or cancelled (e.g., if a heating or cooling system is out of service).

A better form of servicing is that of preventative maintenance. This allows for the required parts to be on site and personnel to be able to plan for the event with minimal disruption to building occupants. A best

practice ratio of service calls is 30% (or less) reactive and at least 70% preventative. This level of preventative maintenance results in a much higher service level for customers; in this case, the public and the Town employees working in the facilities.

Given the cost of replacing Town-owned facilities, it is critical that the Town dedicate sufficient resources to effectively maintaining existing facilities and maximizing their useful life. The International Facility Management Association (IFMA) offers benchmark ratios to help organizations determine facility maintenance technician staffing needs. These ratios are based on the criticality of the specific facilities, their age, and the condition and complexity of the systems being maintained. Based on IFMA benchmarking standards, for the type and condition of facilities maintained by Facilities Division staff, the appropriate ratio is 60,000 square feet per technician. Applying this ratio to the 1.4 million square feet that requires technical maintenance yields a maintenance technician requirement of 23 technicians for the Town.

The Buildings and Grounds Maintenance Division is led by the Facilities Manager and a Crew Leader and is staffed by five technicians<sup>7</sup> and 16 generalists.<sup>8</sup> Reportedly, the generalists do not complete any technician work. Rather, they are primarily focused on maintaining the Town's ball fields and grounds and completing facility renovation and improvement projects. Based on contracted services expenditures, reports of employees, and the IFMA's staffing guidelines, it appears that the Building Maintenance function is understaffed. However, it is not recommended that the Division immediately add 18 technicians. First, management must do a significant amount of work to define the workload of the Building Maintenance function (by developing annual workplans that include the necessary preventative maintenance activities for each type of equipment maintained by the Division) and then track the ability of each technician type (e.g., HVAC Technician, Electrician) to achieve scheduled maintenance. In addition, management should explore opportunities to decrease the workload of the Division by closing or consolidating facilities. These steps by management will clarify the long-term staffing needs of the Division. In the interim, it is recommended the Division add four Technicians – one HVAC Technician, one Plumber, one Electrician, and one Carpenter. Creating four Technician positions will cost an estimated \$340,000.<sup>9</sup>

## Highway Maintenance

### **RECOMMENDATION 12: Update snow plan to clarify service level expectations, document operations, and host annual refresher training.**

During the winter months, snow removal becomes the primary focus of the Public Works Department. To provide the level of service currently expected by the community, the Department's snow removal operation is a collaborative effort that involves employees from every division working "until the streets are cleaned" with limited breaks. According to data tracked by the Department for the last three years, approximately eight snow events lasting longer than 12 hours and two snow events lasting longer than 24 hours hit the Town of Enfield each year.

The Department's current approach to snow removal presents significant safety concerns. First, employees sometimes work long hours removing snow followed by working their regular shift (e.g., refuse truck drivers may plow snow all night and then drive a refuse truck all day). Second, there is no formal training for drivers and no refresher training each season. Limiting the number of hours and providing

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<sup>7</sup> Lead Carpenter, Electrician II, Electrician I, HVAC Mechanic, and Plumber II

<sup>8</sup> Two Equipment Operator IIs, Asbestos Assistant, two Laborer IIs, and 11 Laborers

<sup>9</sup> Assuming \$60,000 base salary plus \$26,000 in benefits

additional training will hopefully decrease the number of mailbox, lawn, and curb damage complaints while also ensuring driver safety.

The American Public Works Association (APWA) is a non-profit professional association that publishes a manual of recommended practices for public works organizations in the United States. The *APWA Public Works Management Practices Manual* recommends public works organizations adopt a snow and ice control plan. According to the APWA, such plans should include policies and procedures for the following: storm warning notification; personnel scheduling; mobilization; snow and ice control material guidelines and application; equipment preparation; equipment calibration; snow route assignment; material loading; spreading and plowing; snow storage plan; snow operation damage; and parking control.

It is recommended that the Department formalize its snow and ice control policies and procedures, including a winter event schedule that involves drivers working 12 hours and then being off for at least 12 hours. Once the snow plan has been updated, the Department should host an annual snow plan review and training session just before snow season.

### **Fleet Management**

#### **RECOMMENDATION 13: Convert one Lead Mechanic position to a Parts Manager position.**

The *APWA Public Works Management Practices Manual* recommends organizations have a “parts inventory program that tracks new and used parts, tires, and batteries used in the maintenance and repair of equipment.” Currently, the Department has a parts room that is stocked with an inventory of parts, tires, and batteries. However, the inventory is not centrally tracked or managed, which has several major impacts on service levels. First, this approach to maintaining a parts inventory can result in service delays when the Division runs out of the parts necessary for a specific repair and must wait for a part to be ordered. Second, this approach involves the Mechanics, who are skilled workers, spending a portion of their time locating and ordering parts.

The Fleet Management Division is led by the Fleet Manager and staffed by one Clerk Typist, two Lead Mechanics, and four Mechanics. The Lead Mechanics are responsible for supervising and assigning work to the Mechanics in addition to servicing vehicles. One Lead Mechanic is assigned to each shift (first shift is from 7:00am to 3:30pm and second shift is from 3:00pm to 11:30pm). The primary responsibility of the Division’s four Mechanics is the maintenance and repair of the Town’s 444 fleet units (all smaller equipment is maintained by staff in the user’s department). The Division should be commended for having mechanics available during the Department’s core hours of operation and also having mechanics available to complete scheduled preventative maintenance when equipment is not in use (during the second shift).

To assess the staffing level of the Fleet Management Division, it is necessary to quantify the workload of the Mechanics, taking into account the size and composition of the fleet using vehicle equivalent units (VEUs). The most precise method of calculating VEUs is to estimate the workload associated with each vehicle class using Maintenance and Repair Units (MRUs). To properly calculate MRUs by unit class for the Town, it is necessary to calculate the number of maintenance hours (wrench time) per unit and to then develop an estimate of average annual maintenance hours by unit class (e.g., annual maintenance hours required per backhoe, per heavy duty dump truck). This information was not readily available, but it is appropriate for the Town to begin tracking this data as soon as possible, not only as a mechanism to fully understand workload and staffing requirements, but to improve transparency and information sharing with user departments.

In the absence of this data, The Novak Consulting Group applied estimated MRUs. Applying the estimated MRUs to the Town’s fleet inventory converts the 444 actual units in Enfield to approximately 733 VEUs. Both the MRU index by vehicle class and VEU conversion are summarized in the following table.

**Table 6: Town of Enfield Estimated VEU Conversion**

Unit Class	Number of Units	Maintenance and Repair Units Index	Vehicle Equivalent Units
Backhoes, loaders, trenchers	20	2.5	50
Dump Trucks	8	4.0	32
Medium- and Heavy-duty trucks	119	3.5	416.5
Other motorized equipment (floor sweepers, chippers, etc.)	98	0.5	49
Passenger Car	147	1.0	147
Street Sweepers	2	14.0	28
Trailers	50	0.2	10
<b>TOTAL</b>	<b>444</b>	<b>25.7</b>	<b>732.5</b>

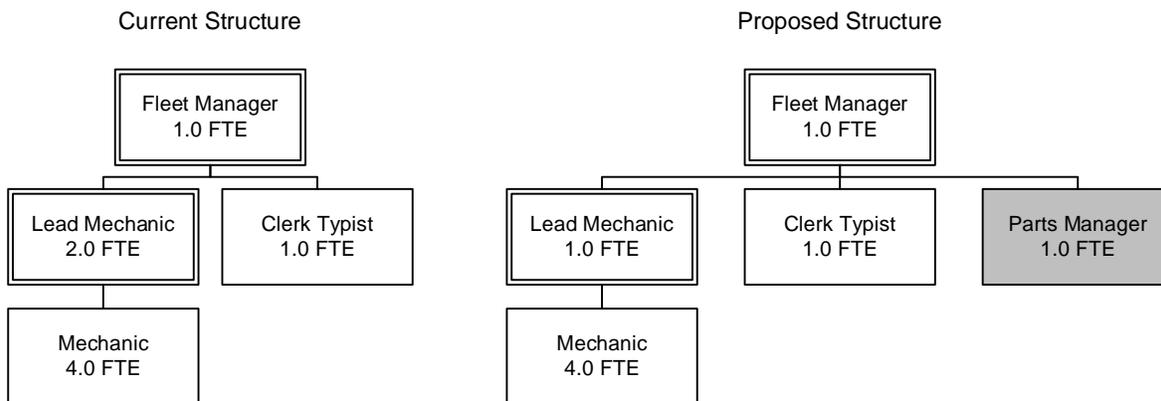
Utilizing the estimated MRU index values, it is estimated that approximately 12.5 hours of Mechanic labor hours are required per VEU, or approximately 9,156 labor hours per year are required to maintain the Town’s fleet inventory.

Based on the leave data provided by the Town, each mechanic is estimated to have approximately 1,765 hours of wrench time available per year. With two Lead Mechanics and four Mechanics, this equates to 10,590 available labor hours per year. Based on estimated VEU data this indicates a potential mechanic labor hour surplus of 1,434 hours, or approximately 0.8 FTE. However, it is important to emphasize that this assessment is based on estimated MRU information and the Division should work toward calculating Enfield’s actual ratios.

It is recommended that the Division better allocate its mechanic resources by converting one of the Lead Mechanic positions to a Parts Manager position. The *APWA Public Works Management Practices Manual* recommends public works organizations manage their inventory of parts, which includes: using a program to track inventory, marking items stored as inventory, and developing procedures for disposing of parts. A well-designed and documented inventory program will establish the necessary controls while better enabling the Division to efficiently and effectively meet the needs of its customers. It is reasonable to expect the Fleet Manager to provide supervision during the first shift and to take on additional administrative and scheduling duties in order to decrease the administrative burden on the Lead Mechanic.

In addition to ensuring an accurate parts inventory is in place, the Division must adopt policies and procedures to guide the new Parts Manager in administering the Division’s inventory. These policies should provide direction regarding which parts should be stocked and which parts should be ordered on demand, reorder points for each part type, schedule for purchases based on seasonal workload (e.g., sweeper brushes, snow plow blades), disposal procedures, and other important issues. The creation of a Parts Manager position and the implementation of policies and procedures will minimize the administrative burden placed on skilled staff while maintaining improved customer service levels.

The following figure shows the current and proposed organizational structures and staffing levels of the Fleet Management Division. The new Parts Manager position is highlighted in grey.



**Figure 6: Current and Proposed Organizational Structures and Staffing Levels of the Fleet Management Division**

**RECOMMENDATION 14: Increase security of the Fleet Management Division’s work area.**

The Fleet Management Division’s work area is centrally located within the Town of Enfield’s Public Works Facility. As such, the fleet maintenance shop has become a main thoroughfare for employees. The openness of the maintenance shop presents both security and productivity concerns. The fleet maintenance shop and parts room both contain a valuable inventory of tools and parts that are not secured and can easily go missing. Additionally, employees passing through the shop can be distracting and impact the efficiency of Division employees. Therefore, it is recommended that the Division implement measures to secure and control access to the fleet maintenance shop and parts room.

**RECOMMENDATION 135: Incorporate input of user departments into vehicle and equipment purchasing decisions.**

Currently, the Fleet Manager is responsible for the entire vehicle and equipment purchasing process, including the development of specifications. However, user departments should be granted more opportunity to provide input. The result of the Town’s current approach to purchasing vehicles has resulted in a non-standardized fleet, which creates inefficiencies for both the Fleet Management Division and user departments. During interviews and focus groups, customers mentioned how challenging it can be to switch between the Town’s diverse fleet. For example, having the truck controls one way in certain trucks and reversed in others sometimes results in inadvertent dumping of loads.

The *APWA Management Practices Manual* recommends that public works departments designate employees who will be using the equipment to review all equipment specifications and bids. By engaging users in fleet purchasing decisions, the Fleet Management Division will ensure that user departments have access to the units they need to perform their work. It is recommended that the Fleet Manager begin engaging users in the vehicle and equipment specification process.

**RECOMMENDATION 16: Begin charging customer departments for the full cost of vehicle maintenance.**

Currently, the fleet replacement needs of departments are funded through the Town’s Capital Improvement Plan. However, vehicles are reportedly not always replaced on schedule due to financial limitations. The fleet maintenance needs of departments are funded through the Fleet Management Division’s budget. Only the Water Pollution Control Division is charged for equipment maintenance and repair (approximately \$140,000 per year, the basis for which could not be ascertained).

The current approach to funding fleet repair and replacement impacts the Fleet Management Division's workload in two key ways. First, not replacing vehicles on schedule increases repair and maintenance costs. As equipment reaches the end of its useful life, maintenance costs increase until the maintenance costs are eventually greater than the cost of purchasing a new piece of equipment. Second, the Fleet Management Division reports that some departments choose to keep old vehicles "as a spare" after replacement, which increases the size of the Town's fleet.

To begin charging customer departments for the full cost of vehicle maintenance, the Fleet Management Division must charge for the costs of both parts and labor. The Division is already tracking the parts used for each repair but must calculate its fully burdened labor rate and begin tracking the time each mechanic spends on each repair.

To calculate the fully burdened labor rate, it is first necessary to calculate the direct labor rate for each mechanic. The direct labor rate is the hourly salary and benefit rate for each Mechanic adjusted to reflect non-productive time. It is calculated by dividing the total salary and benefit cost for each Mechanic by the number of billable hours available. The number of available billable hours is calculated by subtracting leave and training time from the number of annual hours scheduled to work. For the Fleet Management Division, the result of this calculation is a direct labor rate of \$49<sup>10</sup> per hour.

It is then necessary to assemble indirect costs to include the cost of administrative support (e.g., HR, IT, and management), facility costs (e.g., utilities, facility depreciation, and maintenance), fuel system operations cost, and other support costs. Indirect costs are divided by direct costs to develop an overhead rate that is applied to the fully-burdened labor rate calculation. These overhead costs should also include the salary and benefit rates of Fleet Management Division staff who are not mechanics (e.g., the Fleet Manager and recommended Parts Manager), as well as administrative overhead time associated with executive management staff. Once the Division establishes the fully burdened labor rate it will charge customer departments, it should be evaluated and adjusted annually to reflect costs and ensure that the Fleet Management Division is self-sufficient.

## **Water Pollution Control**

**RECOMMENDATION 17: Adopt new deployment approach and begin completing preventative maintenance on both the WPC Plant and the sewer collection system.**

The WPC Division is led by the WPC Superintendent and supported by three Lead Attendants, eight Operators, and an Administrative Assistant. The WPC Division is responsible for operating and maintaining the Town's WPC Plant and sewer collection system.

The Division is primarily reactive, with the work of maintenance employees dictated almost entirely by demand for repairs. While the Division should be commended for not violating any of its discharge permits, the current approach to deploying resources results in three major issues. First, not having dedicated operations staff means employees are frequently pulled off tasks associated with the routine operation of the WPC Plant in order to respond to requests and emergencies such as sewer backups and manhole issues. Second, the WPC Plant is not being appropriately maintained as very limited preventative maintenance is being completed. The Town is beginning the process of upgrading the Water Pollution Control Plant. Originally built in the 1970s, much of the plant's equipment is more than 40 years old. Once the upgrades are completed, it will be necessary for the Division to begin performing preventative maintenance. Third, the Division is not completing any of the best practice preventative maintenance on

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<sup>10</sup> Average Mechanic salary and benefit total of \$86,500 and average annual leave usage of 315 hours

the Town's sewer collection system, which is concerning. Typically, communities aim to inspect and repair their entire collection system every five years. Reportedly, the extent of preventative maintenance being completed on the Town's sewer collection system involves jetting of identified problem areas as time allows.

As part of the recommendations outlined in the Work Planning and Tracking section of this report, the Division will develop preventative maintenance schedules for both the WPC Plant and sewer collection system infrastructure assets. To effectively complete scheduled maintenance while also operating the WPC Plant, it is recommended that the Division allocate resources to the following functions:

- **Plant Operations:** A crew of three employees (Lead Attendant and two Operators) is necessary to safely operate the WPC Plant. To staff both shifts taking leave into consideration, a total of seven FTEs are required, plus overtime for weekend coverage.
- **Plant and Collection System Maintenance:** A crew of three employees is necessary to maintain the WPC Plant. This crew will be responsible for completing all preventative maintenance as well as emergency repairs on all plant infrastructure. A crew of four employees is necessary to maintain the Town's sewer collection system. These crews would be responsible for televising, jetting, and repairing the Town's sewer collection infrastructure and completing both preventative maintenance and repairs on the Town's pump stations. In addition, these employees would be tasked with responding to complaints and issues related to the sewer collection system. To staff both the plant maintenance and collection system maintenance functions will require seven FTEs.

To appropriately staff these crews, three positions must be created. Implementing this recommendation will cost an estimated \$240,000.<sup>11</sup> This recommendation is in line with that of the Woodard & Curran staffing study that was commissioned by the Town in 2014. The result of that study was an additional four positions: two in process operations, one in equipment maintenance, and one in laboratory operations.

**RECOMMENDATION 18: Implement a single shift, 10-hour schedule for Water Pollution Control operations.**

Another deployment approach that is available to the Division is to begin staffing WPC Plant operation seven days per week with one shift rather than five days per week with two shifts. Currently, two shifts are necessary because sludge must be processed twice (once during the first shift and once during the second shift) on Mondays and Tuesdays to make up for not processing on Saturdays and Sundays. The five days per week schedule is also not ideal because it requires one Operator to come in on Saturday and Sunday for a total of eight hours to check that WPC systems are running smoothly. Not only does this schedule require overtime, but it also involves an employee working alone, which is not ideal.

Having the Plant Operations staff instead work four 10-hour shifts (Sunday through Wednesday and Wednesday through Saturday) would have several benefits. First, employees would never be working alone. Second, the filtering process could occur every day and allow for weekend sludge processing. Third, having an overlap day (Wednesday) provides an opportunity for the WPC Superintendent to communicate important information to all staff and is an ideal time for training sessions or projects that require a larger crew size. Finally, while the same number of FTEs would be required, the operation would be better able to meet the minimum staffing levels as it is easier to schedule people for different days of the week when they are all assigned to the same shift. Given these considerations, it is appropriate to consider converting

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<sup>11</sup> Assuming \$54,000 base salary plus \$26,000 in benefits.

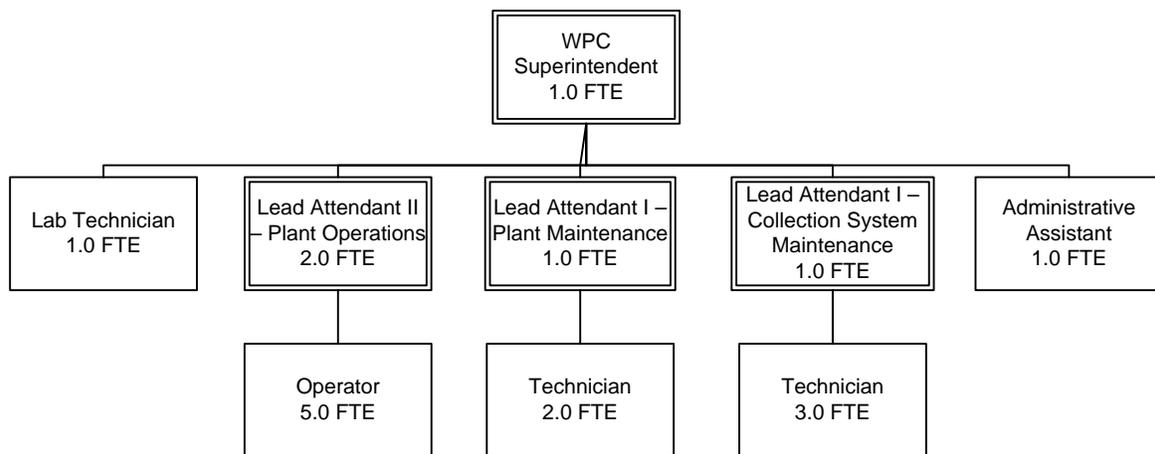
to a single shift 10-hour schedule for WPC operations once the treatment facility upgrade is complete and a Supervisory Control And Data Acquisition (SCADA) system is installed and operational.

**RECOMMENDATION 19: Create a Laboratory Technician position.**

Daily plant operations are supervised by two Lead Attendants (one assigned to the first shift and one assigned to the second shift), who are working supervisors. Currently, the Lead Attendant on the first shift also serves as the Laboratory Technician. When the process and compliance testing responsibilities were added to the Lead Attendant role a few years ago, five hours of overtime per week were authorized in an attempt to accommodate the additional workload being assigned. However, it is estimated that approximately 80% of this employee’s time is dedicated to completing the Laboratory Technician responsibilities. As such, supervision of the first shift is lacking.

Not having a supervisor present means staff are often operating with limited supervision. This can present accountability issues, which affect morale when not addressed, and quality concerns as work goes uninspected.

It is recommended that the roles of Lead Attendant and Laboratory Technician be separated so that the responsibilities of both roles can be effectively executed. It is estimated that this recommendation will cost an estimated \$80,000.<sup>12</sup> The recommended organizational structure and staffing changes are presented in the following figure.



**Figure 7: Proposed WPC Division Organizational Structure**

**RECOMMENDATION 20: Hire a seasonal employee to mow the WPC Plant and pump stations.**

The intent of the Connecticut Department of Energy and Environmental Protection’s (DEEP) Wastewater Certification Program is to assure the competence of wastewater treatment superintendents and operators. Certification is obtained by meeting certain experience, education, and exam criteria. There are four levels of Operator Certification (Classes I through IV). Currently, the WPC Superintendent is required to be a Class IV Operator and the first shift and second shift Lead Attendant positions are required to be Class III Operators. Meanwhile, WPC operations staff must be at least an Operator I.

<sup>12</sup> Assuming \$54,000 base salary plus \$26,000 in benefits.

All WPC Operators and Technicians have skills and training that set them apart from unskilled laborers. However, during the summer months, WPC Division staff spend approximately 32 hours per week mowing around the WPC Plant and 16 pump stations. Mowing is not a specialized task, yet WPC Operators are assigned this work. This is not the best use of skilled employees. Given that it takes time and dedication to achieve each Operator Certification level, it can be frustrating for employees to be assigned unskilled tasks. Hiring a seasonal employee to mow around these facilities would cost an estimated \$20,000 per year. In the alternative, plant and pump station mowing can be assigned to the cross-trained Refuse and Resource Management, Highway, and Building and Grounds Maintenance labor pool referenced in Recommendation 10.

**RECOMMENDATION 21: Revise the seasonal hiring process to accommodate a June 1 start date each year.**

It is important to note that there is a fundamental challenge associated with filling seasonal positions in the Department. Seasonal positions are typically needed beginning in early June, or sooner. However, the Human Resources and Finance Departments will not authorize the recruitment process for seasonal positions to begin until the budget is adopted for the upcoming fiscal year beginning July 1<sup>st</sup>. As a result, seasonal positions often do not begin work until August which fundamentally limits their utility.

The hiring process for seasonal positions should be revised to allow for the recruitment process to accommodate a June 1 start date. Should seasonal positions be eliminated during the budget process, the Town and Human Resources should take appropriate action to decrease seasonal workers hours to accommodate. However, this nuance of the budget calendar should not be allowed to fundamentally disrupt operations.

**RECOMMENDATION 22: Clarify role of the WPC Superintendent.**

The WPC Superintendent has done an excellent job of working with available resources to prolong the life of the aging WPC Plant and equipment to keep the Plant running. There have been few, if any, discharge violations and citations from DEEP that have been associated with the age and condition of the Plant and equipment. However, it should be noted that the Plant was designed and constructed for double the loading it presently receives, which is partially the reason there have been few, if any, discharge violations.

The Town is embarking on a \$36 million Plant upgrade. Management of this project should be the responsibility of the WPC Superintendent and will require significant time and attention. However, the WPC Superintendent is currently involved in many routine decisions, including the prioritization and assignment of daily tasks. In order for the WPC Superintendent to provide adequate attention to the upgrade, it will be necessary for the Lead Attendants to take ownership of daily Plant management and operations. The clarification of expectations through the development of division and individual work plans will support this effort. Further, it is recommended that the WPC Superintendent take on a more direct role in Plant upgrade project management as well as employee performance management.

## **Engineering**

**RECOMMENDATION 23: Consider creating a pool of in-house house construction inspectors.**

The Roads/Engineering Unit is responsible for the design, procurement, and construction oversight of road, sidewalk, parking lot, and drainage system construction, reconstruction, and preservation projects and the management of the Town's five-year capital levy. In that role, Roads/Engineering staff serve as contract manager for the design, construction, and inspection of capital projects. From 2015 through June 2018 they have expended over \$53 million in capital funds. Of that amount, from 2015 through 2017, the Town has paid for an average of 6,597 hours per year for construction inspection services. This equates

to the equivalent of approximately 3.16 FTE worth of contracted labor hours. The cost for these services averaged approximately \$1,049,164 per year which equates to over \$330,000 per FTE. By comparison, a full-time inspector could be hired for approximately \$100,000 in salary and benefit costs, depending on specialization and experience.

On the surface, this suggests that the Town may be able to save significant expense by creating in-house contractor inspection positions. However, this must be balanced by the ability of these in-house inspectors to handle the volume of work completed on an annual basis. One of the principle benefits of using contracted labor for inspections is that contractors can draw upon multiple personnel to accommodate several projects occurring simultaneously. Regardless of this factor, The Town should evaluate the cost benefit of adding some in-house inspection capacity and to decrease construction inspection expenses.

## Revenue Opportunities

The Town of Enfield, like many local governments, is faced with difficult financial decisions. The cost of providing services is growing at a rate that exceeds the growth of revenue, so the Town must make decisions about the level and type of service that is provided or determine how additional revenue can be generated to support service level expectations. The Town of Enfield has chosen to fund the majority of its refuse and recycling services through General Fund revenue such as property taxes. However, as General Fund revenue becomes more constrained, it is appropriate to consider alternative sources of revenue to support these services.

### **RECOMMENDATION 24: Evaluate opportunities to generate additional revenue from solid waste services.**

The Department provides curbside refuse collection services on a weekly basis and curbside recycling services on a biweekly basis. Curbside yard waste collection is provided on a weekly basis from April through November and curbside bagged leaf collection services are provided on a weekly basis during the fall.

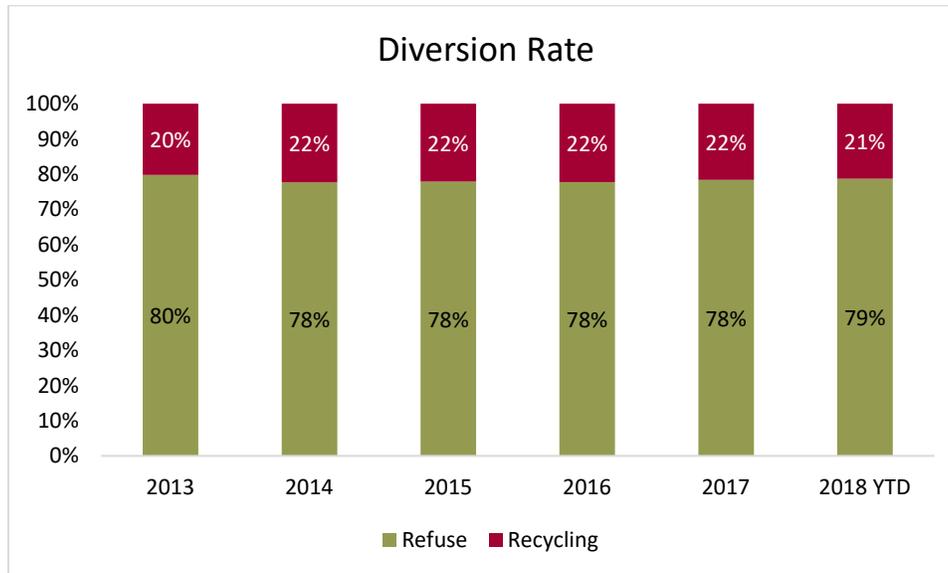
The Refuse and Resource Management budget for FY2018 totaled \$3,533,760 while the Division generates approximately \$300,000 in revenue each year. Currently, the only cost borne by residents for refuse, recycling, and yard waste services is the price of purchasing tippers. There are no limits on the number of containers the Refuse and Resource Management Division will collect from each residence. Bulky item pickup and use of the Transfer Station are the only solid waste collection services for which residents are currently charged.

It is recommended that the Town explore opportunities to generate additional revenue. Two options are available. The Town can either adopt a pay-as-you-throw approach with a goal of partial cost recovery or create a solid waste utility with the goal of complete cost recovery.

Under a pay-as-you-throw approach, a base level of service would be provided at no additional cost. For example, the Department might collect from each residence one refuse and one yard waste tipper each week and one recycling tipper every other week. If residents want to put out multiple refuse tippers or yard waste tippers, then they would be charged for that additional level of service. This approach would generate additional revenue. It could also increase the Town's diversion rate, which is the amount of

waste diverted from the waste stream for recycling. This is particularly important in the Town of Enfield because tipping fees are higher than recycling processing fees.

Currently, approximately 22% of the tonnage collected in the Town of Enfield is recycled. That rate has remained relatively constant for the last five years, as can be seen in the following figure. Increasing the diversion rate by 1% could save the Town an estimated \$10,431 in disposal fees. Therefore, it might be cost effective to create a Recycling Coordinator position tasked with increasing the Town's diversion rate to a reasonable target of 35% (for a total estimated savings of \$135,603).



**Figure 8: Historical Recycling Diversion Rate**

The second option is to create a solid waste utility. Creating a solid waste utility would involve the Division determining the full cost of providing refuse recycling and yard waste collection services and then setting fees that enable those costs to be fully recovered. The solid waste collection operations would be classified as an enterprise fund and would be required to fully support operating expenses. While this option would generate additional revenue and free General Fund resources for other priorities, it would also limit the Department's ability to utilize Refuse and Resource Management personnel for activities in other program areas, such as Highway Maintenance and Buildings and Grounds. It is also worth noting that though there are many municipal solid waste utilities throughout the country, none of the Connecticut benchmark jurisdictions referenced in Appendix A operate an enterprise fund solid waste utility. Given these considerations, it may be more appropriate for the Town to pursue a pay-as-you-throw model.

**RECOMMENDATION 25: Adopt a transfer station cost recovery goal.**

In addition to the refuse and recycling collection operation, the Town operates a refuse transfer station that is used for Town waste and as a residential and commercial drop-off site. A transfer station is a building or processing site for the temporary deposit of waste. Transfer stations are often used as places where local waste collection vehicles will deposit their waste cargo prior to loading into larger vehicles. Transfer stations reduce the cost of transporting waste to distant dumps and landfills by serving as convenient hubs for a community's waste.

In 2018, the Town has budgeted an estimated \$243,794 per year in direct costs to operate the Town’s Transfer Station. This includes the salary and benefits costs of the three positions (Scale Operator, Equipment Operator II, and Equipment Operator I) assigned to the Transfer Station.<sup>13</sup> The following table includes the budgeted expenditures for FY2018.

**Table 7: Budgeted Transfer Station Operating Costs, FY2018**

Expenditure Type	Amount
Salary and Benefits	\$235,968
Water	\$300
Cable	\$315
Credit Card Machine Fees	\$2,050
Truck Scale Calibration	\$659
Scale Registration	\$250
Transfer Station License	\$800
Public Weigher Licenses	\$120
Creative Info Support and Maintenance	\$2,500
Printing of Permits	\$831
<b>TOTAL</b>	<b>\$243,793</b>

The Town charges residents to dispose of some waste at the Transfer Station. Residents pay \$5 for a permit and then pay a \$7 flat fee for loads up to 260 lbs or \$0.07/lb for loads over 260lbs. With a permit, yard waste disposal is free. A fee of \$20/unit is charged for the disposal of refrigeration units (including refrigerators, air conditioners, and dehumidifiers). There are no fees for scrap metal, recyclables, televisions, microwaves, and electronics.

Under the current fee schedule, revenue from permit fees covers approximately 8% of direct operating costs (approximately \$20,000). The best practice for operations that have private sector competitors is to target 100% cost recovery. However, it is appropriate for local elected officials to decide to subsidize the cost of an operation as a service to their residents. That should be a deliberate decision, though, that takes into account the broader financial needs of the government. To that end, it is recommended that the Town engage in discussion with the Public Works Department to adopt cost recovery goals for the transfer station and to adjust the transfer fees to meet that objective. The Public Works Department submitted a revised fee structure for bulky items in the Spring of 2017.

<sup>13</sup> Estimate does not include indirect costs or overhead.

## Support Services

The Public Works Department, like all operating departments, must rely on administrative and internal service departments to support staff and program service delivery. For example, the Public Works Department relies upon the Finance Department to support budget and accounting management as well purchasing; it relies on the Human Resources Department to assist with hiring and onboarding, training, and employee relations; and it relies on the Information Technology Department to support technology initiatives. These support services are critical to the Public Works Department's success. However, in addition to this support role, these departments are also tasked with ensuring that rules and regulations pertaining to financial and human resource management are observed in processes and programs. This tension, between the requirement to support operating departments and provide financial and administrative oversight on behalf of the government, must be actively managed. The following recommendations offer opportunities to strengthen the functionality of support services in the organization.

**RECOMMENDATION 26: Expand the purchasing and human resources management responsibilities of the Business Operations Manager.**

Highly functioning internal service departments provide a balance between support to managers and employees and compliance management to ensure consistency and limit liability to the organization. There are two primary models of internal service delivery – centralized and decentralized.

A decentralized model primarily relies on operating departments to manage support services issues at the department level. Under this model, a small internal services staff provides the policy structure and guidance for HR, financial management, and purchasing processes, but each operating department is responsible for individually interpreting and applying the organization's HR practices. The benefit of this model is that it is responsive and flexible. It allows operating departments to act quickly to address personnel issues that are impacting service delivery. The primary negative attribute of this model is that it can result in the inconsistent interpretation of policies from one department to another, or within a given department.

Under centralized models, an organization is staffed with a robust internal services professional staff that provides a single conduit for the resolution of personnel issues, purchasing and vendor management, organizational development and training, performance management, and recruitment and retention. The major benefit of a highly centralized model is that it creates the structure to ensure consistent interpretation and application of policies and procedures. The primary negative attribute of a centralized approach, especially in relatively small organizations, is that the number of central internal support staff who are available to support operations are limited. This can inhibit the responsiveness and negatively impact operating departments who are seeking to address issues that are impacting daily operations.

The Town of Enfield is operating with limited internal support services personnel, especially in Human Resources and in Finance/Procurement. Currently, there is one purchasing agent and two dedicated HR professionals for a Town of approximately 400 FTEs and over 700 positions. However, these limited positions also serve as the primary point of contact and central filter point for most HR and procurement processes. For example, the purchasing agent is the final approval authority for the development of all RFPs and bid specifications and, according to the Finance Department, will often complete five or more discrete reviews of each RFP. This can negatively impact the timeframe of projects and delay the execution of important service delivery contracts.

Though the scope of this study did not include a review of staffing levels in the Finance/Procurement and HR areas, one of the common goals expressed by the managers and employees within the Public Works Department was to improve the efficiency and timeliness of procurement and HR processes.

The most effective internal service models are those that provide a balance between centralized and decentralized service, providing professional support and guidance when needed while also creating the structure and support system necessary to enable departments to effectively and consistently manage issues and processes independently. The HR and the Procurement function are currently highly centralized operations but are limited by the number of staff available to deliver services. To address this issue and improve the timeliness of HR and procurement service delivery, it is appropriate to decentralize some HR and procurement responsibilities to the Public Works Department.

The Public Works Department is currently staffed with a Business Operations Manager who serves as the purchasing and HR liaison for the Department. With the recommended creation of Deputy Director – Capital Projects and Administration to serve as the budget and administrative manager for the Department, it is recommended that the Business Operations Manager position be expanded to include greater direct ownership of purchasing and HR processes. Under this approach, the Business Operations Manager would serve as the Department’s designated purchasing and HR professional and would be delegated process oversight and management responsibilities by the Finance and HR Departments. These Departments would still provide an advisory and oversight role, but day-to-day process management of things like the hiring process, the procurement and contracting process, and employee development and training, would be the responsibility of the Business Operations Manager. This expanded authority is necessary to ensure timely support of departmental operations.

It is important to emphasize that the success of the recommendation is fundamentally influenced by the ability of internal service and control departments to facilitate and support efficiency through decentralization. This expectation should be set by the Town Manager.

**RECOMMENDATION 27: Develop service level agreements to outline purchasing, human resources, and information technology services performance expectations.**

The previous recommendation calls for decentralization of human resources management and purchasing authority to the Public Works Department. However, the Public Works Department will still need to rely on the Human Resources Department and the Purchasing Coordinator for guidance and support. It will be important to delineate the role of Public Works personnel and HR and Purchasing personnel to set a reasonable and functional division of responsibilities as well as performance expectations. Similarly, the Department will need significant support from IT to develop and implement a functional work order system that integrates with Munis. These expectations should be negotiated and outlined in formal service level agreements between the Public Works Department, as the customer department, and the Human Resources, Finance, and IT Departments.

For example, as an internal services function, one of the most important roles of Human Resources is to ensure departments in the organization have qualified staff to fill each of its authorized positions. This includes helping departments minimize the time a position remains vacant. The need to enhance the timeliness of recruitment efforts was one of the key themes identified in conversations with the department personnel. It will be important to set clear timeline targets for HR and department personnel within each step of the hiring process to ensure that positions are filled quickly and operations are minimally impacted by vacancies.

Similarly, it is important to set goals and targets regarding the number of days a typical RFP bid process should take. The target time should be based on the minimum amount of days required to make a procurement award given the Town's code requirements and current policies. Formalizing a target procurement time is important for several reasons. First, a formal goal creates service level expectations for procurement staff as well as internal customers regarding the average amount of time involved in significant procurements. These goals also serve as useful indicators of staff performance and allow the Department to set reasonable expectations regarding its ability to provide service given current staffing levels.

The Director of Public Works should begin a process of meeting at least biweekly with the Director of Finance and the Director of Human Resources to cooperatively develop service level agreements that outline reasonable performance expectations. Once the agreements are developed and adopted, the Director of Public Works should meet with the Director of Finance and the Director of Human Resources at least quarterly to review performance and discuss and resolve any process challenges that arise.

## Conclusion

In order for the Town of Enfield Public Works Department to adequately meet the long-term needs of the community, a more intentional approach to planning and executing its responsibilities is necessary. This report includes recommendations to help the Department improve in the following areas: leadership and management, work planning and tracking, Custodial Services, Refuse and Resource Management, Buildings and Grounds Maintenance, Highway Maintenance, Fleet Management, Water Pollution Control, Cost Recovery, and Support Services. The final recommended organizational structure is included in Appendix C.

Implementation of these recommendations will cost an estimated \$566,500. However, because most of the recommendations are intended to enable the Department to complete preventative maintenance activities that will save the Town money in the long-term, these costs should be considered an investment in the Department’s (and the Town’s) future. Several of the recommendations will require policy choices be made during implementation, so cost savings could not be estimated and are therefore not included in the net cost calculation. A summary of the estimated known cost implications associated with each of the recommendations is included in the following table. Several of the recommendations will require that policy choices are made during implementation, so cost savings could not be estimated and are therefore not included in the net cost calculation. However, those additional potential cost savings are noted where applicable.

Recommendation Number	Recommendation Title	Cost Impact/(Savings)
<b>Leadership and Management</b>		
1	Reclassify Assistant Director position as Deputy Director – Operations position and consolidate all operations functions.	\$5,000
<b>Work Planning and Tracking</b>		
6	Implement a work order system to track and assign work.	_14
7	Implement a service request system to track complaints and requests.	_15
<b>Custodial Services</b>		
8	Convert 11 part-time Custodian positions into three full-time Custodian positions.	(\$37,500)
<b>Refuse &amp; Resource Management</b>		
9	Modify collection schedule to more efficiently deploy Refuse & Resource Management resources.	(\$81,000)
10	Expand cross-training of employees to support highway, building, and grounds maintenance operations and create a Complaint Response Team.	_16
<b>Buildings &amp; Grounds Maintenance</b>		
11	Staff Building Maintenance function so preventative maintenance is completed.	\$340,000
<b>Highway Maintenance</b>		

<sup>14</sup> Cost impact will depend on software selected

<sup>15</sup> Cost impact will depend on software selected

<sup>16</sup> Potential cost savings of \$150,000 if crack sealing can be completed in-house rather than by a contractor.

Recommendation Number	Recommendation Title	Cost Impact/(Savings)
<b>Water Pollution Control</b>		
17	Adopt new deployment approach and begin completing preventative maintenance on both the WPC Plant and the sewer collection system.	\$240,000
19	Create a Laboratory Technician position.	\$80,000
20	Hire a seasonal employee to mow the WPC Plant and pump stations.	\$20,000
<b>Cost Recovery</b>		
16	Begin charging customer departments for the full cost of vehicle maintenance.	_17
24	Evaluate opportunities to generate additional revenue from solid waste services.	_18
<b>NET COST</b>		<b>\$566,500</b>

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<sup>17</sup> Potential for cost savings

<sup>18</sup> Potential for cost savings of approximately \$455,000 (\$200,000 per year by charging for collection of additional refuse containers as this is what West Hartford brings in; \$200,000 from closing the transfer station; and \$55,000 by increasing the diversion rate to 35% assuming a Recycling Coordinator is hired for a total cost of \$80,000)

## Appendix A: Benchmarking Research Summary

To inform the Organizational Effectiveness and Efficiency Study, the Town asked The Novak Consulting Group to gather information about the budget and staffing level of the public works departments in nine comparison communities. The results of this research are summarized in this section. While the data gleaned from the benchmarking of budget and staffing levels can be interesting, decisions should not be based solely on such comparisons. One organization may have more staff or a larger budget, but that may be because the organization provides a different mix of services or level of service.

The following table includes general information about the population and budget of the comparison communities.

**Table 8: Summary of Comparison Communities, FY2018<sup>19</sup>**

Community Name	Population			Budget		
	2010	2016	Change	Town	BOE	Total
New Britain	73,206	72,558	-1%	\$113,660,049	\$125,700,000	\$239,360,049
West Hartford	63,268	62,903	-1%	\$98,568,497	\$153,283,022	\$251,851,519
Bristol	60,477	60,147	-1%	\$100,800,352	\$110,361,593	\$211,161,945
East Hartford	51,252	50,237	-2%	\$94,795,336	\$90,436,419	\$185,231,755
Middletown	47,648	46,544	-2%	\$100,928,341	\$80,287,600	\$181,215,941
<b>Enfield</b>	<b>44,654</b>	<b>44,368</b>	<b>-1%</b>	<b>\$61,398,018</b>	<b>\$67,626,095</b>	<b>\$129,024,113</b>
Newington	30,562	30,423	0%	\$45,469,315	\$70,389,647	\$115,858,962
Vernon	29,179	29,148	0%	\$35,332,297	\$52,155,265	\$87,487,562
Windsor	29,044	28,875	-1%	\$43,391,660	\$67,471,330	\$110,862,990
Berlin	19,866	20,499	3%	\$37,221,312	\$45,989,973	\$83,211,285

The following tables include the budget and staffing level of the administration, engineering, building and grounds maintenance, custodial services, highway maintenance, fleet management, refuse and resource management, and water pollution control functions in each comparison community. This level of information for Middletown was not available online.

The Administration Division is difficult to compare to other communities as the duties of this function can vary greatly. For example, engineering activities are included in Enfield’s Administration Division budget while sanitation activities are included in Berlin’s administration budget. The services provided by an engineering function can vary significantly across organizations, so the staffing levels and budgets can vary widely (as evidenced by the fact that the staffing levels of the engineering functions in the comparison communities range from 3.0 FTEs to 12.0 FTEs). Some jurisdictions might contract out a larger portion of this work than other jurisdictions or might have more/larger active projects underway, both of which impact the workload of the engineering function.

Building, grounds maintenance, and custodial services are particularly difficult to benchmark because the inventory serviced and the level of service provided by each organization can vary greatly. For example, building and grounds maintenance staff in Berlin are responsible for operating the transfer station.

<sup>19</sup> Source: U.S. Census Bureau and Town Budget Documents

Meanwhile, custodial services for the Town and Board of Education organizations were separate in all of the comparison communities, which results in staff being responsible for servicing a much smaller facility footprint. In addition, custodial services in the comparison organizations are provided by the building maintenance function and are therefore included in that budget.

One of the most notable takeaways from the benchmarking research is that the Town of Enfield's Highway Maintenance Division has the lowest staffing level and lowest budget of any of the comparison organizations. However, the mix of services and service levels provided in each jurisdiction impact the workload of the function. The most appropriate function to compare with other communities is the Water Pollution Control function. The only comparison community that operates a wastewater treatment plant is Bristol, which is a similar-sized operation (10.75 MGD capacity plant, 15 pumping stations, and 230 miles of sewer lines compared with Enfield's 10 MGD capacity plant, 16 pumping stations, and 250 miles of sewer lines). However, Bristol's WPC Division has nearly twice the staffing level of Enfield's WPC Division. It should also be noted that four of the comparison communities contract out refuse and recycling collection services.

**Table 9: Budget and Staffing Levels of Select Divisions in Comparison Communities, FY2018** <sup>20</sup>

Community Name	Administration		Engineering		Buildings & Grounds Maintenance		Custodial Services	
	Budget	Staffing	Budget	Staffing	Budget	Staffing	Budget	Staffing
New Britain	\$433,335	5.0	\$373,300	9.0	\$1,956,817	20.0	-	-
West Hartford	\$561,016	3.0	\$212,678	1.75	\$4,625,498	26.5	-	14.0
Bristol	\$361,478	5.5	\$2,965,275	12.0	\$1,314,140	5.0	-	5.0
East Hartford	\$334,521	5.0	\$603,508	7.5	\$3,244,864	26.0	-	3.0
Middletown	Data Not Available							
Enfield	<b>\$749,795</b>	<b>5.0</b> <sup>21</sup>	- <sup>22</sup>	<b>3.0</b>	<b>\$5,149,538</b>	<b>23.0</b>	<b>\$4,551,740</b>	<b>55.0</b>
Newington	- <sup>23</sup>	-	\$317,113	3.5	\$2,734,640	18.3	-	1.0
Vernon	\$703,384	4.0	\$294,792	4.0	\$810,657	2.0	-	1.0
Windsor	\$575,000	5.2	\$561,090	5.7	\$2,312,250	16.8	-	-
Berlin	\$2,244,401 <sup>24</sup>	3.1	- <sup>25</sup>	-	\$2,258,066 <sup>26</sup>	25.7	-	-

<sup>20</sup> Blank areas represent spaces where data was not publicly available in the level of detail required.

<sup>21</sup> Two positions are funded through a five-year capital levy for transportation infrastructure capital maintenance.

<sup>22</sup> Included in Administration budget.

<sup>23</sup> Public Works Administration is not a separate division.

<sup>24</sup> Sanitation activities are part of the Administration budget.

<sup>25</sup> Engineering activities are part of the Administration division.

<sup>26</sup> Operation of the transfer station is included in the facility maintenance budget.

**Table 10: Budget and Staffing Levels of Select Divisions in Comparison Communities, FY2018**

Community Name	Highway Maintenance		Fleet Management		Refuse & Resource Management		Water Pollution Control	
	Budget	Staffing	Budget	Staffing	Budget	Staffing	Budget	Staffing
New Britain	\$3,383,709	17.0	\$1,941,117	12.0	\$3,808,010	4.0	-	-
West Hartford	\$2,902,318	21.5	\$1,080,552	7.0	\$5,159,580	0.5 <sup>27</sup>	-	-
Bristol	\$3,293,170	33.0	\$2,773,365	10.0	\$1,052,420	17.5	\$6,884,500	25.0
East Hartford	\$2,691,052	28.0	\$1,508,911	8.0	\$2,480,054	12.0	-	-
Middletown	Data Not Available							
Enfield	<b>\$1,909,067</b>	<b>11.0</b>	<b>\$1,344,007</b>	<b>8.0</b>	<b>\$5,533,760</b>	<b>20.0</b>	\$4,112,122	<b>13.0</b>
Newington	\$1,944,501	16.5	\$577,259	6.0	\$2,139,729	0.9 <sup>28</sup>	-	-
Vernon	\$1,517,172	24.0	\$762,957	6.5	\$1,489,470	8.0	-	-
Windsor	\$2,968,690	14.0	\$772,210	3.6	-	-	-	-
Berlin	\$1,982,222	14.9	\$1,122,000	7.1	- <sup>29</sup>	-	-	-

<sup>27</sup> Sanitation services are contracted out.

<sup>28</sup> Sanitation services are contracted out.

<sup>29</sup> Sanitation activities are part of the Administration division.

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## Appendix B: Core Services Matrix

**Table 11: Current Service Offerings and Service Levels of the Public Works Department**

Division	Key Activities	Current Service Level	Best Practices Standard Not Being Met
<b>Buildings &amp; Grounds Maintenance</b>	Manage preventative maintenance for Town facilities	As time allows	Preventative maintenance schedules in place for each asset type and included in crew workplans
	Complete repairs in all 25 Town-owned facilities	Upon request	
	Manage contracts for services not provided in-house	Manage contract for carpet deep cleaning	
	Complete facility renovations and maintenance	Upon request	
	Plan for major repairs and replacement of Town facilities	<ul style="list-style-type: none"> <li>• As time allows</li> <li>• Joint Facilities Committee is developing replacement plan</li> </ul>	Replacement plans in place and funded based on reasonable lifecycle estimates for each asset type
	Snow plan support for downtown, Town buildings and schools	As needed	
	Support special events (traffic control, set up, tear down, etc.)	Upon request	
	Inspect 14 playgrounds	As time allows	Inspect playgrounds at least annually
<b>Custodial Services</b>	Perform ball field maintenance on approximately 30 fields	<ul style="list-style-type: none"> <li>• Mow and line fields seven days per week from April through October</li> <li>• Empty trash and clean fields</li> <li>• Complete irrigation system maintenance as needed</li> </ul>	
	Clean 1.4 million square feet of Town facilities	<ul style="list-style-type: none"> <li>• Follow established cleaning schedules in place for each facility</li> <li>• Respond to requests for services immediately</li> </ul>	
	Manage contracts for services not provided in-house	Monitor contractor quality	
<b>Highway Maintenance</b>	Patch potholes in 182 miles of Town roads	Upon request	

Division	Key Activities	Current Service Level	Best Practices Standard Not Being Met
	Mow rights-of-way and around Town facilities	<ul style="list-style-type: none"> <li>Mow entire Town in accordance with mowing schedule</li> <li>Respond to requests</li> </ul>	
	Clean catch basins	Clean catch basins once every other year	
	Repair catch basins	Upon request	
	Pretreat streets	Before all winter weather events	
	Plow streets	Plow all 14 routes continuously during winter weather events	
	Sweep streets	<ul style="list-style-type: none"> <li>Sweep entire Town once in the spring</li> <li>Sweep downtown twice per month</li> </ul>	
	Replace signs	<ul style="list-style-type: none"> <li>Upon request</li> <li>Purchase blanks</li> <li>Print signs</li> </ul>	Sign inspection and replacement program in accordance with Section 2A.08 of the Manual on Uniform Traffic Control Devices (MUTCD)
	Paint crosswalks	Once per year	
	Support special events (traffic control, setup, teardown, etc.)	Upon request	
	Trim trees	Upon request	
	Eviction services	Upon request	
<b>Refuse &amp; Resource Management</b>	Collect residential refuse	Collect refuse every week	
	Collect residential recycling	Collect recycling every other week	
	Pick up bulk items	Upon request on Wednesdays - \$100 fee	
	Pick up yard waste	Once per week April through December	
	Pick up leaves	Collect bagged leaves during the month of November	
	Collect commercial refuse and recycling	Based upon contract	
	Collect from Town buildings and schools	Weekly to daily, depending on facility	
	Operate transfer station	Open five days per week 7:45am-2:45pm	
<b>Fleet Management</b>	Acquire and dispose of vehicles	Replacement policy in place but not abiding by schedule and not reliably disposing of vehicles	Vehicles are replaced in accordance with adopted replacement plan, which is developed in accordance with user

Division	Key Activities	Current Service Level	Best Practices Standard Not Being Met
			departments, and disposal policy in place
	Manage preventative maintenance of Town vehicles	<ul style="list-style-type: none"> <li>Notification system notifies operators of need for planned service</li> <li>Provide same-day preventative maintenance services</li> </ul>	
	Repair all Town-owned vehicles	<ul style="list-style-type: none"> <li>Repair 444 City fleet units from 7am-11:30pm</li> </ul>	
	Manage fuel resources	<ul style="list-style-type: none"> <li>Maintain three fueling locations</li> <li>Track fuel usage</li> </ul>	
	Manage parts inventory	<ul style="list-style-type: none"> <li>Parts inventory tracked manually</li> <li>Mechanics tasked with ordering parts</li> </ul>	Inventory of parts is managed, which includes: using a program to track inventory, marking items stored as inventory, and developing procedures for disposing of parts
<b>Roads/Engineering</b>	Develop and maintain standards for public infrastructure	Town design standards in place	
	Conduct condition inspections and manage public assets including streets, freshwater dam, parking lots, school facilities, and storm drains	Included in five-year levy	
	Manage contracts for design of Town capital improvement projects	Manage contracts	
	Manage contracts for pavement maintenance services not provided in-house	Manage crack sealing (30 miles per year) and reconstruction contracts	
	Manage contracts for construction inspection services not provided in-house	Manage contracts	
	Permit and inspect all work by contractors in the public right of way	As needed	
	Review development applications	As needed	
<b>Administration</b>	Engage in strategic planning and work planning	Department has a mission statement	Department strategic plan in place. Workplans of divisions and individuals linked to strategic plan

Division	Key Activities	Current Service Level	Best Practices Standard Not Being Met
	Provide budget and financial management	As needed	
	Provide administrative support	As needed	
	Manage and provide necessary training and address safety issues	Participate in Town-, HR-, and Union-led safety committees	

## Appendix C: Proposed Organizational Structure

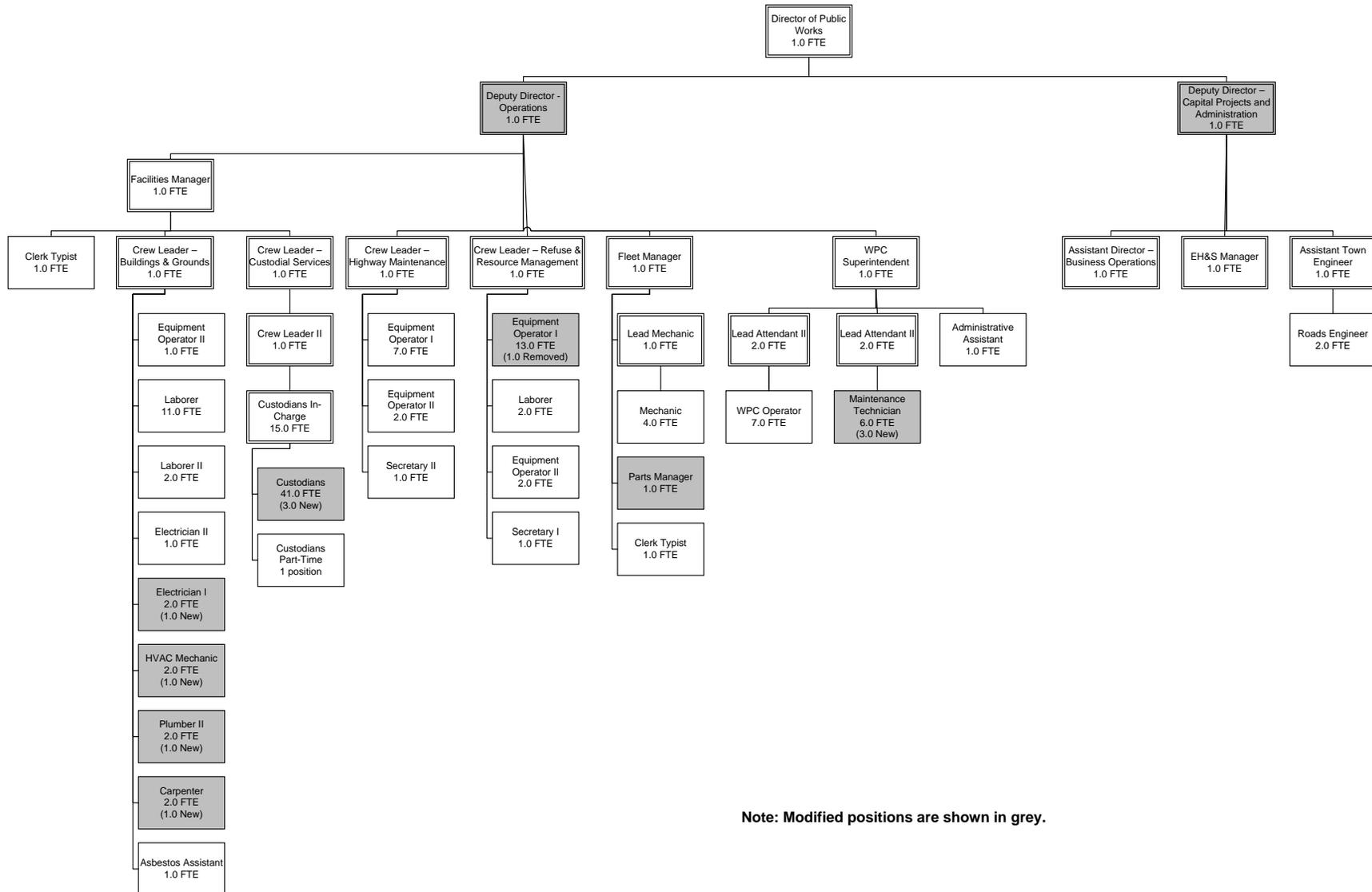


Figure 9: Proposed Organizational Structure