



*Welcome to the*

**TOWN OF BROOKHAVEN**



# FIRE DISTRICT DISSOLUTION STUDY



*Presented by:*



Emergency Services Consulting *International*

25200 SW Parkway Ave. Suite 3 • Wilsonville, Oregon 97070

www.esci.us • 800-757-3724

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# Town of Brookhaven New York

## Fire District Dissolution Study

**Prepared By:**  
Phil Kouwe  
Kent Greene  
Ernie Mitchell  
Mike Price  
Don Stewart  
Lane Wintermute



**Emergency Services Consulting  
*International***

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Daniel Panico, District 6  
Martin Haley, Commissioner of Building and  
Fire Prevention  
John Dembek, Chief Fire Marshal  
Teddi Navins, Sec. to the Commissioner  
Marie Michel, Assistant Town Attorney

### **Gordon Heights Fire District**

James Kelly, Chairman  
Avery Dean, Vice Chairman  
Carter L. Brown, Commissioner  
Maryanne Owens, Commissioner  
Alex Hanson, Commissioner  
Erton Rudder, Chief of Department  
Eileen Berrios-Pryor, Treasurer  
Diana Brown, Secretary

### **Coram Fire District**

Thomas Lyon, Chairman  
Vandorn Johnson, Commissioner  
Jerome A. Delli Bovi, Commissioner  
Steven Yalamas, Commissioner  
Timothy Heidrich, Commissioner

### **Medford Fire District**

Joseph DeStefano, Chairman  
Frank Grande, Vice Chairman  
Richard Piquette, Commissioner  
Joseph Themann, Commissioner  
Richard D. Coleman, Commissioner

### **Middle Island Fire District**

Walter A. Olszewski, Chairman  
Christopher Campo, Commissioner  
Jeffrey Davis, Commissioner  
Nick Paglia, Commissioner  
Scott Thebold, Commissioner

### **Yaphank Fire District**

Patrick Accardi, Chairman  
Donald Schaaf, Commissioner  
William Peters, Jr., Commissioner  
Herbert Davis, Commissioner  
Gregory Sandell, Commissioner

### **Community Groups**

Greater Gordon Heights Civic Association  
Coram Civic Association  
The Longwood Alliance  
Middle Island Civic Association  
Yaphank Taxpayers & Civic Association  
Medford Taxpayers  
Coalition to Preserve GHFD  
Gordon Heights Ministerial Association



## Executive Summary

### **Introduction**

This report is the result of a request by the Town of Brookhaven, New York, for Emergency Services Consulting International (ESCI) to conduct a Fire District Dissolution Study of the Gordon Heights Fire District. The genesis of this study was a petition filed by a simple majority of residents of the Gordon Heights Fire District requesting that the Town, the governing authority over the establishment, modification, and dissolution of fire districts within the town, dissolve the fire district due to excessive taxation compared to the fire districts that surround Gordon Heights. The Town of Brookhaven has opted to thoroughly evaluate the operations of Gordon Heights Fire District prior to holding a public hearing on the petition or taking action on potential dissolution.

### **Current Conditions**

The Gordon Heights Fire District (GHFD) provides fire protection and advanced life support (ALS) emergency medical transport services to a community area known as Gordon Heights in the Town of Brookhaven, Suffolk County, New York. The department began providing services in 1947 as a volunteer fire association. The first fire equipment was purchased in 1948 and the Gordon Heights Fire District was officially formed in 1951. The District operates under a commission-chief form of governance, and the Board of Fire Commissioners is provided with necessary power and authority to govern the provision of fire protection and emergency services.

GHFD provides emergency services to a population of 2,201 in an area of 1.7 square miles. The area served by the District is experiencing very limited growth. The District's services are provided from one fire station. The District maintains two fire engines, one aerial truck, one heavy rescue truck, two ALS quick-response vehicles, two ambulances, and two wildland firefighting vehicles, along with two fire police utility vehicles, one utility pick-up truck, and three staff cars. There are 67 individuals involved in delivering these services to the jurisdiction. Primary staffing coverage for emergency response is through the use of on-call responders coming from home or work, along with one emergency medical technician that is on duty 24 hours a day.

The Board of Commissioners establishes budget policies and guidelines through the District Treasurer. The treasurer has responsibility for coordinating the preparation of the budget and for providing it to the Board for approval. The District uses a one-year budget cycle to prepare the operating budget. The Board approves the budget and holds a public hearing for resident input to the proposed budget. After the public hearing, the budget is modified (if required) and approved by the Board to become the adopted budget. Although the Town of Brookhaven is not involved in the preparation or review of the District budget, the Town's Tax Receipts Office receives tax payments and forwards the proceeds to the Town's Finance Department. The Finance Department allocates all District funds received to the District based on appraised value and tax rate. GHFD revenue is primarily generated by property taxes. For the 2010 budget, 98.74 percent of revenue was from property taxes.

GHFD financial records are validated with an annual independent audit conducted in accordance with standards applicable to financial audits contained in the Government Auditing Standards issued by the Comptroller General of the United States

GHFD currently has two outstanding commitments for debt. The District has issued serial bonds for improvements to the fire station; the bonds mature in June 2012. The other commitment is for the lease of the 75' aerial from E-One. The final payment on this lease will be made in August 2010.

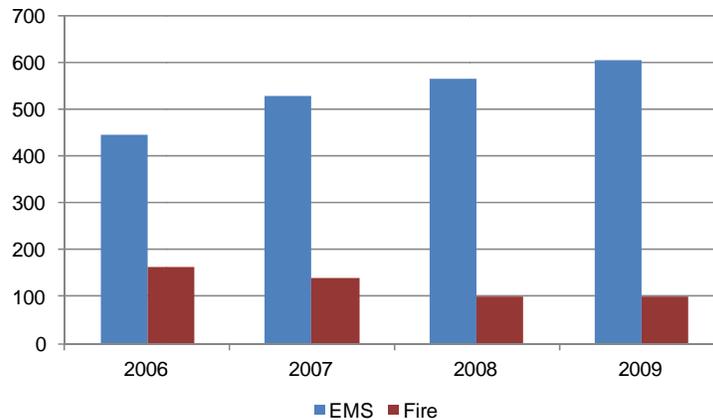
Gordon Height Fire District's 2010 tax rate was \$60.83. A detailed analysis of the 2010 budget is compared to the previous four years of actual data and shown in the following table.

**Town of Brookhaven, NY – Fire District Dissolution Study**

District TAV	\$2,281,124	\$2,321,306	\$2,332,677	\$2,318,301	\$2,297,417
Expense Category	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Actual 2010
Personnel Services	\$324,503	\$338,229	\$318,235	\$354,789	\$371,849
Business Operations	\$99,530	\$88,936	\$114,129	\$96,148	\$114,500
Business Administration	\$115,698	\$112,186	\$52,333	\$80,954	\$135,500
Bond and Lease Payments	\$86,977	\$86,057	\$85,137	\$89,217	\$88,068
Vehicles	\$64,512	\$46,977	\$105,853	\$45,009	\$60,000
Building and Grounds	\$99,031	\$145,066	\$101,855	\$153,404	\$123,200
Communications	\$38,961	\$31,961	\$48,237	\$44,515	\$43,500
Fire and Rescue	\$67,110	\$93,493	\$114,580	\$96,210	\$105,282
Social Security	\$24,824	\$25,873	\$25,318	\$27,067	\$28,500
Insurance Exempt	\$135,141	\$148,862	\$122,538	\$138,634	\$165,000
Fund Transfers	\$355,312	\$418,018	\$428,629	\$262,587	\$180,000
Non-Property Tax Revenue	(\$35,449)	(\$74,530)	(\$155,437)	(\$25,396)	(\$17,900)
<b>Total Expenditures</b>	<b>\$1,376,150</b>	<b>\$1,461,128</b>	<b>\$1,361,408</b>	<b>\$1,363,138</b>	<b>\$1,397,499</b>
<b>% Change from Previous Year</b>		6.17	-6.82	0.13	2.52
<b>Tax Rate</b>	60.33	62.94	58.36	58.80	60.83

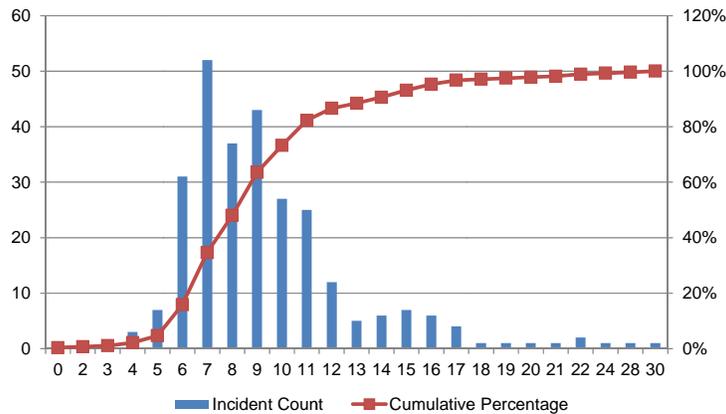
The residents of GHFD have petitioned the Town of Brookhaven to take action against the District due to the high cost of fire protection in comparison to adjacent Districts based on the tax rates charged to each home owner. To understand the issue in the eyes of the tax payers, several comparative tables are provided in this report depicting the total assessed taxable value of the 39 fire districts and 10 ambulance districts in the Town of Brookhaven, the total budget for each district, and the tax rate for each district. GHFD is ranked first with regard to tax rate for the Town. For fire districts, GHFD is \$28.613 higher than the number two-ranked Coram Fire District; GHFD's tax rate is 88.9 percent higher than Coram's.

The following illustration is a representation of service demand experienced by GHFD over the last four years.

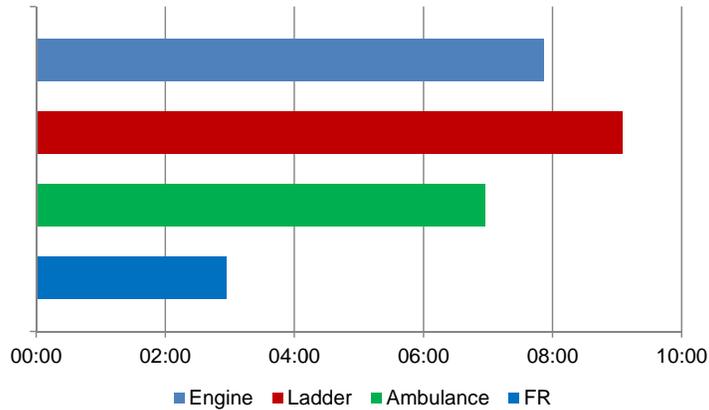


GHFD’s overall service demand is comprised primarily of emergency medical services incidents. EMS incidents have increased steadily over the past four years while fire incidents have declined proportionately. GHFD’s overall incident rate is extremely high. Using national regional median numbers, the expected usage rate for most populations is approximately 10 percent. In other words, a population of 1,000 would produce an approximate service demand of 100 incidents per year. Based on the resident population of GHFD, an estimated service demand of around 300 incidents annually would be expected; GHFD’s workload greatly exceeds this number. GHFD also handles an unusually high number of mutual aid responses. In 2006, 29.5 percent of the GHFD overall workload was for mutual aid; in 2007 that figure climbed to 31.3 percent. Although the mutual aid percentage is reduced in 2008 and 2009 to 22.9 percent and 22.0 percent, respectively, data provided for those years did not separate out mutual aid responses for fire, only for EMS. The service demand study is presented in detail in this report, including temporal and geographic distribution analysis.

The following chart illustrates the response time history for GHFD over the period January 1, 2006, through December 31, 2009.



The most frequently recorded response time for calls is within the seventh minute. The 90<sup>th</sup> percentile for engine responses is 14 minutes 43 seconds total response time from time of dispatch. There are several factors that affect overall response time, including but not limited to weather, distance, construction, and traffic congestion. However, one element of the overall response time performance that firefighters can control is the turnout time interval—the time it takes for personnel to respond to the station, board the apparatus, and head out of the station. The following figure illustrates only the turnout time of the first, second, and third apparatus measured on the average.



The following table summarizes the information contained in the preceding paragraphs and figures as well as provides comparisons to the National Fire Protection Association (NFPA) *Standard 1720*.

Performance Measure	Fractile	NFPA 1720 Urban	GHFD
Turnout	90 <sup>th</sup> Percentile	1:00	10:59
Total Response	90 <sup>th</sup> Percentile	9:00	14:43

As indicated in the figure above, GHFD has a turnout time 9 minutes 59 seconds longer than the recommended standard when measured at the 90<sup>th</sup> percentile. Similarly, GHFD total response times for an engine response are 5 minutes 43 seconds longer than the recommended standard when measured at the 90<sup>th</sup> percentile. Additional analysis of response time and performance is provided within the report.

**Future Service Delivery Options**

This section of the report identifies strategies and recommendations based on several alternatives ranging from status quo to dissolution of the District. The discussion included with each presented alternative includes recommendations, estimated costs, operational impacts, and social considerations. Before the alternatives are presented, however, discussion is provided in regard to continuation of emergency medical services and how the GHFD budget could be modified to reduce the tax burden on the community.

**EMS Services**

The provision of emergency medical services (EMS) throughout the Town of Brookhaven and specifically the Gordon Heights Fire District is an enormous undertaking and comprises a large percentage of the overall service demand and operating budget. ESCI calculated that

approximately \$32.588 of the GHFD total rate is used to support the EMS function. The following figure illustrates how this calculated tax rate compares with other ambulance providers within the area.

Ambulance Provider	Tax Rate 2010 to Support EMS
Gordon Heights	32.588
Shirley	12.765
Mastic Beach	10.137
East Port/East Moriches	9.387
Mastic	9.110
Medford	8.066
South County	6.369
Manorville	5.964
Mt. Sinai	4.463

Based on response information from 2009, GHFD responded to 605 EMS incidents (155 of which were mutual aid responses to neighboring jurisdictions). This calculates to a per incident actual cost of \$1,247.37. In comparison, Medford Ambulance operated on a 2009 budget of \$1,170,192 with a workload of 2,019 incidents for a per incident rate of \$579.59.

Understanding that the provision of EMS within the Gordon Heights community is a necessity, the question arises as to how to best deliver that service. There are four additional ambulance providers surrounding Gordon Heights: Coram Fire District (CFD), Medford Volunteer Ambulance (MVAC), Middle Island Fire District (MIFD), and Yaphank Fire District (YFD). The feasibility of merging the current GHFD EMS function into these other agencies was evaluated and presented in the report.

It is unlikely that Coram Fire Department could absorb the additional emergency medical services workload within the Gordon Heights community without adding personnel and resources. In addition, based on the distribution of incidents within GHFD, the majority of EMS workload is occurring in the south-central portion of the District. Although CFD could respond to incidents in the northern portion of the District, response times to a majority of incidents would be extended. CFD has formally stated that the department does not believe it could absorb the additional EMS workload with GHFD nor does it desire to see the current EMS services eliminated.

As for Medford Volunteer Ambulance Company, based on Article 12-A. § 209-a. 1, an ambulance district is considered to be a type of “improvement district” and, therefore, the Town has the authority to establish or expand the existing district after following procedural guidelines outlined in Article 12-A. § 209-e of the Laws of New York. However, based on the deployment of MVAC resources combined with already high unit hour utilization, it is unlikely that the agency could absorb the additional EMS workload within GHFD without adding resources. Since Medford is an ambulance district, there is an opportunity in place to charge for services. ESCI calculates the gross potential net revenue to be \$68,272. Although this potential net revenue would not nearly offset the costs associated with operations of EMS within Gordon Heights, the collection of at least some revenue could be used to offset the overall tax burden facing the community currently.

Based on facility deployment, Middle Island Fire District is best located to absorb the current EMS workload within GHFD, particularly in the northern half of the District. Incidents in the southern half of the District, however, would in all likelihood see an increase in response time if units were responding from the MIFD headquarters station. In addition, MIFD has stated formally that it does not believe it would be able to absorb the additional EMS workload from within the GHFD nor does it wish to see the current EMS services eliminated from the area.

Yaphank Fire District has historically experienced a lower EMS workload than the surrounding providers with only 509 incidents in 2009 with a corresponding unit hour utilization that was the lowest in the region. YFD could potentially reach a small portion of EMS incidents in the extreme southern portion of the District quickly from its current station location. Although YFD officials stated during interviews that they could absorb the current EMS workload within GHFD without difficulty, it is apparent from travel models and previous mutual aid relationships that this alternative would not likely be in the best interest of the community as a whole.

Considering that each of the foregoing scenarios assumed that the existing GHFD station would not be used in the deployment models, it is conceivable that if another provider assumed responsibility over EMS within Gordon Heights, the fire station could remain active and provide the new provider with a base of operations within Gordon Heights.

Budget Modifications

Many options exist for adjusting the delivery model for fire and EMS services to the Gordon Heights Fire District. One option is to review and significantly reduce the current operating costs of the District. Reducing budget costs are never easy and will impact the lives of the people affected by the changes. However, the residents of Gordon Heights Fire District have expressed strong concerns regarding high operating costs.

ESCI's financial analyst prepared a model operating budget for the Gordon Heights Fire District, which is presented in the report. The model budget depicts a 39.54 percent reduction in total budget cost and a tax rate of \$37.25 if ESCI's recommended modifications are made. Likewise, if another district assumed control and operation of the GHFD area and the current station remained open and operational, ESCI has calculated that the overall budget would see a reduction of 47.25 percent in total costs. Further, if the current GHFD station were to be closed and services provided from a neighboring jurisdiction, a 96.12 percent reduction in total costs would be realized (some necessary contractual issues and resulting transfer of costs to the new department providing service to the area would continue). ESCI's model budget was used to evaluate the feasibility of several dissolution strategies.

**Analysis and Impacts of Dissolution and Alternatives**

The analysis and impacts of dissolution alternatives presented in the report are the result of extensive analysis of NYS law, operational guidelines and practices of GHFD as well as those departments surrounding the District, available financial data regarding budgets, funding, and taxes, as well as numerous interview with community stakeholders. As provided in the full report, each option presented includes discussion, policy actions, operational impact, fiscal impact, social considerations, feasibility and likelihood of success, and potential impediments.

Option A- Status Quo

It is the opinion of ESCI that if the District alters its methods of administration, oversight, and operational policies, the current tax rate can be substantially reduced, thereby relieving the burden on the community. Methods to make these alterations through the reduction of equipment, career staff, and unnecessary expenditures were addressed in ESCI's model budget. The feasibility or likelihood of success of this strategy will depend on the commitment of the elected and appointed leadership of GHFD. Acceptance of the will of the community and a

willingness to change will greatly increase the likelihood that this strategy will succeed and GHFD will continue to exist in a sustainable manner.

*Option B – Dissolution and Consolidation with Another District*

Although the original petition that was the impetus for this study called for the dissolution of GHFD, the impact of that decision must be determined, specifically in regard to how the surrounding agencies' workload would be impacted if the district were consolidated with one or more neighboring districts. According to NYS Law, the Town of Brookhaven has the authority to alter fire districts based on agreement between two or more districts. The Town also has the authority to dissolve fire districts based on the method of petition used in this case. In order to a merger or consolidation of fire districts to occur, one or more of the surrounding districts- Coram FD, Medford FD (Medford Ambulance), Middle Island FD, and Yaphank FD- would need to agree to assume control of all or a portion of the area previously served by GHFD. In addition, determination would need to be made whether any such mergers or consolidations would keep the existing fire station in operation as an element of the merged district, or close the station and provide services from other existing facilities.

In order to identify the impact on service delivery from any of these possible configurations, ESCI used extensive analysis and travel time models to assess the resulting response time performance. ESCI initially modeled the impact if the GHFD station was closed and the district was merged into the surrounding districts on the sole basis of which district could provide services to various areas the fastest. Through this modeling it was determined that closing the GHFD station completely would result in increasing the average response time for the existing district area by more than 2 minutes 46 seconds. This would represent a 46 percent increase in average response time of the first responder EMS unit and a 23 percent increase in the average response time of an engine. The maximum travel time to any incident would increase by 1 minute 6 seconds. In light of the information above, irrespective of the strategy implemented with regard to governance and oversight of GHFD, keeping the Gordon Heights fire station in operation would have the least impact on response times for the greatest number of incidents when compared to what this geographic area as a whole experiences now.

Financial models were used to assess the impact of each of the consolidation/merger strategies on the existing tax rates of the surrounding districts.

- The consolidation of Yaphank and Gordon Heights Fire Districts would result in an increase in Yaphank's tax rate by \$4.076 per hundred and a decrease in Gordon Height's tax rate by \$10.805 per hundred using ESCI's modeled budget (a reduction of \$34.39 per hundred from GHFD's existing 2010 rate).
- The consolidation of Coram and Gordon Heights Fire Districts would result in an increase in Coram's tax rate by \$0.599 per hundred and a decrease in Gordon Height's tax rate by \$4.434 per hundred using ESCI's model budget (a reduction of \$28.014 per hundred from GHFD's existing 2010 rate).
- The consolidation of Middle Island and Gordon Heights Fire Districts would result in an increase in Middle Island's tax rate by \$0.934 per hundred and a decrease in Gordon Height's tax rate by \$4.793 per hundred using ESCI's model budget (a reduction of \$28.373 per hundred from GHFD's existing 2010 rate).
- The consolidation of Medford Fire and Gordon Heights Fire District's would result in an increase in Medford Fire's tax rate by \$2.259 per hundred and an increase in Gordon Height's tax rate by \$3.349 for per hundred, calculated for fire protection only. The associated consolidation of Medford Ambulance District and Gordon Heights EMS District will result in an increase in Medford EMS's tax rate by \$1.562 per hundred and a decrease in Gordon Height's calculated EMS tax rate by \$15.772 per hundred for EMS.

If the existing GHFD area was divided up to multiple departments, the likelihood of success would depend on the District leadership and the retention of existing GHFD members and personnel. As discussed earlier, closure of the station could decrease service levels to the community, thereby creating an increased potential for strategy failure.

*Option C – Dissolution and Creation of a Fire Protection District (Ambulance District)*

Under NYS Law, Towns are not allowed to operate a fire department but do have the authority to establish a Fire Protection District within the boundaries of the Town and then contract fire suppression, rescue, and emergency medical services to one or more providers. Under this type of strategy, the Town establishes the tax rate based on a negotiated budget with one or more service providers, collects the taxes and then distributes the funds to the appropriate organizations. Service contracts can be negotiated annually or based on a multi-year agreement. The establishment of a separate Ambulance District is similar in many ways to the creation of a Fire Protection District, except that Ambulance Districts are considered 'Special Districts' by the State of New York and, therefore, fall under a separate statute than do Fire Protection Districts.

The fiscal impact of this strategy would be applied to the citizens of GHFD. If GHFD were dissolved, then the associated tax rate currently being levied on the resident property owners would also be eliminated. Based on the provider selected to provide service to the newly formed fire protection and ambulance districts, new tax rates would be determined and applied. The new tax rates could be substantially lower than the current rate. However, the property valuation within the current GHFD is not sufficient to adequately support the current level of service being provided. This would not change by simply converting the independent fire district to a Fire Protection District. This alternative would, however, give the Town of Brookhaven more control over the cost to provide services as well as the level of services provided.

The operational impact of this strategy would be based on how the Town approaches the process of selecting a service provider to be responsible for the fire protection district. The Town has two basic options: Solicit bids from providers as mentioned above or contract directly with the existing Gordon Heights Fire Department. Notice here that the ‘fire district’ will have been dissolved but the ‘fire department’ (the non-taxing 501(c)(3) not-for-profit membership corporation) would remain.

Under current state law, property of GHFD would need to be offered at public auction if the District is dissolved with sale proceeds going to retire existing debt. Remaining assets could then be transferred to the Town if not sold or transferred to another special district. It is ESCI’s recommendation that, if dissolution is approved, the Town work with GHFD in drafting an asset disposition plan that would transfer all assets to the Town just prior to the actual dissolution of the District. This would allow the Town to maintain the equipment and/or facility while potentially offering those items to the entity(s) contracted to provide service to the area.

In ESCI’s professional opinion, this strategy is ultimately feasible and has a high likelihood of success. This opinion is based on the following.

- Although GHFD would be dissolved, the not-for-profit volunteer fire department would continue to exist and could feasibly continue to deliver service to the community with only an alteration of the governance structure of the organization.
- A certain level of competition is generated through the potential bid process to deliver service to the Gordon Heights community, likely resulting in a lower cost of operations
- The Town would have a significant amount of input into the delivery of service and contract provisions for the delivery of service at an efficient and effective level to the Gordon Heights community.

Option D – Status Quo with Enhanced Financial Oversight

This strategy, in essence, is a combination of Options A and C in that it would require that GHFD take drastic measures to substantially reduce its operating budget, and therefore its tax rate, while submitting to an enhanced level of financial oversight by the Town of Brookhaven. By implementing this strategy, the Town of Brookhaven would be issuing an ultimatum to GHFD by insisting on action or facing potential dissolution. This would be similar to the Nassau County Finance Authority (NIFA). In the case of Nassau County, NIFA was granted authority through the Nassau County Interim Finance Authority Act, Chapter 84 of the Laws of 2000, as supplemented by Chapter 179, to review financial plans submitted, make recommendations, monitor compliance and impose certain controls on Nassau County's financial operations. NIFA is governed by a seven-member board appointed by the Governor. In the case of GHFD, the Town of Brookhaven Town Board is suggested to serve as the oversight board and work with GHFD in controlling expenditures and developing an operating budget commensurate with the community's expectations.

With the exception of a reduced administrative staff, a reduced number of physical assets, and a modified budget in line with that recommended in this report, the day-to-day operations of the department should not be significantly impacted by the implementation of this strategy.

This option is considered to be feasible, but the likelihood of success will be determined by the openness of the leadership of GHFD to accept an enhanced level of oversight and involvement by the Town in the operations of their organization.

**Findings, Recommendations and Plan of Implementation**

This section of the report identifies what ESCI believes is the best, most feasible, and most likely to succeed option of those presented previously.

In determining the most feasible options, ESCI has made certain findings and assumptions based on that data analyzed and the information provided by the groups and individuals interviewed throughout this process. Those findings and assumptions include:

- The sole purpose of the petition to dissolve GHFD was to reduce the tax rate levied by the District on the resident property owners.
- The District contains almost entirely residential properties with little to no commercial properties.

- The Gordon Heights Fire District does not follow the boundaries of the Gordon Heights community as defined by the U.S. Census Bureau.
- Certain portions of the Gordon Heights community have been excluded from the GHFD response area based on issues other than efficient travel time and operations.

The preferred option, in ESCI's professional opinion is two-fold and rests entirely on the willingness of the leadership of GHFD to take the necessary measures to ensure continued existence.

*Preferred Option 1: Strategy D – Status Quo with Enhanced Financial Oversight*

In ESCI's professional opinion, the most feasible strategy would be for GHFD to submit to enhanced oversight by the Town of Brookhaven and a commitment to a substantial reduction in expenditures as outlined in this report. This strategy would allow the District to retain its history, pride, and independence while proving to the community that the leadership and membership are willing to listen to the desires of the citizens and take the appropriate actions to reduce the tax burden on the community.

*Preferred Option 2: Option C – Dissolution and Creation of a Fire Protection District*

In the event that GHFD leadership is not willing to submit to enhanced oversight by the Town or fails to comply with the terms of the performance agreement discussed under Strategy D, the next preferred option for the Town would be to dissolve the District, create a fire protection district in its place, and contract for service with another provider.

**Conclusion**

The ESCI project team began collecting information concerning the Gordon Heights Fire District and the Town of Brookhaven in May 2010. The team members recognize that the report contains an extremely large quantity of information and ESCI would like to thank the elected and appointed officials of the Town of Brookhaven as well as the elected staff and members of Gordon Heights Fire District, Coram Fire District, Medford Fire Department, Medford Ambulance, Middle Island Fire District, and Yaphank Fire District for their tireless efforts in bringing this project to fruition. ESCI would also like to thank the various individuals and external organizations for their input, opinions, and candid conversations throughout this process. It is ESCI's sincere hope that the information contained in this report is utilized to its fullest extent and that the emergency services provided to the citizens of Gordon Heights and the surrounding areas are improved by its implementation.



## Evaluation of Current Conditions

This report is the result of a request by the Town of Brookhaven, New York, for Emergency Services Consulting International (ESCI) to conduct a Fire District Dissolution Study of the Gordon Heights Fire District. The genesis of this study was a petition filed by a simple majority of residents of the Gordon Heights Fire District requesting that the Town, the governing authority over the establishment, modification, and dissolution of fire districts within the town, dissolve the fire district due to excessive taxation compared to the fire districts that surround Gordon Heights. The laws of the State of New York in place at the time of the petition direct the Town to hold a public hearing on the matter and take appropriate action if it is determined to be in the public interest.

Although nothing in the law directs the Town to analytically evaluate the potential effects on the community if the District were to be dissolved, the Town of Brookhaven has opted to thoroughly evaluate the operations of Gordon Heights Fire District prior to holding a public hearing on the petition or taking action on potential dissolution. This report details the analysis conducted to determine the effects of dissolution as well as to find a potential alternative solution. It should be noted that, throughout this report, the terms 'District' and 'Department' are used interchangeably except where specifically identified.

### Organization Overview

The Gordon Heights Fire District (GHFD) provides fire protection and advanced life support (ALS) emergency medical transport services to a portion of the community area known as Gordon Heights in the state of New York. The response area includes a mix of older and newer residential homes and developments in Suffolk County and is situated on Long Island, about 60 miles east of New York City. The department began providing services in 1947 as a volunteer fire association. The first fire equipment was purchased in 1948 and the Gordon Heights Fire District was officially formed in 1951.

GHFD provides emergency services to a population of 2,201<sup>1</sup> in an area of 1.7 square miles. The area served by the District is experiencing very limited growth. The District's services are provided from one facility located within the jurisdiction. The District maintains a fleet of vehicles

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<sup>1</sup> U.S. Census Bureau, 2000 census data.

including two fire engines, one aerial truck, one heavy rescue truck, two ALS quick-response vehicles, two ambulances, and two wildland firefighting vehicles, along with specialty or utility units including two fire police utility vehicles, one utility pick-up truck, and three staff cars.

There are 67 individuals<sup>2</sup> involved in delivering these services to the jurisdiction. The District's primary management team includes a Chief, two Fire Captains, an EMS Captain, and a Fire Police Captain. A District Secretary, District Treasurer, part-time Mechanic, and part-time House Attendant provide additional support services. Primary staffing coverage for emergency response is through the use of on-call responders coming from home or work, along with one emergency medical technician that is on duty 24 hours a day.

The Insurance Services Office (ISO) reviews the fire protection resources within communities and provides a Community Fire Protection Rating system from which insurance rates are often based. The rating system evaluates three primary areas: the emergency communication and dispatch system, the department, and the community's pressurized hydrant or tanker-based water supply. The overall rating is then expressed as a number between 1 and 10, with 1 being the highest level of protection and 10 being unprotected or nearly so. As of the latest rating, ISO gave the service area a rating of Class 3.

The District provides a variety of services, including fire suppression, emergency medical transport, operations-level hazmat, structural collapse, vehicle extrication, trench rescue, water rescue, and ice rescue. The Brookhaven Town Hazardous Materials Response Team provides technician-level hazmat response. The Suffolk County Fire Rescue Communications provides emergency call receipt and dispatch service.

### **Governance and Lines of Authority**

The Gordon Heights Fire District is a formal special district, formed under the laws of the State of New York, which is provided the authority to levy taxes for operating a fire protection system.

The District operates under a commission-chief form of governance, and the Board of Fire Commissioners is provided with necessary power and authority to govern the provision of fire protection and emergency services in the designated jurisdiction. As the governmental authority, the powers include: organizing a fire protection system, appointing officers and members,

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<sup>2</sup> Current number at time of field research.

purchasing land and equipment, entering into contracts, authorizing issuance of bonds, and levying of taxes.

The role and authority of the Board of Fire Commissioners and the Fire Chief is further clarified within District Establishment Resolution of the Town of Brookhaven, the by-laws of the District, and written policy documents describing their function and tasks. The Fire Chief is a volunteer officer, elected by the District membership on an annual basis. The Board of Commissioners must formally approve the chief's appointment following the member election. The Fire Chief is then delegated the full operational authority over the members of the fire District.

### **Foundational Policy**

Organizations that operate efficiently are typically governed by clear policies that lay the foundation for effective organizational culture. GHFD maintains several primary policy manuals: the *Corporation By-Laws*, *Standard Operating Guidelines*, and *District Policies*.

The manuals were given a basic review for quality and content. The manuals were fairly well organized, and it appears that a great deal of time went into writing the various policies and procedures in a professional and clear manner. The documentation includes the appropriate policies either required by law or focused on reducing the risk of civil liability. These include a sexual harassment policy, workplace violence, and disciplinary policy. Other policies cover routine procedures, complaint handling, orientation of new members, uniform use, etc.

The *Standard Operating Guidelines* are reasonably organized, easy to understand and apply, and reflect the current industry standards and best practices. The procedures are reported to be reasonably up to date but with no prescribed system in place to review and update the procedures on a periodic basis.

### **Organizational Design**

A well-designed organizational structure should reflect the efficient assignment of responsibility and authority, allowing the organization to accomplish effectiveness by maximizing distribution of workload. The lines on an organizational chart simply clarify accountability, coordination and supervision. Thorough job descriptions should provide the details of each position and ensure that each individual's specific role is clear and centered on the overall mission of the organization.

A review of this agency's organizational chart reveals that it is organized in a typical top-down hierarchy. The organizational structure of the District demonstrates a clear unity of command in which each individual member reports to only one supervisor (within the context of any given position) and is aware to whom he or she is responsible for supervision and accountability.

The chief executive officer (fire chief) directly supervises five other individuals, including the captains and training officer. The chief's span of control falls within the range typically considered normal and acceptable. The fire chief has been provided with the disciplinary authority to suspend a member from active duty pending review by the Board of Fire Commissioners.

The District does not maintain a thorough and up-to-date set of job classifications and descriptions that accurately reflect the typical responsibilities and activities of the positions. The by-laws do contain brief paragraphs describing each position classification, but provide little detail. These paragraphs do not adequately describe the primary functions and activities, critical tasks, or levels of supervision and accountability.

The District does not currently maintain collective bargaining agreements (CBA) with any classification of employees within the organization.

### **Maintenance of History**

The Gordon Heights Fire District has some formal levels of history retention programs in place. Appropriate records of all corporate or municipal meetings are maintained in accordance with the laws of the state governing various types of public meetings and decisions involving public funds.

The District maintains a "scrapbook" or file containing items of historical significance, including pictures, newspaper articles, etc. These are helpful when updating a historical perspective of the organization and the major events in its development.

The District does not publish or distribute an annual report of activities and accomplishments, failing to provide any specific historical record or measurement of its annual performance.

### **Internal and External Communications**

Regular officers meetings take place in this agency about once per month and include all primary staff and officers. Minutes or summaries of regular officers meetings are not regularly made available or distributed for review by all members of the organization. Such an effort is recommended, as it encourages internal communications and permits members to share ideas on departmental issues, enhancing a feeling of empowerment among personnel.

Written, formal memorandums are regularly utilized for distribution of information, ensuring that all members receive critical data in an organized and consistent fashion. A systematic method for distribution of written communications is in place and is followed regularly in order to make certain that no members are left out of the information loop. When certain types of critical memos or policies are released, a system has been established for verification of the distribution to all personnel. This system provides a record of confirmation that the information was received and improves accountability.

Full member meetings are conducted once per month in a manner that provides personnel with an opportunity or forum for exchanging and discussing concerns, ideas, or issues directly with management personnel. No employee/member newsletter has been initiated. District bulletin boards are adequately controlled and organized, with information being sorted and updated on a regular basis.

District business email addresses have been issued to appropriate personnel. Individual member mailboxes or station/shift mailboxes are used to exchange important hard-copy documents and prevent missing or misplaced documents. Voicemail is in place for primary staff and officers through their cellular phones, permitting other members or the external customer to efficiently and quickly leave personal contact messages. The District publishes a community newsletter for distribution to the public on an occasional basis. The newsletter permits the release of specific and detailed information authored directly by the District.

### **Document Control and Security**

Records management is a critical function to any organization. A variety of uses are made of written records and, therefore, their integrity must be protected. State law requires public access to certain fire and EMS department documents and data. Clear written procedures are in place to provide for public records access through the District staff.

Paper records (hard copy files) are adequately secured with passage and/or container locks with limited access. Important computer files are backed-up to a secure data location on a regular and consistent basis.

The station is reported to be consistently locked and secured from unauthorized entry through an electronic locking system with Radio Frequency Identification (RFID) key fobs. Public access to the buildings is limited to business areas or when accompanied by an employee. Electronic key fobs can be shut off to prevent orphan keys and unauthorized entry. No security alarm systems are used to provide for automatic notification of unauthorized entry or break-in. Monitored fire alarm systems provide early smoke and fire detection for buildings, as well as an additional life-safety measure for occupants in the event of a fire.

District computers are programmed with password security on sensitive file access and software to provide an additional level of security and data integrity. Firewall protection is in place for computers accessing the internet and other outside servers. The protection is adequately up to date and capable of preventing most unauthorized network intrusions. Up-to-date virus protection software is utilized on all incoming email and files; operating systems are regularly scanned for undetected virus infection.

The agency maintains a current inventory of capital assets. A process is in place to maintain this inventory and new assets are logged and recorded at purchase. No business-related cash is routinely kept on the premises of the District, reducing or eliminating risks associated with burglary and theft. The use of any significant petty cash fund has been eliminated. General-use credit cards, such as VISA™ or MASTERCARD™, are issued to key district personnel, but strict account controls, low credit limits, and zero liability fraud protection are in place. Written, formal purchasing policies and procedures are in place and are strictly enforced. Virtually all purchases require specific purchase orders (POs) with appropriate approval signatures and appropriation verifications.

### **Reporting and Records**

The District utilizes records management software to enter and store incident information. The software is compliant with NFIRS (National Fire Incident Reporting System) standards, but the New York Department of State indicates that the District has not been regularly submitting its data as required. Training and maintenance records are also maintained electronically.

Personnel records are reported to be complete and up-to-date and maintained in a manner that protects private medical information. Records are maintained on employment history, discipline, commendations, work assignments, injuries, exposures, and leave time. Financial activities, including budgets, expenditures, revenues, purchase orders, and other encumbrances are kept in a financial records management software system permitting consistent and up-to-date monitoring of all financial activities and accounts.

The District uses a PC-based computer system, with Windows XP as its primary operating system, and all computers are networked to a district server.

### **Operating Budget and Financial Resources**

The Board of Commissioners establishes budget policies and guidelines through the District Treasurer. The treasurer has responsibility for coordinating the preparation of the budget and for providing it to the Board for approval. The Board oversees the fire chief in the managing the daily operations of the District.

The District uses a one-year budget cycle to prepare the operating budget. The Board approves the budget and holds a public hearing for resident input to the proposed budget. After the public hearing, the budget is modified (if required) and approved by the Board to become the adopted budget. Although the Town of Brookhaven is not involved in the preparation or review of the District budget, the Town's Tax Receipts Office receives tax payments and forwards the proceeds to the Town's Finance Department. The Finance Department allocates all District funds received to the District based on appraised value and tax rate. The allocation is not based on actual funds received by the District. At the end of the tax payment season, unpaid property taxes are turned over to the county for collection. Uncollected property taxes are not allocated back to the District but are absorbed by the county.

GHFD maintains budget and fund capital reserve accounts. Three reserve accounts are funded with each budget cycle. The table below gives a valuation of these reserve accounts as of December 31, 2009.

**Figure 1: Capital Fund Balances as of December 31, 2009**

<b>Capital Funds</b>	<b>Balance</b>
Equipment Reserve	6,184
Building Reserve	138,887
Truck Reserve	130,695
<b>Total Capital Fund Reserves</b>	<b>275,766</b>

GHFD prepares a five-year vehicle replacement and building capital plan. These plans are updated annually with the preparation of the budget. Due to the estimated life of fire apparatus, it is recommended that the vehicle replacement plan be extended to a minimum of 15 years. The requirement from these two plans should be used as the reserve fund budget amount in the year of the budget. In the 2010 budget, \$180,000 has been included for funding these reserves. However, the building and apparatus replacement plans provide vehicle replacement totaling \$75,000 and building replacement/renovation totaling \$57,000.

Financial control within the District is the responsibility of the treasurer and the fire chief. Financial reporting is provided monthly to the Board of Commissioners for review and approval.

GHFD financial records are validated with an annual independent audit. In 2009, the audit was conducted by Cullen & Danowski, LLP. The audit was conducted in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in the Government Auditing Standards issued by the Comptroller General of the United States. It is the opinion of the auditor that the financial information presented in 2009 fairly, in all material respects, represents the assets, liabilities, and fund balances of each fund.

GHFD has a Length of Service Award Program (LOSAP) which is a defined benefit for active volunteer firefighters. The program took effect in January 1, 1991. The program was established pursuant to Article 11-A of the General Municipal Law and provides municipally-funded pension-like benefits to facilitate the recruitment and retention of volunteer firefighters. The District is the sponsor of the program. Service credit is determined by the governing board of the sponsor, based on information certified to the governing board by the District. The District must retain all required records.

Active volunteer firefighters who have reached the age of 18 and who have completed one year of firefighting service are eligible to participate in the program. Participants acquire a non-

forfeitable right to a service award after being credited with five years of firefighting services or upon reaching program's entitlement age of 62. In general, an active firefighter is credited with one year of firefighting service for each calendar year after the establishment of the program during which he or she accumulates 50 points. Points are granted for performance of certain activities in accordance with a system established by the sponsor on the basis of a statutory list of activities and point values. A participant may also receive credit for five years of firefighting service rendered prior to the establishment of the program.

A participant's benefit under the program is the actuarial equivalent of a monthly payment for life equal to \$10 multiplied by the person's total number of years of firefighting service prior to January 1, 2002, plus \$20 multiplied by the years of service after January 1, 2002. The number of years of firefighting service cannot exceed 30 years. The program provides statutorily mandated death and disability payments. The program also provides optional line-of-duty disability benefits where the individual will be credited with five points for each full month during which they are disabled.

The governing board has retained and designated Hometown/RSA Consultants to assist in the administration of the program. The program administrator's primary responsibility is to administer the plan, compute participants' entitlements, authorize disbursements to participants, compute contribution amounts, maintain necessary records, and consult with the District on investment plans. Disbursements from the fund must be reviewed by the fire board and signed by at least two Commissioners. Program assets are held in trust by LOSAP legislation. The trust agreement currently in place is dated October 9, 2007.

The sponsor is required to retain an actuary to determine the amount of the sponsor's contributions to the plan. The actuary retained for this purpose is Harbridge Consulting Group, LLC. In 2009 the recommended contribution to the trust was \$75,766. GHFD's actual contribution for that year was \$32,529; \$43,237 below the recommended level.

Figure 2 provides a snapshot of the trust fund as of December 31, 2009.

Figure 2: LOSAP Financial Condition

Description	Amount
Actuarial Present Value of Benefits	\$843,523
Net Assets	\$740,221
<b>Unfunded Liability for Prior Service</b>	<b>\$103,302</b>

**Recommendation:**

- Any action taken by the Town of Brookhaven on restructuring of GHFD must include an action plan to satisfy the unfunded liability to the LOSAP program.

GHFD currently has two outstanding commitments for debt. The District has issued serial bonds for improvements to the fire station. The bonds mature in June 2012. The other commitment is for the lease of the 75' aerial from E-One. The final payment on this lease will be made in August 2010. The chart below provides a status of each encumbrance as of December 31, 2009.

Figure 3: GHFD Debt as of December 31, 2009

Date of Issue	Maturity Date	Description	Paying Agent	Interest Rate	Principle Balance
9/15/2001	8/4/2010	E-One 75' Aerial	E-One	4.900%	\$59,617
6/30/2003	6/30/2012	Building	Serial Bonds	4.600%	\$75,000
<b>Total</b>					<b>\$134,617</b>

**Recommendation:**

- Any action taken by the Town of Brookhaven on restructuring of GHFD must include an action plan to refinance or eliminate the debt on the building.

The GHFD uses a modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues and other financial resources are recognized as accrued when they become both measurable and available to finance expenditures of the current period. Expenditures are recognized when the fund liability is incurred with certain exceptions. The District's treasurer is responsible for managing all financial activities and oversees revenues, expenditures, investments, accounting, and debt.

GHFD revenue is primarily generated by property taxes. For the 2010 budget, 98.74 percent of revenue was from property taxes. In the 2010 budget, GHFD has included revenue from the

leasing of a newly constructed cell tower located at the fire station. This revenue represents 1.00 percent of budgeted income, as indicated in the following figure.

Figure 4: GHFD Revenue, 2006 – 2010

Revenue Source	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Actual 2010
Property Tax Revenue	\$1,476,161	\$1,476,165	\$1,421,510	\$1,397,518	\$1,397,499
Interest	\$28,599	\$26,503	\$10,146	\$2,500	\$3,500
Refund Prior Year	\$1,085	\$85	\$162	\$17	\$0
Sale of Equipment	\$0	\$2,500	\$4,600	\$10,052	\$0
Insurance Recovery	\$5,445	\$37,885	\$29,632	\$8,187	\$0
Grant	\$0	\$0	\$102,000	\$3,000	\$0
Rental Income	\$0	\$0	\$0	\$0	\$14,400
Other	\$321	\$7,588	\$8,897	\$1,640	\$0
<b>Total Revenue</b>	<b>\$1,511,610</b>	<b>\$1,550,695</b>	<b>\$1,576,947</b>	<b>\$1,422,915</b>	<b>\$1,415,399</b>
% of Revenue from Tax	97.65	95.19	90.14	98.22	98.74

### **Determining the Cost of Fire Protection**

Establishing the cost of fire protection in a community is an important part of evaluating the feasibility of other delivery strategies. By knowing the cost of the services as they exist and predicting the cost of that service after organizational changes are made, alternative fire models may be judged more fairly.

As part of the current systems evaluation of the GHFD, ESCI developed a computer-driven model to estimate the public cost of fire protection and emergency medical services. The baseline estimate is expressed in dollars and in terms of equivalent rate per \$100 of the assessed value of the District. The estimate provides a scale by which to measure the status quo against any proposed system change.

The adaptation of the District's budget to estimate public cost of fire service requires certain conventions and assumptions. Specifically, the budget of the agency may need to be reformatted, often combining line item expenditures of different governmental funds to reflect total public service cost.

Non-tax revenues specific to the District (such as fees for services) are identified. Revenue is corrected to allow for accumulation (or expenditure) of cash and for the averaged expenditure of contingencies, if any. Adjusted revenues are subtracted from expenditures to yield an estimate of general operating tax requirements. The resultant sum represents the amount of public tax

support required to sustain the given level of fire and emergency medical services, regardless of the source of the tax revenue.

There is, however, one point of emphasis. This analysis provides a “snapshot” estimate of the public tax cost for the current budgetary year. Many forces may act to change the level of tax support in the future, including changes in law, revenue, politics or contracts. This process uses current revenue and appropriation to generate an estimate of the amount of tax support relative to existing levels of fire and emergency medical services. The analysis allows comparison with the predicted cost of service; it does not predict the actual tax rate – current or future.

**Fire Protection District Tax Cost**

A detailed analysis of the 2010 budget is compared to the previous four years of actual data and shown in the following table.

**Figure 5: GHFD Expenditures, 2006 – 2010**

<b>District TAV</b>	<b>\$2,281,124</b>	<b>\$2,321,306</b>	<b>\$2,332,677</b>	<b>\$2,318,301</b>	<b>\$2,297,417</b>
<b>Expense Category</b>	<b>Actual 2006</b>	<b>Actual 2007</b>	<b>Actual 2008</b>	<b>Actual 2009</b>	<b>Actual 2010</b>
Personnel Services	\$324,503	\$338,229	\$318,235	\$354,789	\$371,849
Business Operations	\$99,530	\$88,936	\$114,129	\$96,148	\$114,500
Business Administration	\$115,698	\$112,186	\$52,333	\$80,954	\$135,500
Bond and Lease Payments	\$86,977	\$86,057	\$85,137	\$89,217	\$88,068
Vehicles	\$64,512	\$46,977	\$105,853	\$45,009	\$60,000
Building and Grounds	\$99,031	\$145,066	\$101,855	\$153,404	\$123,200
Communications	\$38,961	\$31,961	\$48,237	\$44,515	\$43,500
Fire and Rescue	\$67,110	\$93,493	\$114,580	\$96,210	\$105,282
Social Security	\$24,824	\$25,873	\$25,318	\$27,067	\$28,500
Insurance Exempt	\$135,141	\$148,862	\$122,538	\$138,634	\$165,000
Fund Transfers	\$355,312	\$418,018	\$428,629	\$262,587	\$180,000
Non-Property Tax Revenue	(\$35,449)	(\$74,530)	(\$155,437)	(\$25,396)	(\$17,900)
<b>Total Expenditures</b>	<b>\$1,376,150</b>	<b>\$1,461,128</b>	<b>\$1,361,408</b>	<b>\$1,363,138</b>	<b>\$1,397,499</b>
<b>% Change from Previous Year</b>		6.17	-6.82	0.13	2.52
<b>Tax Rate</b>	60.33	62.94	58.36	58.80	60.83

The budgeted tax rate for 2010 will require the payment of \$1,217 in district expense for a home with a Taxable Assessed Value (TAV) of \$200,000.

GHFD doesn't distinguish, for financial reporting, between fire and EMS costs of operations. To truly identify the cost of operations, ESCI analyzed 2010 budgeted expenses to create cost segregation between fire and EMS services. The allocation methodology used was reviewed and approved by the district treasurer. The following table depicts these costs.

Figure 6: Allocation of Expenses Between Fire and EMS, 2010

Expense Category	2010 Fire Budget	2010 EMS Budget	2010 Budget
Personnel Services	\$75,677	\$296,172	\$371,849
Business Operations	\$65,637	\$48,863	\$114,500
Business Administration	\$104,895	\$30,605	\$135,500
Bond and Lease Payments	\$81,576	\$6,492	\$88,068
Vehicles	\$13,884	\$46,116	\$60,000
Building and Grounds	\$69,313	\$53,887	\$123,200
Communications	\$8,703	\$34,797	\$43,500
Fire and Rescue	\$62,626	\$42,656	\$105,282
Social Security	\$5,800	\$22,700	\$28,500
Insurance Exempt	\$41,585	\$123,415	\$165,000
Fund Transfers	\$121,261	\$58,793	\$180,000
Non-Property Tax Revenue	(\$8,950)	(\$8,950)	(\$17,900)
<b>Total 2010 Budget Expense</b>	<b>\$642,007</b>	<b>\$755,546</b>	<b>\$1,397,499</b>
District Assessed Value	\$2,318,301	\$2,318,301	\$2,318,301
Taxable Rate per \$100 TAV	27.693	32.588	60.281

Figure 6 shows that 54 percent of GHFD total costs are for the provision of EMS to the District. On a home with a \$200,000 TAV, the cost of ambulance service is \$652.

**Comparative information**

The residents of GHFD have petitioned the Town of Brookhaven to take action against the District due to the high cost of fire protection in comparison to adjacent Districts based on the tax rates charged to each home owner. To understand the issue in the eyes of the tax payers, the following tables depict the total assessed taxable value of the 39 fire districts in the Town of Brookhaven, the total budget for each district, and the tax rate for each district.<sup>3</sup> Each individual table also shows the rank by size of each district in comparison to all the districts. It should be noted that the Town of Brookhaven also has ten ambulance districts. Ambulance districts are charged to the tax payers on separate lines of the tax invoice so a district-to-district comparison is not possible without including the cost of ambulance service districts. The only adjacent fire district with an ambulance district is Medford Fire District.

<sup>3</sup> Information provided by the Town of Brookhaven’s finance department.

**Town of Brookhaven, NY – Fire District Dissolution Study**

**Figure 7: Taxable Assessed Value for Fire Districts**

<b>Fire District</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>TAV Ranking</b>
Setauket	43,592,521	43,693,004	43,666,693	43,205,167	42,624,755	1
Centerreach	29,211,961	29,258,529	29,461,647	29,203,490	29,077,161	2
Selden	26,906,280	26,897,393	26,757,504	26,280,681	26,009,097	3
Lake Ronkonkoma	25,525,816	25,438,317	25,325,830	25,067,083	24,800,912	4
Pt Jefferson	23,995,343	23,964,565	23,937,792	23,728,872	23,504,639	5
Medford	22,340,473	22,838,805	22,990,072	22,850,155	22,790,198	6
Rocky Point	22,676,949	22,770,776	22,714,003	22,382,481	22,159,675	7
Terryville	22,004,144	21,856,336	21,807,789	21,510,412	21,279,922	8
Coram	17,608,268	17,699,437	17,604,136	17,308,250	16,992,901	9
Mt Sinai	14,430,909	15,523,137	15,992,284	16,047,034	16,115,264	10
Holtsville	16,356,863	16,458,657	16,576,126	16,093,862	15,972,088	11
Farmingville	16,587,784	16,383,162	16,171,829	16,049,654	15,712,880	12
Mastic	14,590,257	14,699,254	14,756,556	14,703,558	14,776,231	13
Miller Place	15,343,090	15,453,548	15,213,891	14,993,022	14,683,535	14
Manorville	14,750,147	14,851,413	14,809,547	14,696,883	14,484,074	15
North Patchogue	14,487,240	14,440,828	14,409,614	14,257,903	14,237,058	16
Brookhaven	13,724,540	13,782,709	13,784,916	13,679,813	13,645,417	17
Mastic Beach	12,910,150	12,999,128	13,072,677	13,095,662	13,085,543	18
Ridge	13,289,440	13,372,060	13,183,494	13,193,156	12,982,500	19
Patchogue	12,213,616	12,017,050	11,961,177	11,903,818	11,820,963	20
Middle Island	12,119,401	12,154,149	12,171,256	11,935,977	11,778,858	21
Stoney Brook	12,002,735	11,929,183	11,887,013	11,825,370	11,704,155	22
Hagerman	1,173,654	11,786,341	11,693,993	11,723,329	11,649,110	23
Center Moriches	8,544,829	8,762,603	8,844,583	8,887,374	8,910,113	24
Wading River	8,377,589	8,356,936	8,287,378	8,219,287	8,188,811	25
East Moriches	8,197,854	8,647,388	8,264,249	822,515	8,167,066	26
Bellport	7,415,371	7,517,156	7,427,986	7,406,522	7,412,893	27
Sound Beach	6,499,487	6,515,822	6,495,353	6,491,904	6,478,744	28
Blue Point	6,364,924	6,384,962	6,381,333	6,287,464	6,180,155	29
Yaphank	6,101,466	6,149,055	6,071,461	6,096,107	6,087,909	30
Fire Island Pines	2,994,920	2,933,133	2,997,200	3,019,173	3,034,528	31
Moriches Protection	3,200,444	3,202,972	2,916,426	2,919,098	2,895,633	32
Gordon Heights	2,281,124	2,321,306	2,332,677	2,318,301	2,297,417	33
Eastport	1,770,687	2,067,340	2,185,793	2,226,340	2,271,821	34
Ocean Bay Park	1,345,199	1,346,934	1,357,684	1,356,665	1,390,020	35
Cherry Grove	897,136	894,163	904,637	903,667	909,288	36
Davis Park	852,071	853,158	855,097	856,012	863,273	37
Riverhead	773,703	770,426	770,724	764,288	765,160	38
Water Island	190,329	193,803	193,340	193,243	195,156	39

\*Green highlighted departments are adjacent to GHFD.

Total Taxable Assessed Value for the Town of Brookhaven increased 0.9 percent since 2006. GHFD TAV increased 0.7 percent over the same period of time. GHFD is ranked 33<sup>rd</sup> out of 39 fire districts in total assessed taxable value.

**Figure 8: Taxable Assessed Value for Ambulance Districts**

<b>Ambulance District</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
South County	25,255,467	25,484,156	25,279,949	25,235,495	25,158,759
Medford	22,176,065	22,606,845	22,704,378	22,568,634	22,497,248
Mt Sinai	14,430,909	15,523,137	15,990,171	16,045,133	16,113,574
Mastic	14,559,716	14,668,800	14,714,163	14,647,197	15,909,442
Manorville	16,075,574	16,172,002	16,138,127	16,013,688	15,794,512
Mastic Beach	12,910,150	12,999,128	13,057,787	13,084,494	13,070,935
East Port/East Moriches	9,274,568	10,041,380	9,753,455	9,771,262	9,758,874
Shirley	7,230,231	7,220,951	7,200,815	7,181,961	7,132,047
Blue Point	6,390,790	6,403,364	6,376,530	6,286,558	6,186,496
East Patchogue	2,085,773	2,085,134	2,072,992	2,074,343	2,074,882
<b>Total Budget Dollars</b>	<b>130,389,243</b>	<b>133,204,897</b>	<b>133,288,367</b>	<b>132,908,765</b>	<b>133,696,769</b>

Another view of comparable data is looking at total budget dollars. The following table summarizes the total budget dollars used to generate tax invoices for the residents of Brookhaven.

**Town of Brookhaven, NY – Fire District Dissolution Study**

**Figure 9: Budget Dollars for Fire Districts**

<b>Fire District</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>TAV Ranking</b>
Selden	5,940,099	6,183,981	6,165,733	6,165,712	6,165,719	1
Coram	5,737,830	5,800,637	5,694,409	5,290,442	5,474,605	2
Setauket	4,823,077	4,821,532	4,781,068	6,440,163	4,878,831	3
Centerreach	3,492,290	3,601,435	3,789,066	3,940,135	4,114,130	4
Terryville	4,025,658	4,024,189	4,024,844	4,015,136	4,073,404	5
Middle Island	2,946,240	3,083,509	3,273,094	3,613,044	3,713,049	6
North Patchogue	2,981,474	3,208,464	3,358,885	3,507,729	3,576,208	7
Rocky Point	3,038,035	2,983,285	3,319,008	3,490,069	3,324,431	8
Ridge	2,343,859	2,559,150	2,763,925	2,957,377	3,105,285	9
Farmingville	2,325,110	2,929,146	2,925,160	3,023,114	2,964,550	10
Medford	2,848,680	2,827,607	2,816,745	2,977,382	2,866,552	11
Hagerman	1,664,258	1,656,216	1,676,339	2,124,972	2,349,744	12
Lake Ronkonkoma	2,553,858	2,554,007	2,456,355	2,352,296	2,338,976	13
Brookhaven	1,782,681	1,930,274	2,073,251	2,209,702	2,278,239	14
Holtsville	1,800,073	2,033,632	2,152,245	2,126,964	2,137,226	15
Miller Place	2,015,315	2,003,708	1,918,476	1,954,041	2,031,762	16
Stoney Brook	1,315,020	1,380,088	1,492,058	1,528,074	1,855,113	17
Patchogue	1,272,781	1,353,963	1,385,225	1,504,287	1,579,990	18
Center Moriches	1,337,351	1,381,776	1,398,065	1,554,314	1,565,775	19
Pt Jefferson	1,574,814	1,475,739	1,512,151	1,642,750	1,557,418	20
Gordon Heights	1,476,161	1,476,165	1,421,510	1,397,518	1,397,520	21
Yaphank	1,255,499	1,226,306	1,318,600	1,317,308	1,361,868	22
Bellport	1,042,601	1,072,247	1,102,907	1,091,062	1,322,906	23
Mt Sinai	1,135,135	1,192,023	1,267,069	1,267,074	1,320,002	24
Manorville	1,213,495	1,212,470	1,213,198	1,216,463	1,293,433	25
Sound Beach	1,022,499	1,226,409	1,225,089	1,339,215	1,267,697	26
Mastic Beach	1,424,377	1,002,241	1,075,489	1,161,458	1,146,555	27
Blue Point	862,129	888,021	917,764	923,251	917,074	28
Wading River	758,926	776,527	807,108	807,627	833,457	29
East Moriches	750,432	743,770	756,925	763,483	795,961	30
Moriches Protection	425,051	419,398	415,824	432,522	400,003	31
Fire Island Pines	126,296	154,865	148,632	216,777	235,632	32
Ocean Bay Park	189,754	178,482	189,451	188,658	190,364	33
Davis Park	122,102	147,076	139,800	132,785	147,240	34
Mastic	1,641,842	1,482,714	1,449,096	1,446,539	144,603	35
Cherry Grove	119,956	119,952	119,955	120,143	120,144	36
Eastport	87,366	94,188	96,321	110,761	109,570	37
Riverhead	58,662	63,692	83,168	82,979	85,323	38
Water Island	36,376	36,710	35,412	42,413	54,002	39

\*Green highlighted departments are adjacent to GHFD.

**Town of Brookhaven, NY – Fire District Dissolution Study**

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Total fire protection expense dollars for the Town of Brookhaven increased 7.9 percent since 2006. GHFD total expense dollars decreases by 5.3 percent for the same period of time. GHFD is ranked 21<sup>st</sup> in 2010 for total budget dollars versus 33<sup>rd</sup> in TAV ranking.

**Figure 10: Budget Dollars for Ambulance Districts**

<b>Ambulance District</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>TAV Ranking</b>
Medford	778,380	852,732	1,061,887	1,170,192	1,814,930	1
South County	1,391,324	1,460,251	1,477,623	1,575,200	1,602,364	2
Mastic	974,045	924,282	1,188,317	1,363,801	1,449,358	3
Mastic Beach	1,113,113	1,028,262	1,109,656	1,113,886	1,325,001	4
Manorville	769,538	774,800	823,529	848,567	940,404	5
East Port/East Moriches	803,456	785,424	801,860	848,537	916,067	6
Shirley	815,787	835,753	843,935	904,857	910,409	7
Mt Sinai	368,072	371,158	774,246	693,958	719,149	8
Blue Point	347,276	347,705	374,813	400,265	421,239	9
East Patchogue	113,341	113,223	121,851	132,074	141,279	10
<b>Total Budget Dollars</b>	<b>7,474,332</b>	<b>7,493,590</b>	<b>8,577,717</b>	<b>9,051,337</b>	<b>10,240,200</b>	

The final comparison to other fire districts in the Town of Brookhaven is the actual tax rates charged to the residents of each district.

**Town of Brookhaven, NY – Fire District Dissolution Study**

**Figure 11: Tax Rates for Fire Districts**

<b>Fire District</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Rate Ranking</b>
Gordon Heights	64.712	63.592	60.939	60.282	60.830	1
Coram	32.586	32.773	32.347	30.566	32.217	2
Middle Island	23.814	24.852	26.892	29.743	31.523	3
Water Island	19.112	18.942	18.316	21.948	27.671	4
North Patchogue	20.580	22.218	23.310	24.602	25.119	5
Ridge	17.637	19.138	20.965	22.416	23.919	6
Selden	22.077	22.991	23.043	23.461	23.706	7
Yaphank	20.577	19.943	21.718	21.609	22.370	8
Hagerman	14.180	14.052	14.335	18.126	20.171	9
Sound Beach	15.732	18.822	18.861	20.629	19.567	10
Terryville	18.295	18.412	18.456	18.666	19.142	11
Farmingville	14.017	17.879	18.088	18.836	18.867	12
Center Moriches	15.651	15.769	15.807	17.489	17.573	13
Davis Park	14.330	17.239	16.490	15.512	17.056	14
Bellport	14.060	14.264	14.848	14.729	17.046	15
Brookhaven	12.989	14.005	15.040	16.153	16.696	16
Stoney Brook	10.956	11.569	12.552	12.922	15.850	17
Rocky Point	13.771	13.432	14.951	16.009	15.382	18
Blue Point	13.545	13.908	14.382	14.684	14.839	19
Centerreach	11.955	12.309	12.861	13.492	14.149	20
Miller Place	13.135	12.966	12.610	13.033	13.837	21
Moriches Protection	13.281	13.094	14.258	14.817	13.814	22
Ocean Bay Park	14.106	13.251	13.954	13.906	13.695	23
Holtsville	11.005	12.356	12.984	13.216	13.381	24
Patchogue	10.421	11.267	11.581	12.637	13.366	25
Cherry Grove	13.371	13.415	13.260	13.295	13.213	26
Medford	12.768	12.401	12.252	13.030	12.578	27
Setauket	11.064	11.035	10.949	14.906	11.446	28
Riverhead	7.582	8.267	10.791	10.857	11.151	29
Wading River	9.059	9.292	9.739	9.826	10.178	30
Mastic	11.253	10.087	9.820	9.838	9.786	31
Lake Ronkonkoma	10.005	10.004	9.699	9.384	9.431	32
Manorville	8.227	8.164	8.192	8.277	8.930	33
Mastic Beach	11.033	7.710	8.227	8.869	8.762	34
East Moriches	9.154	8.600	9.159	9.283	8.746	35
Mt Sinai	7.866	7.679	7.923	7.896	8.191	36
Fire Island Pines	4.217	5.174	4.959	7.180	7.765	37
Pt Jefferson	6.563	6.158	6.317	6.923	6.626	38
Eastport	4.934	4.556	4.406	4.975	4.823	39

\*Green highlighted departments are adjacent to GHFD.

GHFD is ranked first with regard to tax rate for the Town. GHFD is \$28.613 higher than the number two-ranked Coram Fire District; GHFD's tax rate is 88.9 percent higher than Coram's.

**Figure 12: Tax Rates for Ambulance Districts**

<b>Ambulance District</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Rate Ranking</b>
Shirley	11.283	11.574	11.720	12.599	12.765	1
Mastic Beach	8.622	7.911	8.498	8.513	10.137	2
East Port/East Moriches	8.663	7.821	8.221	8.684	9.387	3
Mastic	6.690	6.301	8.076	9.311	9.110	4
Medford	3.561	3.772	4.677	5.185	8.066	5
Blue Point	5.434	5.430	5.878	6.367	6.809	6
East Patchogue	5.434	5.430	5.878	6.367	6.809	7
South County	5.509	5.730	5.845	6.242	6.369	8
Manorville	4.787	4.791	5.103	5.299	5.954	9
Mt Sinai	2.509	2.391	4.842	4.325	4.463	10

The four fire districts surrounding GHFD are Medford, Yaphank, Coram, and Middle Island. Of these districts, all offer EMS services as part of the fire district budget with the exception of Medford, which has an ambulance district. It should be noted that the assessed value for the Medford ambulance district is slightly less than the fire district.

The following table summarizes the total 2010 budget in a comparative format for the four surrounding districts. The data for each district has been modified by account description to the same format as Gordon Heights and will not agree by expense category with the budget originally submitted to the Town of Brookhaven.

Figure 13: 2010 Expense Budget Comparisons

	Medford Fire	Medford Ambulance	Total Medford	Coram	Middle Island	Yaphank	Gordon Heights
District TAV	22,790,198	22,497,248	22,643,723	16,992,901	11,778,858	6,087,909	2,297,417
<b>Expense Category</b>							
Personnel Services	475,000	375,000	850,000	1,580,000	740,000	282,522	371,849
Business Operations	0	121,500	121,500	296,000	205,000	76,200	114,500
Business Administration	365,000	133,300	498,300	382,050	248,000	177,623	135,500
Bond and Lease Payments	675,000	0	675,000	629,672	200,000	254,500	88,068
Vehicles	200,000	72,000	272,000	260,000	150,000	123,000	60,000
Building and Grounds	0	145,000	145,000	537,800	320,000	73,300	123,200
Communications	0	50,000	50,000	85,000	80,000	11,200	43,500
Fire and Rescue	422,500	164,000	586,500	299,000	250,000	30,600	105,282
Social Security	0	0	0	123,000	70,000	26,670	28,500
Insurance Exempt	428,833	185,000	613,833	1,102,000	730,000	207,215	165,000
Subtotal w/o Capital	2,566,333	1,245,800	3,812,133	5,294,522	2,993,000	1,262,830	1,235,399
Fund Transfers	300,000	426,000	726,000	250,000	720,000	500,000	180,000
Non-Property Tax Revenue	0	0	0	(70,000)	0	(401,000)	(17,900)
<b>Total Expenditures w/capital</b>	<b>2,866,333</b>	<b>1,671,800</b>	<b>4,538,133</b>	<b>5,474,522</b>	<b>3,713,000</b>	<b>1,361,830</b>	<b>1,397,499</b>
Tax rate per Hundred w/o capital	11.26	5.54	16.84	31.16	25.41	20.74	53.77
Tax rate per Hundred w/ capital	12.58	7.43	20.04	32.22	31.52	22.37	60.83

If the preceding information is reviewed without the cost of providing capital, the tax rate for GHFD moves closer to Coram Fire District's rate.

Another comparison is to other volunteer fire districts throughout the country to analyze costs with similar sized departments. The following table outlines the cost of GHFD against West Douglas County Fire Protection District (outside of Denver, Colorado).

Figure 14: 2010 Expense Budget Comparisons

	Gordon Heights	West Douglas County (CO)
District TAV	2,297,417	45,932,467
Population	~3000	~4500
Calls	605	1302
Coverage Area	4 square miles	60 square miles
Paid FTEs	3.5	0
Volunteers	60	38
<b>Expense Category</b>		
Personnel Services	371,849	0
Business Operations	114,500	31,400
Business Administration	135,500	11,600
Bond and Lease Payments	88,068	133,891
Vehicles	60,000	29,000
Building and Grounds	123,200	20,660
Communications	43,500	3,000
Fire and Rescue	105,282	25,200
Social Security	28,500	0
Insurance Exempt	<u>165,000</u>	<u>77,900</u>
Subtotal w/o Capital	1,235,399	332,651
Fund Transfers	180,000	10,000
Non-Property Tax Revenue	<u>(17,900)</u>	<u>0</u>
<b>Total Expenditures w/capital</b>	<b>1,397,499</b>	<b>342,651</b>
Tax rate per Hundred w/o capital	53.77	0.72
Tax rate per Hundred w/ capital	60.83	0.75

**General Fiscal Impact Observations**

GHFD currently has paid positions of a secretary, a treasurer, a custodian, and a clerical person. In addition to administrative position, GHFD has a paid ALS coordinator, part-time mechanic, and three EMT staff positions. These positions account for \$371,849 in wages and an additional \$109,500 in taxes and benefits paid for personnel. Personnel costs total \$481,349 in the 2010 budget (34 percent of the budget). GHFD has 14 in-service vehicles and two antique vehicles. Each of these vehicles, with the possible exception of the antiques, must have insurance, fuel, maintenance and equipment to keep them operational. The limited number of calls would suggest that the useful life of all vehicles can be extended which would reduce the burden on tax payers to fund new purchases.

**Recommendations:**

- Review equipment replacement plan to ensure that each unit is being optimally utilized prior to disposal.
- Review the need for a part-time mechanic.
- Investigate the potential cost savings of contracting mechanical services to the Town or another external vendor.
- Investigate the potential cost savings of entering a joint equipment maintenance and/or purchasing agreement with an adjacent district.
- Review communications cost category expenditures.
- Review excessive fire/rescue equipment purchases as compared to service demand.

## Staffing and Personnel Management

An organization's people are its most valuable resource. Careful attention must be paid to managing that resource to achieve maximum productivity for the organization and maximum satisfaction for the individual. A safe working environment, fair treatment, and recognition for a job well done are key components of employment, membership, and job satisfaction.

Policies and procedures, guidelines, general orders in regard to maintenance of personnel records, promotional process, and disciplinary policies based on firm enabling documents are keys to efficient and effective personnel management of a fire department. The maintenance of adequate and up-to-date personnel records is critical in every organization that depends on the effective performance of its people. Original application materials should be retained in an attempt to create a full historical record of the employee/member's participation in the organization from initial appointment to separation. Documents and records referring to assignments, promotions, commendations, discipline, and other personnel actions should be maintained as well.

A formal progressive disciplinary process for members and employees should be clearly identified and available. The process should provide for various levels of discipline focused on correcting unacceptable behaviors with the most reasonable actions considered appropriate and effective. The process under which discipline is applied should be clear and unambiguous. A multi-level appeals process should be documented to afford the member who feels aggrieved by an unreasonable disciplinary action the opportunity to have his/her issues reviewed by an impartial party.

Critical incident stress is a very real condition that affects all emergency service workers to some degree or another. It is how emergency workers deal with that stress that makes the difference. The trigger for significant psychological trauma may be a single event or a series of compounding events. Emergency services bring otherwise ordinary people into life and death situations that sometimes end very tragically. Even though fire/rescue personnel are trained firefighters, they do not have an impregnable shield that prevents them from being affected by traumatic events. Though normally sufficient to help emergency personnel cope with the event, on occasion longer-term support is needed. Failure to provide that support can ultimately lead to the temporary or permanent loss of a valuable member.

Fire departments must provide adequate staffing in three key areas; emergency services, administration, and support. ESCI surveyed the Gordon Heights Fire District to determine how the balance between the three areas is maintained, given the realities of available local resources.

Several industry standards address staffing issues. Specifically, the *OSHA Respiratory Protection Standard 29 CFR 1910, 134*; *NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments*; and *NFPA 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments* are frequently cited as authoritative documents. These resources have been used as benchmarks against which GHFD has been compared.

### **Rules, Regulations, and Handbooks**

GHFD maintains a policy and procedures manual that combines all administrative and operational policies and procedures plus maintains a separate standard operating procedures manual that outlines tactical operational procedures. Those policies and procedures specifically related to personnel management aspects of the District include those considered critical to a successful organization such as benefits descriptions, sexual harassment, and workplace violence prevention.

The current policy and procedures manual is a compilation of administrative, personnel, and operational policies and procedures; sections/specific documents are not segregated for ease of reference.

#### **Recommendation:**

- GHFD should separate administrative policies from operational procedures so that personnel can quickly reference necessary documents.

### **Credentialing and Licensing**

In regard to firefighting personnel, “Policy 05-1: Classification of Firefighters” identifies four specific classifications of personnel:

- Class A – Interior Firefighter
- Class B – Exterior Firefighter
- Class C – Emergency Medical Response Firefighter
- Class D – Fire Police/Administration

Although ultimately regulated by the State of New York Department of Health, Bureau of Emergency Medical Services, credentialing/licensing and classification of EMS personnel is noticeably absent from the District’s policies and procedures. According to the NYS Bureau of EMS, there are 2,194 Emergency Medical Technician – Critical Care (EMT-CC) licensed in the New York. GHFD reports that the District employs four full-time (including the ALS coordinator) and 11 part-time EMT-CC personnel. The only reference to qualifications of EMS personnel is contained within a revision of the District by-laws that states all EMS officers must maintain an EMT certification.

The 2009 Training Analysis by Category report supplied by GHFD indicates that out of the total 1,067 hours of training conducted within the District, only 21 hours were dedicated to EMS (not including the 111.4 hours attributed to an EMS drill).

### **Disciplinary Processes**

GHFD Policy 08-1 outlines the District’s progressive disciplinary procedures and serves as the District’s official policy for handling disciplinary actions. Although the policy is well-written in that it clearly identifies the various levels of discipline and where the authority for disciplinary action ultimately lies, the policy concludes with a statement regarding civil service law and a blanket statement that enables the District to take whatever action necessary outside the general scope of the policy.

#### **Recommendations:**

- The District should remove any reference to civil service law from the disciplinary policy.
- The District should remove the last element of the disciplinary policy so as to reduce the potential for bias and irregularity in the application of the progressive discipline policy.

**Recruitment and Application Processes**

There is little information available as to the procedure for the hiring of District EMS personnel while new membership procedures for firematic personnel are outlined in the policies and procedures noted previously. The general procedure to become a firematic member of GHFD includes:

- Membership Committee interview
- Application review by membership as a whole
- Interview with Board of Commissioners, if application approved by membership
- Physical examination, at expense of District
- Sworn in by Board of Fire Commissioners

Upon swearing in as a member of the District, each individual is issued a pager, basic handbook, district map, responsibility sheet, response protocols, by-laws, station key, and picture ID.

The District has established an attendance and point policy for the membership that details attendance requirements both for dispatched incidents as well as routine activities. Service points are awarded for various activities and a minimum of 50 points per calendar year are required for members to participate in the awards program. The following is a summary of point awards.

**Figure 15: Points System Summary**

Event	Points Per Event	Minimum Requirement	Maximum Annual Points
Fire Calls	1	10%	25
Ambulance Calls	1	10%	25
Training Courses	1 per hour		25
Drills	1	2 Hour	25
Meeting Attendance	1		25
Miscellaneous	1		25
Elected Position			
	Chief – 25	Captain – 20	Lieutenant – 15
	President/VP – 10	Chaplain – 5	Secretary/Treasurer – 5
	Sergeant-at-Arms – 5		

Full-time personnel are not included in the points award system but are provided additional benefits, including:

- Up to 15 days paid vacation depending on tenure
- 10 paid holidays (time and one-half for hours worked plus eight hours holiday pay)

- 12 paid sick days
- Five paid personal days
- Five paid bereavement days

### **Testing, Measurement, and Promotional Processes**

The District does not utilize a formal testing and measurement process for promotions but rather has established minimum requirements with Article IV of the by-laws for each elected officer's position within the District. The majority of position requirements are limited to years of service within the District with experience at the next lower level prior to qualification. Second Lieutenant is the lowest officer rank open to election and this position requires at least one year of active service, qualified on all firematic equipment, certified in either truck or engine company operations, first aid and CPR certification, and attendance at 40 percent of alarms and 80 percent of scheduled drills.

In light of the increasing responsibilities being placed on fire and EMS providers, the District should consider establishing formal job descriptions for each volunteer officer and implementing formal minimum requirements based on experience, education, and skills proficiency rather than election by the membership.

#### **Recommendation:**

- The District should consider establishing formal job descriptions for each volunteer officer and implementing formal minimum requirements based on experience, education, and skills proficiency rather than election by the membership.

### **Staff Distribution**

#### ***Administration and Support Staff***

One of the primary responsibilities of the District's administration and support staff is to ensure that the operational entities of the organization have the ability and means to accomplish their responsibilities on an emergency incident. Efficient and effective administration and support are critical to the District's success. Without sufficient oversight, planning, documentation, training, and maintenance, the operational entities could fail. Like any other part of the District, administration and support require appropriate resources to function properly.

Analyzing the ratio of administration and support positions to the total positions facilitates an understanding of the relative number of resources committed to this important function. The appropriate balance of the administration and support component to the operational component is crucial to the success of the department’s mission and responsibilities. For ease of illustration, volunteer and/or stipend personnel are calculated at 0.25 FTEs (full-time equivalents).

**Figure 16: GHFD Administration and Support Complement**

Position	Number
District Secretary	1.00
District Treasurer	1.00
President	0.25
Vice President	0.25
Financial Secretary	0.25
Sergeant-at-Arms	0.25
Chaplain	0.25
Fire Chief	0.25
<b>Total Personnel</b>	<b>3.50</b>

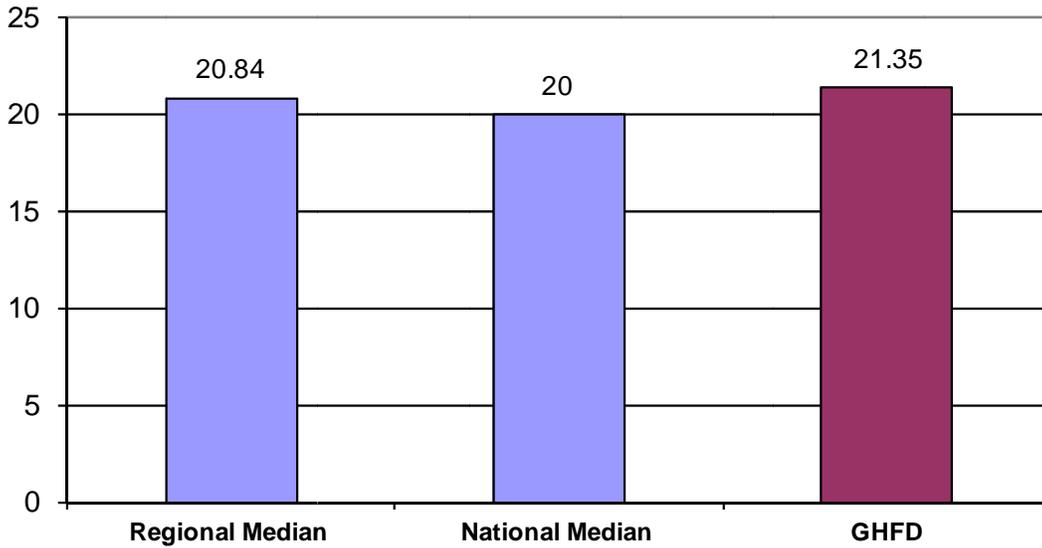
In addition to the administrative oversight of a fire department, it takes an adequate and well trained staff of emergency responders to put the appropriate emergency apparatus and equipment to its best use in mitigating incidents. Insufficient staffing at an operational scene decreases the effectiveness of the response and increases the risk of injury to all individuals involved. The following figures summarize the volunteer personnel assigned to *street-level* service delivery and does not utilize an FTE equivalent. The numbers shown are actual positions.

**Figure 17: Field Operations Staffing Summary**

Position	Number
Captain	4.0
1 <sup>st</sup> Lieutenant	4.0
2 <sup>nd</sup> Lieutenant	4.0
Firefighter	18.0
Rescue Squad	8.0
Fire Police	9.0
<b>Total Personnel</b>	<b>47.0</b>

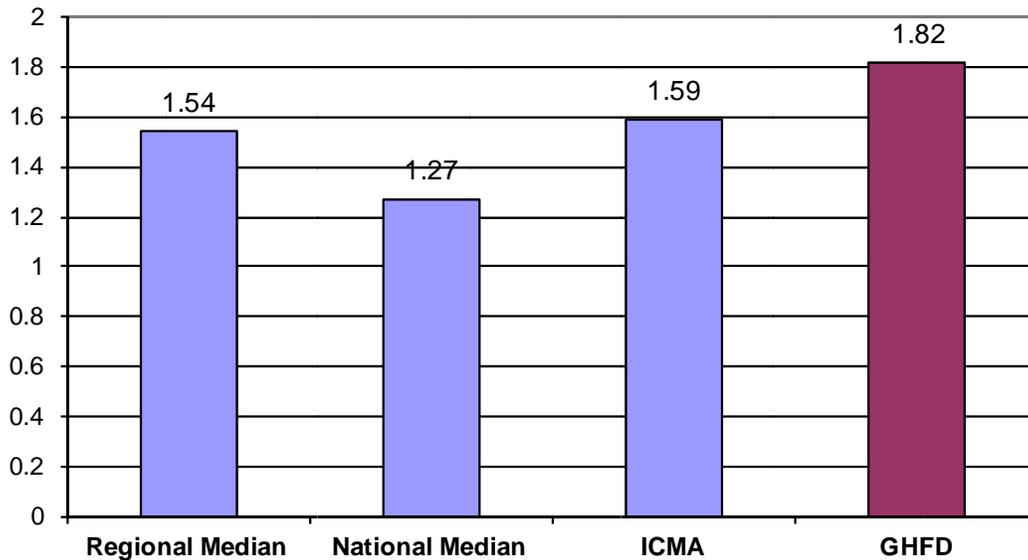
Although the fire chief is also considered in the emergency response complement, for the purposes of staff division, that position is excluded from this illustration and is included in the administrative complement figure. The following figure compares GHFD against the regional and national medians for volunteers (paid-on-call) per 1,000 population.

Figure 18: Volunteer Personnel per 1,000 Population



The District is enjoying a slightly higher than average rate of volunteerism. The following figure considers career personnel in comparison to volunteer (paid-on-call) personnel for departments of similar size and population as Gordon Heights.

Figure 19: Career Personnel per 1,000 Population



Note: ICMA – International City/County Managers Association

It should be noted here that NFPA (National Fire Protection Association) benchmark data does not include data specific to combination fire departments; the preceding chart is a combination of the available data from the closest matching population groups. For the purposes of this analysis, paid GHFD EMS personnel are considered in the overall paid complement of the fire department since responses are handled by a combination of paid and volunteer personnel.

### **Incident Staffing Performance**

The NFPA issued a response performance standard for all or mostly volunteer staffed fire departments. This standard, among other things, identifies a response time performance objective for fire departments and a target staffing standard for structure fires. *NFPA 1720* is not a legal mandate, but it does provide a useful benchmark against which to measure the fire department's performance.

Of significance to the staffing objective of this study is that *NFPA 1720* establishes that a response company consists of four personnel. The standard does not require that all four be on the same vehicle but does expect that the four will operate as a single functioning unit once on scene. The *NFPA 1720* response time standard also requires that all four personnel be on scene within the recommended response time guidelines.

There is another reason the arrival of four personnel is critical for structure fires. OSHA regulations require that before personnel can enter a building to extinguish a fire, at least two personnel must be on scene and assigned to conduct search and rescue in case the fire attack crew becomes trapped. This is referred to as the two-in, two-out rule.<sup>4</sup> The only exception to this regulation is if it is known that victims are trapped inside the building.

Given volunteer staffing of engines within Gordon Heights, the time it takes for the second unit to arrive becomes very important to achievement of the NFPA standard. If additional help is a considerable time away, the fire will continue to grow rapidly contributing to significantly more damage to the property.

Under normal circumstances, an analysis of the incident response staffing by GHFD would have been accomplished through the comparison of its incident staff response performances to

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<sup>4</sup> US Department of Labor. Occupational Health and Safety Administration. Directorate of Safety Standards. 29 CFR 1910.134(g)(4). Respiratory Protection.

national standards, local and national task analyses, and observations. Unfortunately, National Fire Incident Reporting System (NFIRS) data was not available for analysis, therefore no determination of staffing effectiveness could be completed.

## Capital Assets

Gordon Heights Fire District maintains one fire station that, like all fire stations, needs a balance of three basic resources to successfully carry out its emergency mission: People, equipment, and facilities. Because firefighting is an extremely physical pursuit, the adequacy of personnel resources is a primary concern; but no matter how competent or numerous the firefighters are, the department will fail to execute its mission if it lacks sufficient fire apparatus distributed in an efficient manner.

GHFD maintains millions of dollars' worth of capital assets. Maintenance and replacement plans should be created and maintained for facilities, apparatus, and other high value equipment. A funding mechanism should be established to ensure money is available to cover the cost of this effort and that resources are not duplicated within the area.

While volunteer, career, and combination departments have different facility requirements, there are basic needs each fire station must address: Quick response and housing of apparatus and equipment. Everything else depends on a particular department's budget and needs. Fire station designs are unlike any other type of project as there are many subtle elements and specialized systems that go into a fire station. For example, fire departments across the country are wrestling with the question of how to address gender issues within the boundaries of both existing and new fire stations.

Important issues and/or goals to consider when designing a fire station suitable for both men and women include the design of bunk rooms, restrooms, locker rooms, and common areas. It appears that was not taken into consideration as the GHFD facility was expanded over the years.

### **Facilities**

The following figure represents a summary of the evaluation conducted on the GHFD facility.

	<p><b><u>Gordon Heights</u></b>  <b>23 Hawkins Avenue</b></p> <p>Originally built in 1946, with additions in 1950, 1986, and 2002, this 18,977 square foot facility consists of four back-in and four drive-through apparatus bays. Blending in well with the surrounding area, this facility has undergone three renovations to accommodate the needs of the department and community. Amenities are consistent with a volunteer fire department, offering no accommodations for full-time staff but allow for business meetings, classroom training segments, and community functions that include food preparation.</p> <p>Any specific issues or observations with this facility can be classified into the following seven categories.</p>
<p><b>Design</b></p>	<p>Size of facility is adequate for current use. Although there are no warning lights to notify traffic of apparatus responding, exit to traffic flow is adequate. The front of the station also serves as a public bus stop. During inspection, riders were observed boarding bus that blocked front apron.</p>
<p><b>Construction</b></p>	<p>The building is constructed on block walls with a flat steel bar joist roof. No leaks were evident during inspection (in which it was raining). A fuel oil furnace provides heat for the entire building and appeared to be well maintained. The building is cooled by central air conditioning (with the exception of the apparatus bays).</p>
<p><b>Safety</b></p>	<p>The building does not offer a fire sprinkler system, as smoke/heat, and security alarms are monitored off-site. Building is well secured, as all members maintain key-fob entry keys. Security cameras are mounted in and around facility with all activity recorded on-site. All exits were unobstructed and identified by working signage. All apparatus doors had properly operating automatic door stops. Commercial cooking equipment on site was well maintained with proper filters in place. Central shut down point for cooking equipment was unobstructed with fixed extinguishing system (up to date regarding inspection). Back-up generator with automatic transfer is powered by diesel. Flammables were not properly stored. Paint and paint thinner was noted in storage rooms off of bay and outside of hall. Although properly marked, breakers in the bay and storage room outside of hall had tape covering them. General cleaning needed for all storage rooms. All oxygen cylinders properly chained, and there were an ample number of extinguishers mounted throughout the facility.</p>
<p><b>Environment</b></p>	<p>There is no apparatus smoke removal system in the station. No apparatus floor drain oil separation provided. No evidence of underground storage tanks.</p>
<p><b>Code Compliance</b></p>	<p>No building code issues notes during inspection.</p>

<b>Staff Facilities</b>	This facility offers limited space to work in, on, and around apparatus and small equipment, as there are two open apparatus spots in the main bay. Primary apparatus bay does not offer adequate room for safe and rapid turnout, as bunker gear is stored on the wall. There is very limited room between the apparatus and the gear. Facility offers a full service commercial kitchen for food preparation and dining; however, there is no space offered for sleeping or personal hygiene. There is only one bathroom each for male and female use. The large community hall can also be used for company-level meetings and classroom training sessions.
<b>Efficiency</b>	Main apparatus area offers motion sensors to turn on the bay lights. A residential washer and drier is offered, but there is no gear washer (laundry of turnout gear is provided by an outside contractor for off-site cleaning). Facility offers four administrative offices that are limited in space. A common meeting room is adjacent to the offices.

**Apparatus**

GHFD maintains a fleet of response vehicles; while some of the vehicles are new, half are in excess of the typical anticipated front-line lifespan for its type. Average age of all major fire apparatus is 5.6 years. Average condition of all fire and EMS apparatus is considered very good or new. GHFD needs to keep an apparatus replacement funding program active for future replacement needs.

In order to meet apparatus replacement needs of current resources, \$123,000 should be contributed to a reserve fund each year by the District. Also, based on the age and replacement schedule of apparatus in use today, there should be \$710,250 currently available in a reserve fund. This calculation is based on a continuation of the current number and type of apparatus that GHFD maintains.

Each heavy piece of apparatus was given a basic review for condition and safety.



**Engine 5 9 3**  
**2009 Spartan/Crimson Top-mount Pump Engine**

Seating Capacity: 8  
Pump Capacity: **1,500 gallons per minute (gpm)**  
Tank Capacity: **960 gallons**  
Condition: **Excellent**  
Mileage: **2,861**

**Additional Comments or Observations:** 30-gallon Class A foam tank, powered hydraulic pump-spreaders-cutters. Cordless saw-zall, cribbing, AED. Portable radios for all riding positions. One K12-saw and a sufficient number of PFDs.



**Engine 5 9 4**  
**2008 Spartan/Crimson Top-mount Pump Engine**

Seating Capacity: 8  
Pump Capacity: **1,500 gpm**  
Tank Capacity: **960 gallons**  
Condition: **Excellent**  
Mileage: **7,591**

**Additional Comments or Observations:** 30-gallon Class A foam tank, powered hydraulic pump and combination tool, and cordless saw-zall. Portable radios for all riding positions.



**Ladder 5 9 1**  
**1991 E One 75' Quint**

Seating Capacity: 6  
Pump Capacity: **1,250 gpm**  
Tank Capacity: **1,000 gallons**  
Condition: **Fair**  
Mileage: **16,396**

**Additional Comments or Observations:** Portable radio for all riding positions, search rope, one smoke ejector, assorted composite cribbing, powered hydraulic simo pump-spreaders-cutters, one K12, and one chain saw. Two 16' roof ladders, one 24' ladder, and one 35' ladder.



**Current Rescue**  
**1986 GMC Top-Kick Saulsbury Walk-In Heavy Rescue**

Seating Capacity: 4  
Pump Capacity: **N/A**  
Tank Capacity: **N/A**  
Condition: **Poor**  
Mileage: **19,678**

**Additional Comments or Observations:** On board generator, operations level hazmat booms-pads-absorbent. Powered hydraulic pump-cutter-spreader-3 rams, ResQjack stabilization kit, composite cribbing, air chisel, high pressure air bag set, and 2 K12 saws. 2 portable water pumps, working air compressor and light tower. One 24' ground and one 10' attic ladders.



**Brush 5 9 12**

***1952 6-Wheel Drive Military Surplus Vehicle Brush Truck***

Seating Capacity: **2 cap-4 back**  
Pump Capacity: **250 gpm**  
Tank Capacity: **500 gallons**  
Condition: **Poor**  
Mileage: **10,2304**

***Additional Comments or Observations:*** Vehicle is outdated and in poor condition.



**Brush 5 9 12B**

***1952 6-Wheel Drive Military Surplus Vehicle Brush Truck***

Seating Capacity: **2 cap-4 back**  
Pump Capacity: **250 gpm**  
Tank Capacity: **500 gallons**  
Condition: **Poor**  
Mileage: **71,719**

***Additional Comments or Observations:*** Vehicle is outdated and in poor condition.



**New Rescue**

***1993 Pierce Walk-In Heavy Rescue***

Seating Capacity: **2 cab - 6 in box**  
Pump Capacity: **N/A**  
Tank Capacity: **N/A**  
Condition: **Fair**  
Mileage: **28,283**

***Additional Comments or Observations:*** Light tower, four electric cord reels, two air reels, four hydraulic hose reels, four-bottle cascade system, one 12k electric winch.



**Fire Police 5 9 5**

***2007 Ford/Warner Body F550 Super Duty Utility (Fire Police 5)***

Seating Capacity: **5**  
Pump Capacity: **N/A**  
Tank Capacity: **N/A**  
Condition: **Excellent**  
Mileage: **5,075**

***Additional Comments or Observations:*** Utility body with roll-up doors. Rehab equipment featuring coolers and misting fans. Various traffic control equipment including personnel vests, flashlights, flares, cones, and portable barricades. This unit also offers a back-up camera and spare portable radios.



**Fire Police 5 9 6**

***2009 Ford E Series 11 passenger van Utility (Fire Police)***

Seating Capacity: **11**  
Pump Capacity: **N/A**  
Tank Capacity: **N/A**  
Condition: **Excellent**  
Mileage: **658**

***Additional Comments or Observations:*** No equipment carried on this vehicle.



**Spare Expedition XLT**  
***2005 Ford Expedition XLT Utility***

Seating Capacity: 5  
Pump Capacity: N/A  
Tank Capacity: N/A  
Condition: **Good**  
Mileage: **37,137**

***Additional Comments or Observations:*** No equipment carried on this vehicle.



**Charger**  
***2009 Dodge Charger Passenger Vehicle***

Seating Capacity: 5  
Pump Capacity: N/A  
Tank Capacity: N/A  
Condition: **Excellent**  
Mileage: **4,833**

***Additional Comments or Observations:*** No equipment carried on this vehicle.



**First Responder 5 9 15**  
***2001 Chevy Tahoe Utility***

Seating Capacity: 5  
Pump Capacity: N/A  
Tank Capacity: N/A  
Condition: **Fair**  
Mileage: **64,705**

***Additional Comments or Observations:*** Primary first responder vehicle, stocked with ALS equipment.



**First Responder Back-Up**  
***2005 Ford Expedition Utility***

Seating Capacity: 4  
Pump Capacity: N/A  
Tank Capacity: N/A  
Condition: **Good**  
Mileage: **23,958**

***Additional Comments or Observations:*** This is a spare SUV used as a back-up to the first responder vehicle.



**Ambulance 5 9 16**  
***1999 Ford/Road Rescue E450 Super Duty BLS Ambulance***

Seating Capacity: 2  
Pump Capacity: N/A  
Tank Capacity: N/A  
Condition: **Excellent**  
Mileage: **41,052**

***Additional Comments or Observations:*** BLS ambulance.



**Ambulance 5 9 17**  
***2009 Ford/Road Rescue E450 Super Duty BLS Ambulance***

Seating Capacity: 2  
Pump Capacity: **N/A**  
Tank Capacity: **N/A**  
Condition: **Excellent**  
Mileage: **9,888**

***Additional Comments or Observations:*** BLS ambulance.



**Chief Expedition**  
***Ford Expedition Utility***

Seating Capacity: 4  
Pump Capacity: **N/A**  
Tank Capacity: **N/A**  
Condition: **Excellent**  
Mileage: **Unknown**

***Additional Comments or Observations:***



**Utility**  
***Ford Pick-up Utility***

Seating Capacity: 2  
Pump Capacity: **N/A**  
Tank Capacity: **N/A**  
Condition: **Unknown**  
Mileage: **Unknown**

***Additional Comments or Observations:*** Not available for inspection.

**Maintenance and Repair**

The vehicle fleet management and maintenance program is handled through a part-time mechanic of the Fire District. The mechanic is Emergency Vehicle Technician (EVT) and Automotive Service of Excellence (ASE) certified. When the mechanic cannot make needed repairs due to scheduling limitations or repairs beyond his scope or equipment, other EVT/ASE mechanics are contracted to make the repairs. Common warranty items are handled by each piece of equipment's respective vendor. The mechanic is also responsible for all preventive maintenance, for which there is a dedicated schedule. The maintenance program monitors time, engine hours, and mileage between services.

The part-time mechanic is responsible for maintaining approximately 16 pieces of equipment which include:

- 2 Front Line Engines
- 2 Brush Trucks

- 1 75' Quint
- 2 Fire Police Vehicles
- 2 First Responder Vehicles (SUVs)
- 1 Heavy Rescue
- 2 Ambulances
- 3 Support Vehicles (Car, SUV, Pick up)
- 1 Chief Command Vehicle

In addition to vehicles the mechanic also repairs:

- Generators/saws
- Ventilation fans
- Extrication equipment
- Compressors
- Tools and small equipment

Many preventative maintenance functions are performed annually on the equipment. The mechanic performs the following functions:

- Assist with the development of specifications for apparatus to be bid out
- Administer a preventive maintenance program for the fleet and equipment
- Maintain a fleet and equipment parts inventory
- Perform and oversee all fleet and equipment repairs
- Conduct all small engine repairs
- Maintain fleet and equipment maintenance records

The Preventive Maintenance (PM) Program for the department was implemented by the mechanic. The goal of the program is to have all fire apparatus and smaller vehicles in the inventory receive PM service at 480 hours or three months and ambulances at 2,500 miles or every four months. Powered hydraulic rescue tool system repairs not able to be made by the mechanic are handled by the local Hurst® dealer. The area Scott® air pack representative addresses all SCBA repairs and testing.

Firefighters conduct monthly apparatus “response ready” checks to ensure equipment and apparatus is operating properly and safely. A schedule for equipment testing is established, with annual ground ladder/aerial testing outsourced to a third party vendor and pump testing conducted annually at the Suffolk County Fire Training Facility. Annual hose testing is also

outsourced to a vendor shared with other fire districts, with the scheduling responsibilities falling under the Fire Chief.

**Recommendations:**

- The department appears over-resourced for the size and the nature of risks within the community. Remove unnecessary apparatus from the fleet in order to reduce overall maintenance, operations, and insurance costs.
- Conduct apparatus “response ready” checks more frequently than once a month.
- Define and document an apparatus replacement schedule.

## **Service Delivery and Performance**

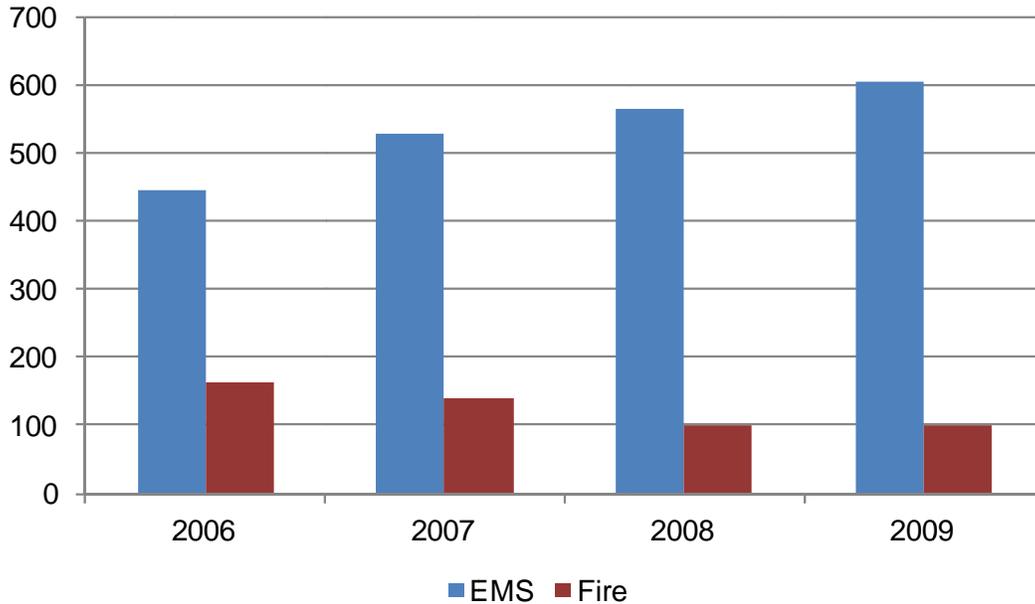
The delivery of fire suppression, rescue services, and emergency medical services is no more effective than the sum of its parts. It requires efficient notification of an emergency, rapid response from well-located facilities in appropriate apparatus, and sufficient staffing following a well-practiced plan of action. This section of the study evaluates these various components and provides observations of the elements that make up the delivery of the most critical core services provided by Gordon Heights Fire District. It should be noted that, under normal circumstances, data for analysis of the following components is typically obtained from departmental records management systems (RMS) and jurisdictional computer aided dispatch (CAD) centers. In this instance, this was not the case.

GHFD could produce no National Fire Incident Reporting System (NFIRS) data nor could the State of New York Office of Fire Prevention and Control (OFPC). Although GHFD personnel indicate that all response reports are entered into an in-house RMS and data is exported to the OFPC, the District was unable to extract any data from its system and the OFPC only had one response report on file for the past three years (2008, 2009, 2010). Suffolk County Department of Fire, Rescue & Emergency Services (SCFRES), Communications Bureau was able to produce raw incident data for independent analysis by ESCI. The demand analysis that follows has been compiled from that raw incident data.

### **Demand**

The following illustration is a representation of service demand experienced by GHFD over the last four years as provided by Suffolk County FRES.

Figure 20: Historical Workload by Incident Type



GHFD’s overall service demand is comprised primarily of emergency medical services incidents. Also, EMS incidents have increased steadily over the past four years while fire incidents have declined proportionately. The following figure illustrates how the predominant EMS workload is distributed across the various incidents types.

Figure 21: Historical EMS Workload by Condition

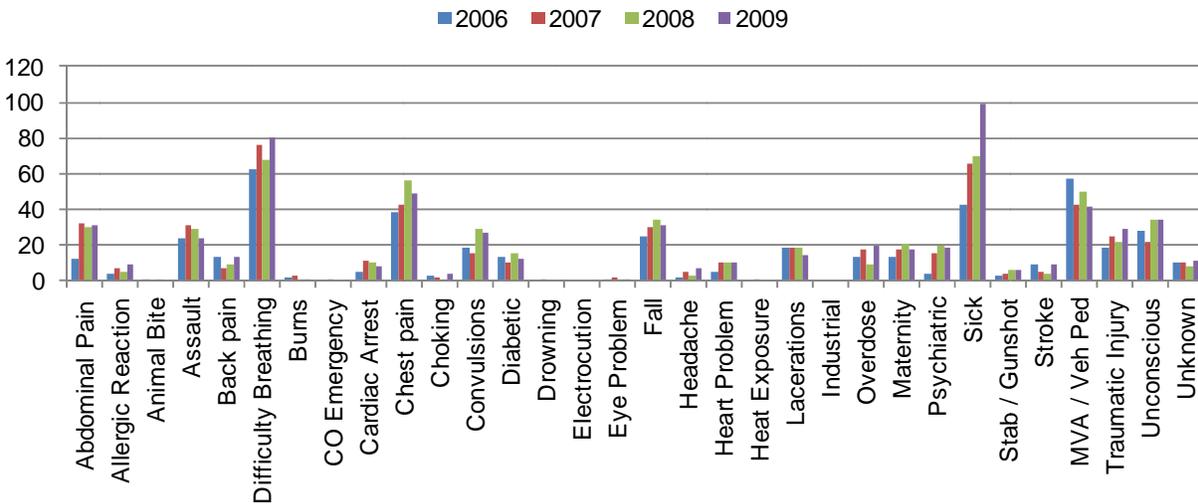
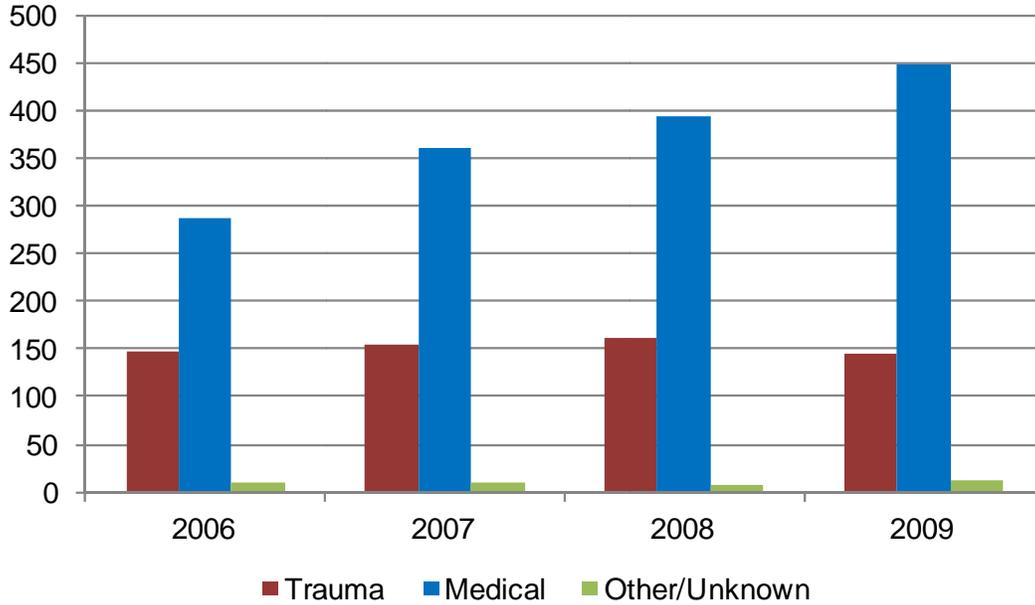


Figure 22 consolidates the information presented previously into a summary of all call types distributed over the four years of data evaluated.

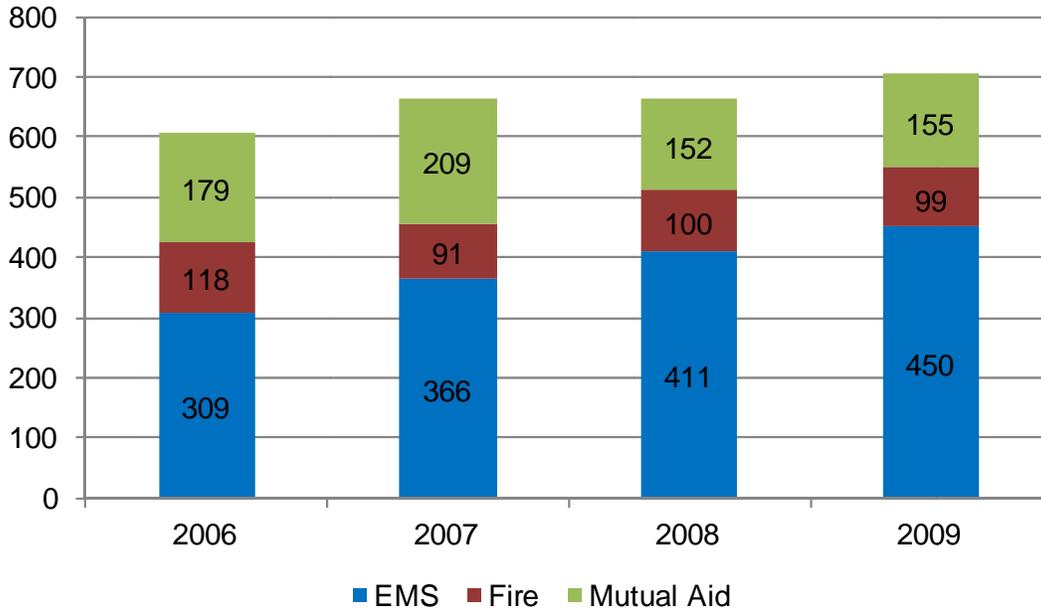
Figure 22: Historical EMS Workload Summary



Traumatic incidents have varied only slightly over the last four years as have other/unknown incidents while medical incidents have increased steadily. This could be attributed to an aging population within the District.

Anecdotally, the expected usage rate for most populations is approximately 10 percent. In other words, a population of 1,000 would produce an approximate service demand of 100 incidents per year. Therefore, based on the resident population of GHFD, an estimated service demand of around 300 incidents annually would be expected. This number cannot be verified, of course, since a variety of factors can be attributed to overall service demand such as transients, demographics, distribution of population, socio-economic factors, etc. Of note for GHFD, however, is the fact that it does run an unusually high number of mutual aid responses. The department is responding to a substantial number of incidents in areas outside its district, predominantly Yaphank. The following figure illustrates the mutual aid workload for GHFD as compared to overall workload.

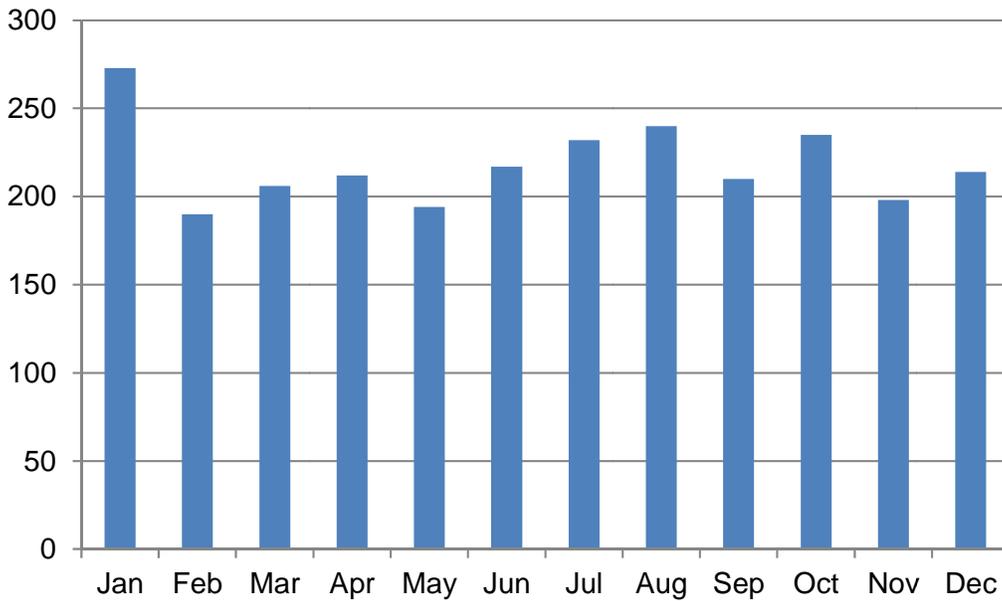
Figure 23: Impact of Mutual Aid on Workload



In 2006, 29.5 percent of the GHFD overall workload was for mutual aid; in 2007 that figure climbed to 31.3 percent. Although the mutual aid percentage is reduced in 2008 and 2009 to 22.9 percent and 22.0 percent, respectively, data provided for those years did not separate out mutual aid responses for fire, only for EMS.

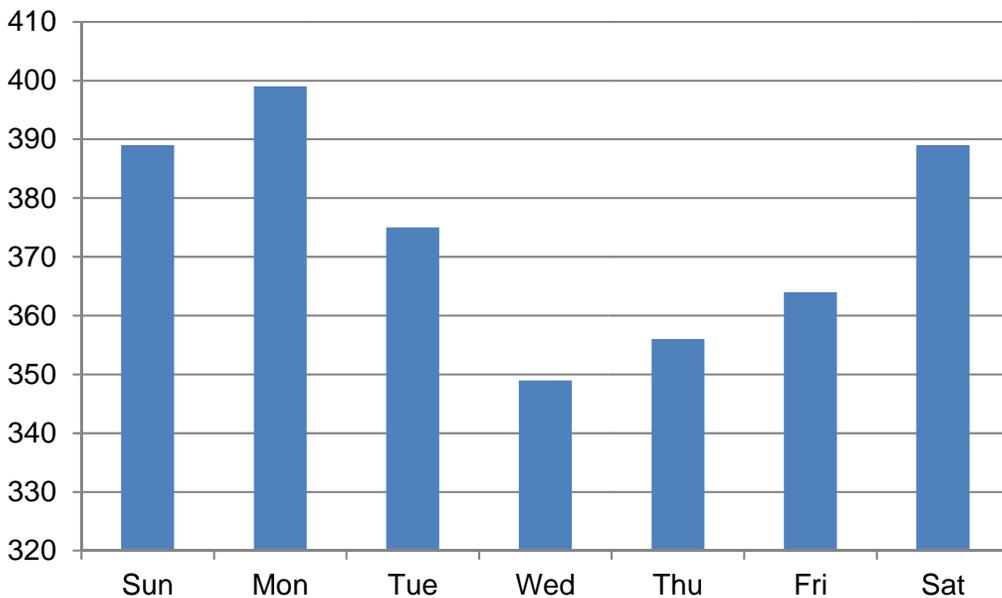
A review of incidents by time of occurrence also reveals when the greatest response demand is occurring. The following charts show how activity and demand changes for GHFD based on various measures of time. ESCI began by breaking down the workload into monthly increments. The following analysis used aggregate data from January 1, 2006, through December 31, 2009, in order to show overall trends in temporal variation.

Figure 24: Monthly Workload



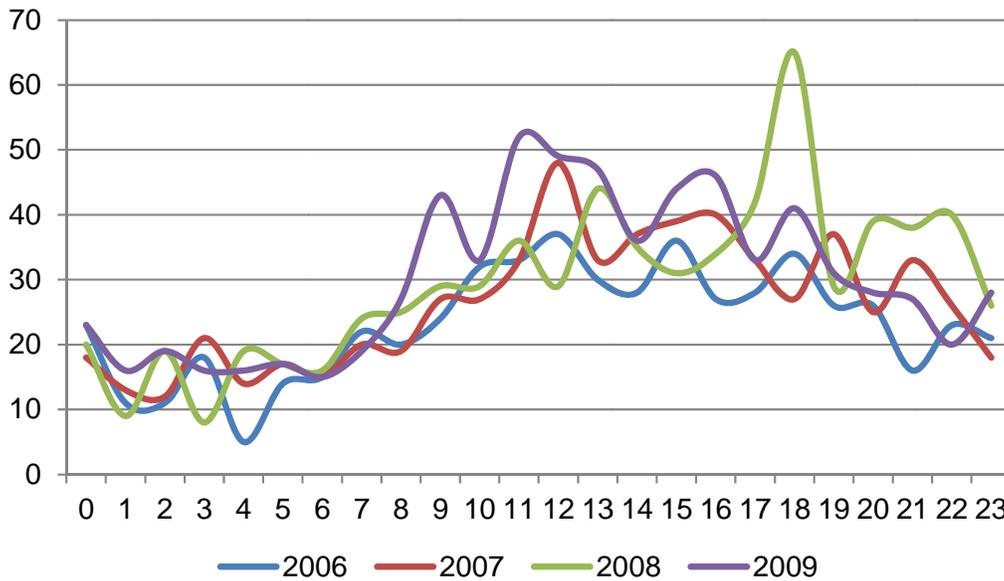
Monthly workload for fire calls varies in any given year. Generally, service demand is higher in January as well as during summer months. In further analysis, workload is examined by day of the week. Over the data period evaluated, the busiest day of the week was Monday while the least busy day of the week was Wednesday.

Figure 25: Workload by Day of Week



The final analysis of historical workload concludes with examination of call types by hour of day. The hours of peak activity can strain an under-equipped or under-staffed fire department. Understanding when peak activity occurs begins the process of developing deployment strategies and needs assessment. This figure shows each year individually in order to show how call volume is relatively consistent by time of day year after year with only minor divergences.

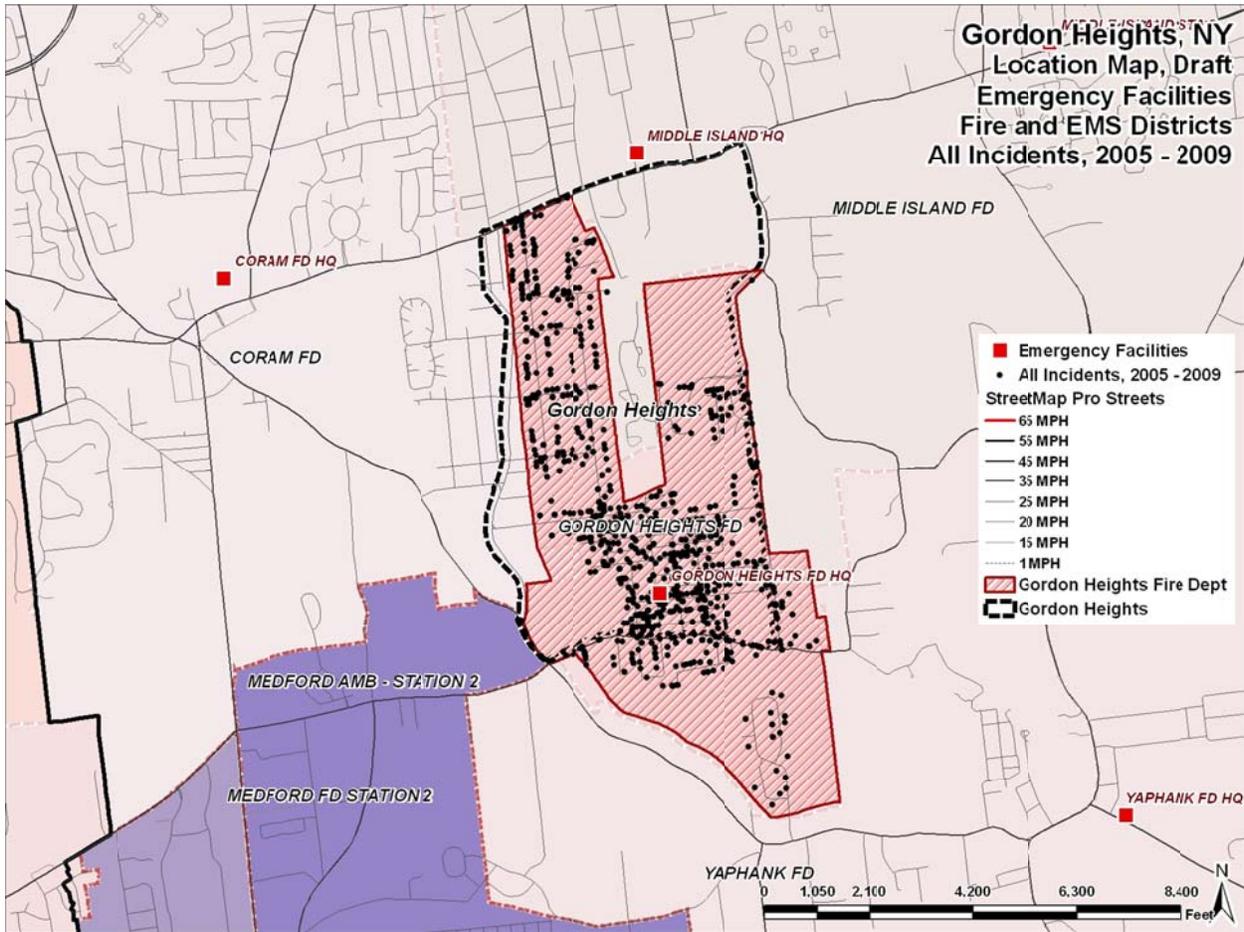
Figure 26: Workload by Hour of Day



Activity for fire and EMS calls generally begins to increase between the hours of 6:00 a.m. and 7:00 a.m., reaching peak volume during the midday hours before gradually declining into the evening. Peak activity times can be reflected in response time performance in certain cases. The impact of response time on the outcome of emergency incidents has been exhaustively studied, both in the laboratory and in historical data, with a predictable correlation between the two. Though seemingly intuitive, it is still useful to review how longer response times can have a negative effect on the ability to suppress fires, particularly in structures, or to successfully intervene in a life-threatening medical emergency. Response time performance is examined in a separate section of this report.

The following figures plot service demand within the District geographically.

Figure 27: Total Incidents, 2005 - 2009



Service demand over the previous five complete years of data is well distributed throughout the District. Other ways of evaluating service demand is to evaluate how demand is distributed between fire and EMS incidents. The following figures display fire and EMS as separate illustrations.

Figure 28: Fire Incidents, 2005 - 2009

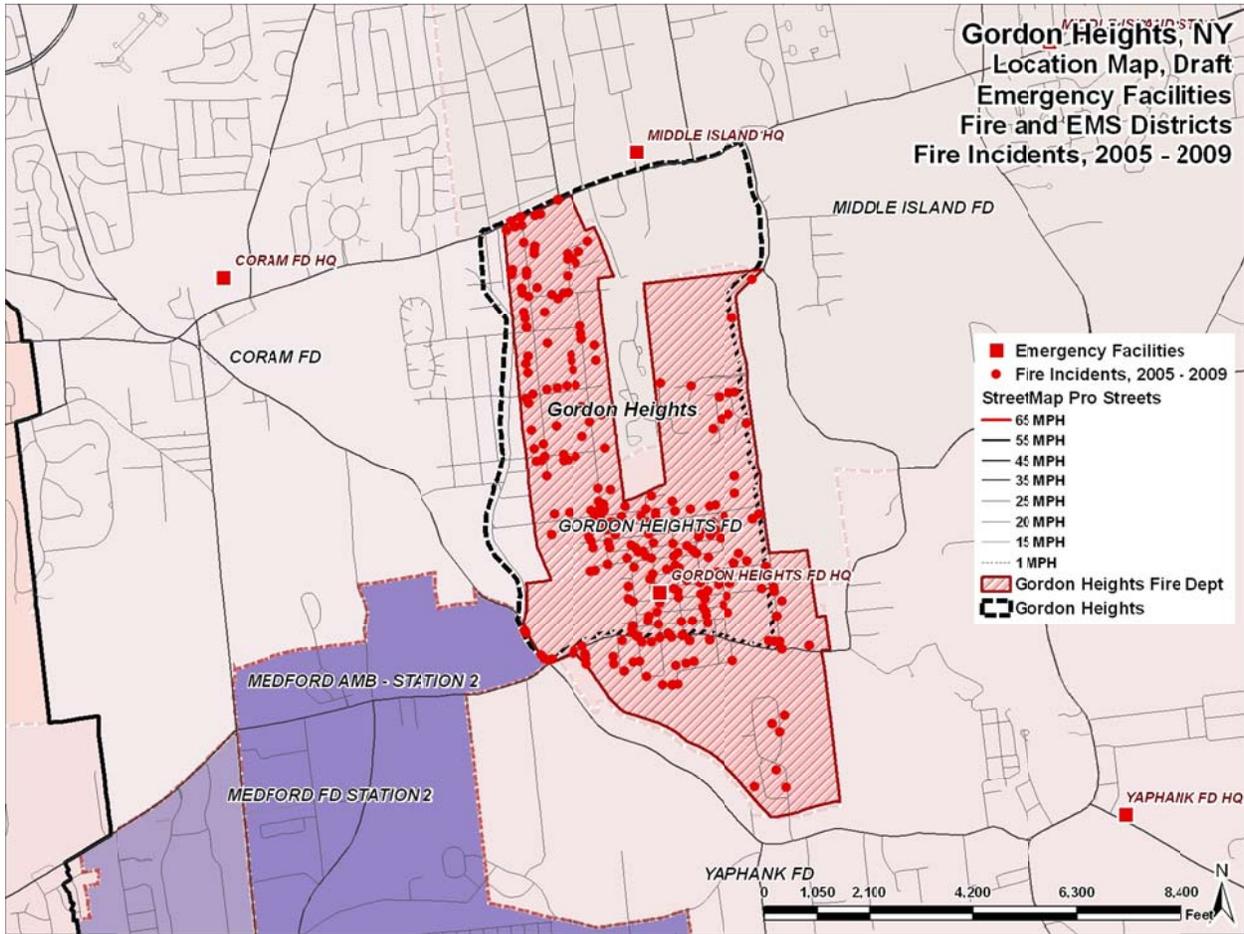
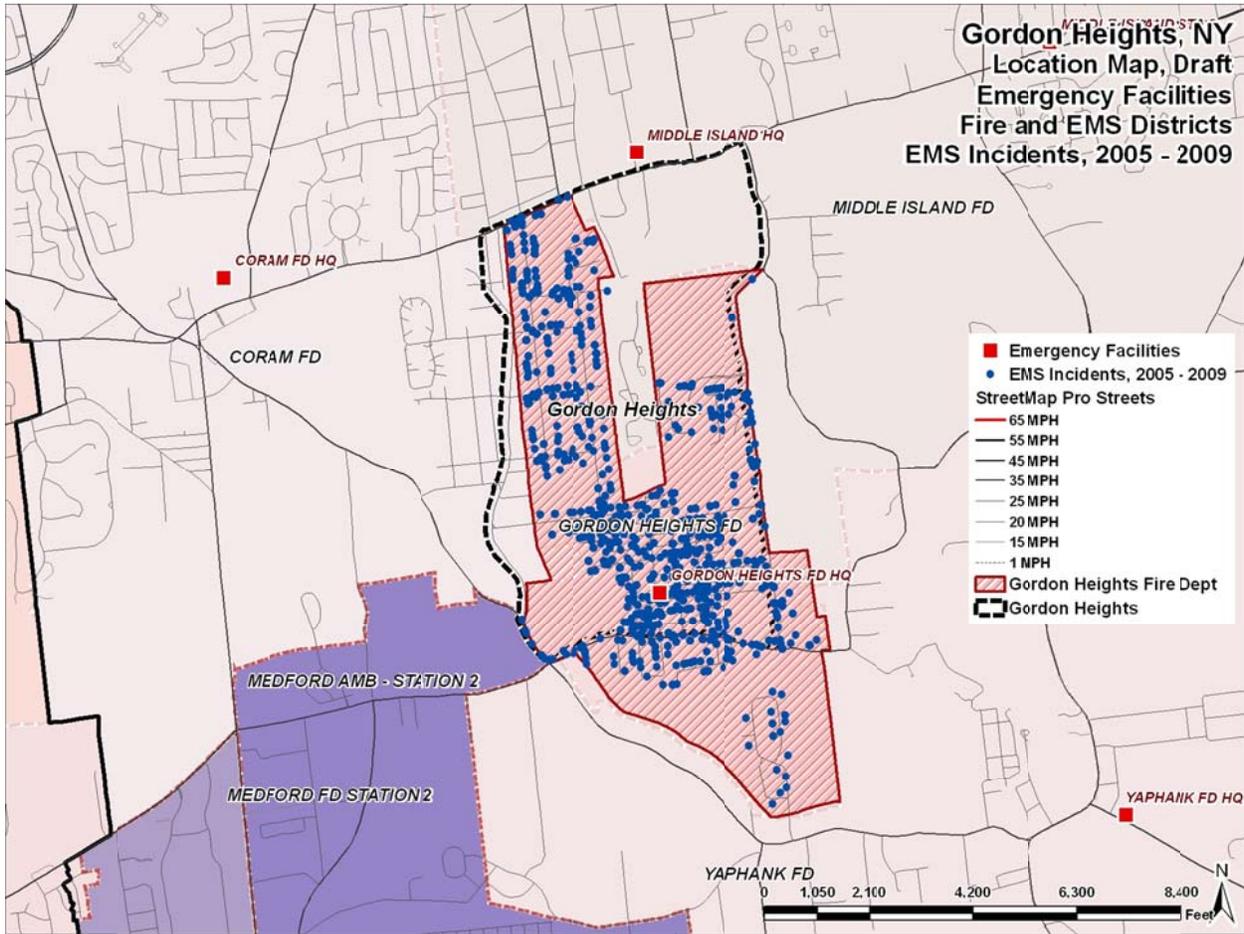


Figure 29: EMS Incidents, 2005 - 2009

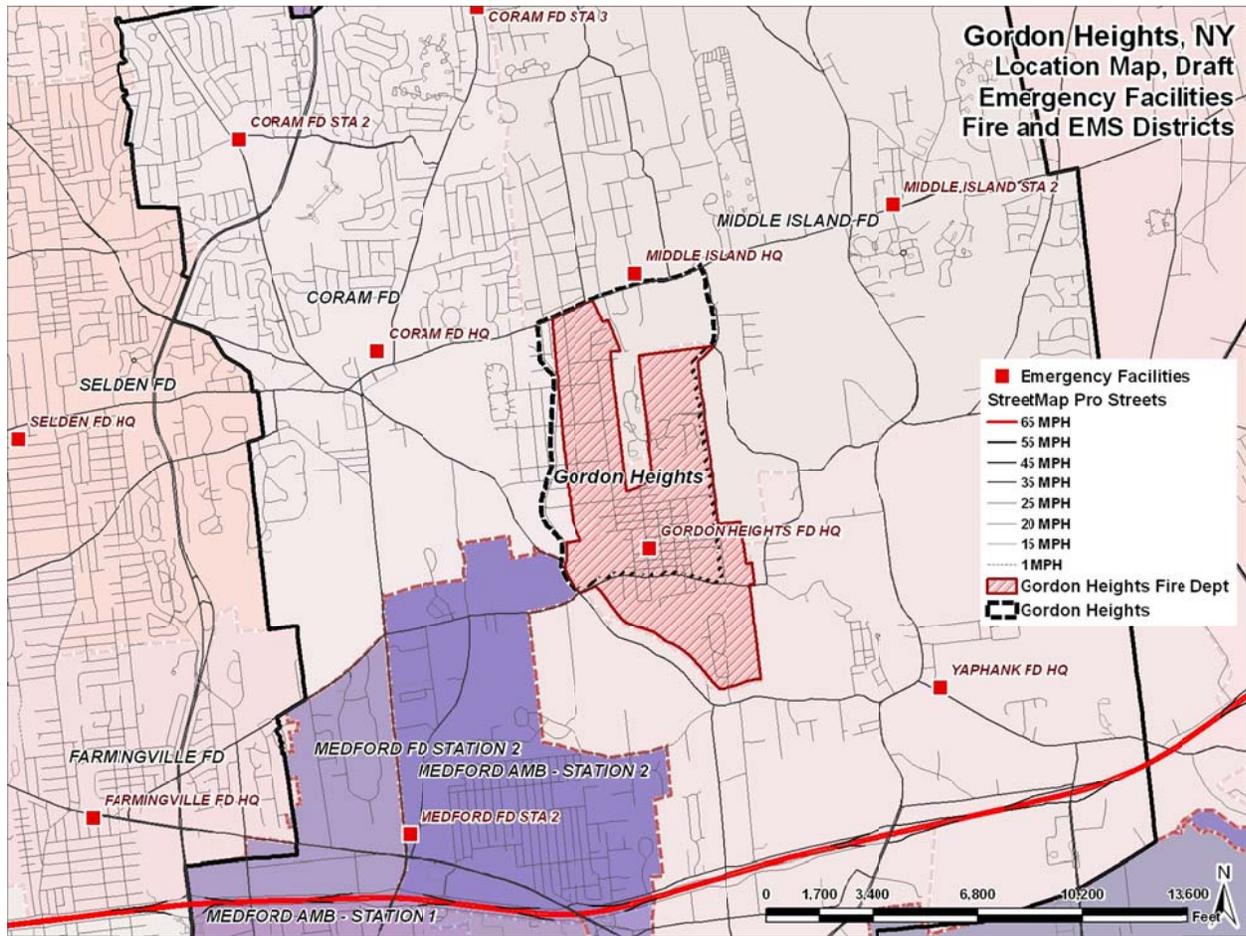


The previous two figures indicate that, although well distributed throughout the entire District, EMS service demand is much higher than fire workload, confirming the tabular analysis provided earlier in this report.

**Distribution**

GHFD operates from a single location positioned near the southern boundary of the District but in the center of the most densely populated area. The following map illustrates the location of the station and the District boundary as well as the relative primary response areas of those districts surrounding Gordon Heights.

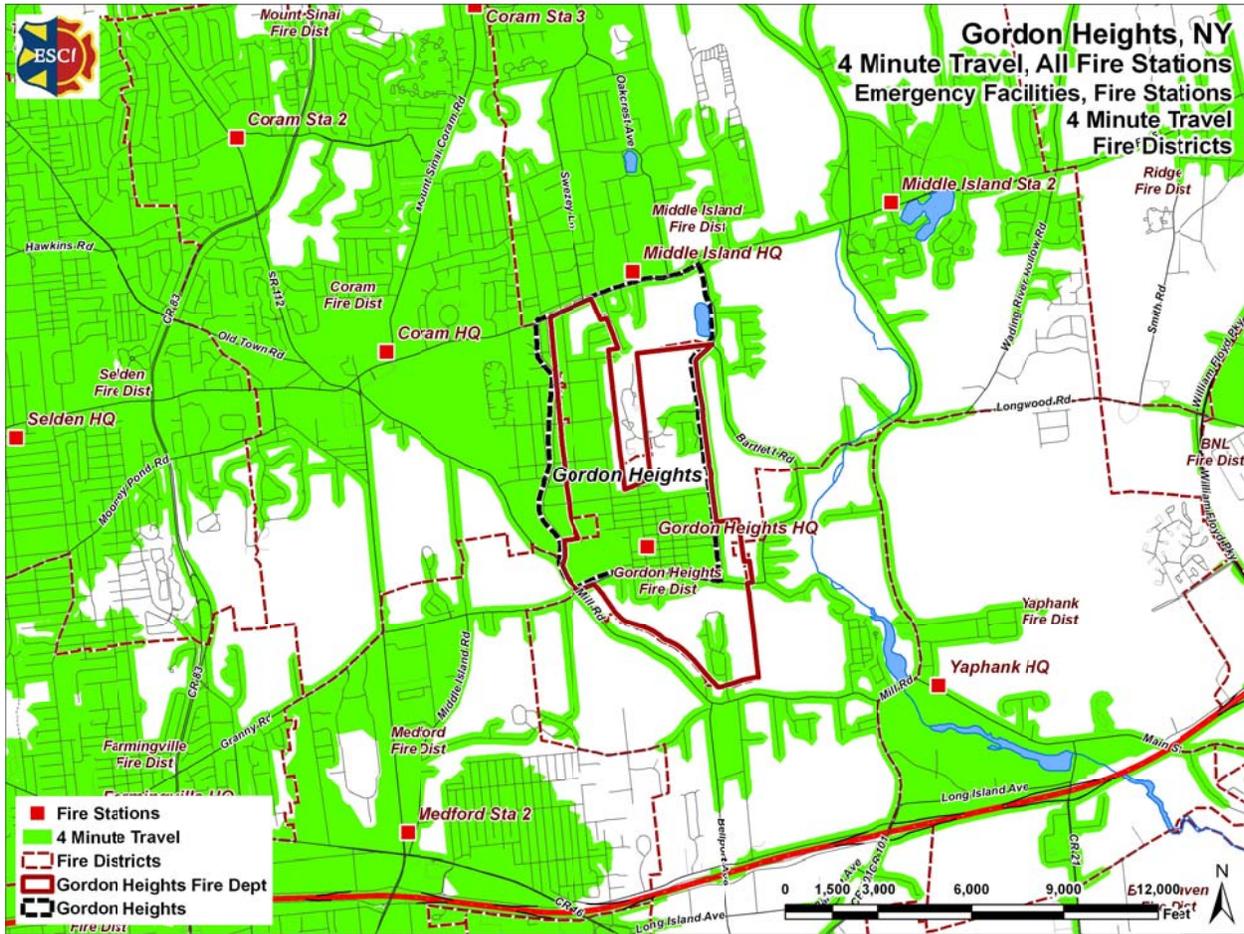
Figure 30: Current Facility Deployment



Of note in the preceding figure is that the GHFD boundary does not correspond to the area of the Gordon Heights community as noted by the U.S. Census Bureau.

The following map demonstrates the travel time capability of emergency apparatus when they leave the GHFD station, as well as apparatus responding from each surrounding fire station. Adjustments to speed capability of the streets were made to account for negotiating turns and intersections.

Figure 31: Travel Time Capability



**Distribution Analysis – Community Fire Protection Insurance Rating**

This report section examines the department’s coverage based upon credentialing criteria for the Insurance Services Office (ISO). The ISO reviews the fire protection resources within communities and provides a Public Protection Classification™ (PPC) rating system from which insurance rates are often based. The rating system evaluates three primary areas: the emergency communication and dispatch system, the fire department, and the community’s pressurized hydrant or tanker-based water supply. The overall rating is then expressed as a number between 1 and 10, with 1 being the highest level of protection and 10 being unprotected or nearly so. GHFD received 8.39 out of a possible 10 points for the dispatch system, 34.29 out of 50 for the fire department, and 39.40 out of 40 for the water supply; resulting in a score of 3 for the entirety of the District. It is also important to note that, according to the Insurance

Services Office website information on the PPC™ minimum criteria, “the ISO generally assigns Class 10 to properties beyond five road miles” from a fire station.<sup>5</sup>

A community’s PPC™ can affect decisions insurers make regarding the availability and price of property insurance. Many insurance companies make at least some use of the classification to price their policies, determine which types of coverage to offer, or to determine deductibles for individual homes and businesses. Notwithstanding the community’s classification, individual insurance companies - not the Insurance Services Office, establish the premiums. The particular system that any given company uses when calculating premiums for property insurance may be affected by that company’s fire-loss experience, underwriting guidelines, and marketing strategy. This makes it extremely difficult to generalize how any improvement or decline in the PPC™ rating will affect specific insurance policies or premiums.

The following figure shows how insurance premiums might vary for two typical structures under a couple of insurance companies’ current rating schedules. While these figures are reasonable examples of the impact the PPC™ can make on insurance premiums, the value of the premium credits for the different PPC™ ratings will vary among insurance companies. This example chart was obtained from a report published by the League of Minnesota Cities entitled *The ISO Fire Protection Rating System*.

**Figure 32: Representative Insurance Premiums by Fire Protection Class**

<b>Representative Insurance Premiums</b>		
<b>Fire Class</b>	<b>\$150,000 Residence</b>	<b>\$1,000,000 Office Building</b>
1	\$670	\$2,950
2	\$670	\$2,980
3	\$670	\$3,020
4	\$670	\$3,040
5	\$670	\$3,060
6	\$670	\$3,120
7	\$670	\$3,230
8	\$777	\$3,330
9	\$972	\$3,440
10	\$1,072	\$3,710

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<sup>5</sup> Information obtained from the Insurance Services Office website, [www.isomitigation.com](http://www.isomitigation.com).

According to the report, there are some points to note regarding the chart:

1. *In this schedule, no additional credit is given on residential property for a fire class better than 7. The reason has largely to do with the role that water supply plays in the ratings. Having a better water supply helps in fighting fires in larger commercial structures, and therefore is reflected in a better rating. But for most residential fires a lesser water supply is actually needed, and having more than that available really doesn't help the fire department fight that particular residential fire any better. There's some variation among insurance companies (e.g., some might allow additional credit for class 6, others might lump classes 7 and 8 together for rating purposes, etc.) but this general pattern is fairly typical for residential premium structures.*
2. *Not all insurance companies use the ISO classifications. This is especially true for residential coverage. Some companies have their own rating systems based on their own historical loss data for the area rather than on an evaluation of the fire protection in the area. Other insurance companies use their own systems for rating the fire protection for a particular property; a company might classify properties based on the individual property's distance from a fire station and water supply, for example.<sup>6</sup>*

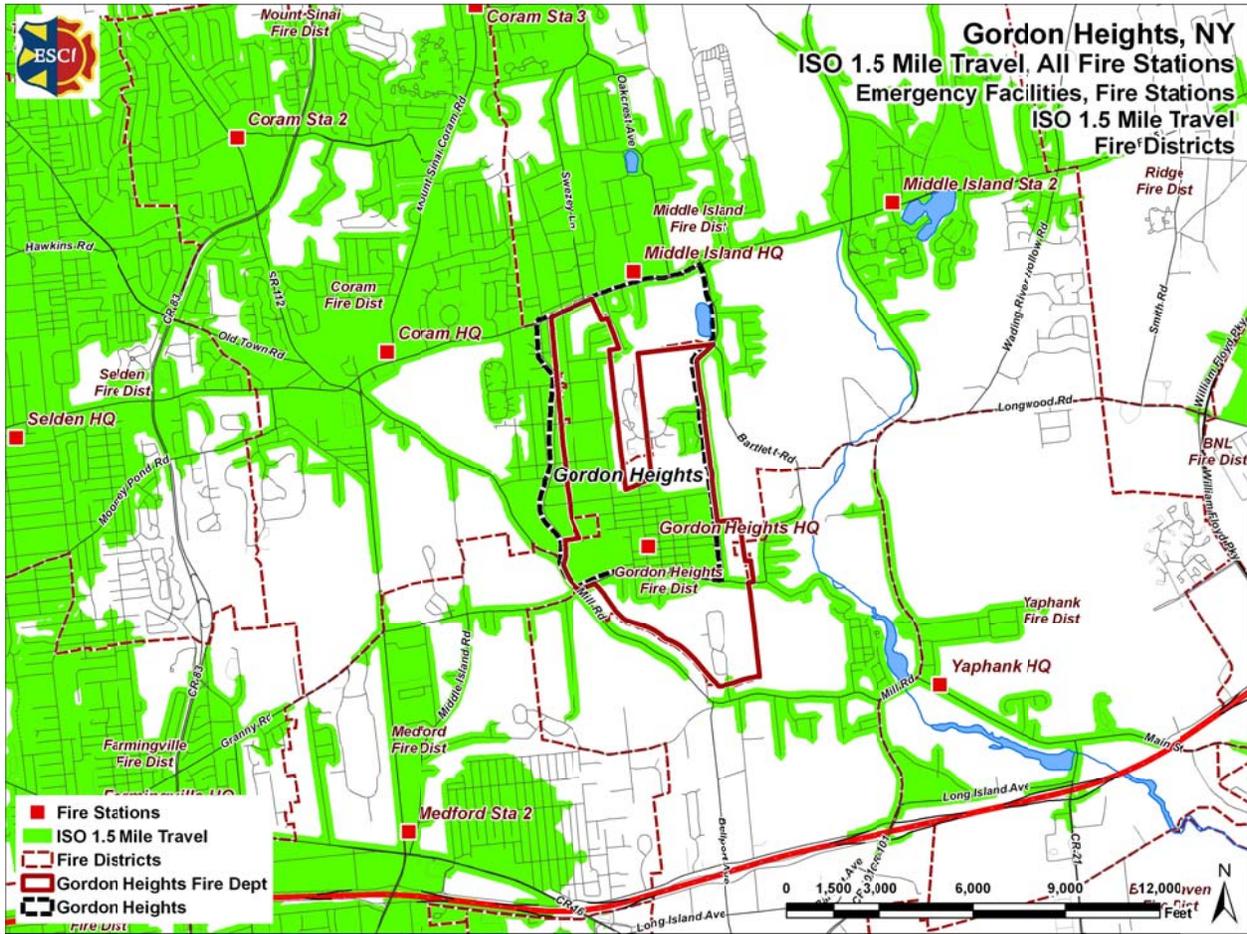
While distribution credits in the PPC™ may not be the most important factor in the decision to add facilities, it is acknowledged that this issue does affect the community's rating classification and should be considered. The next few paragraphs of the report examine the travel coverage based upon the PPC credentialing criteria by the Insurance Services Office.

To receive maximum credit in this section, all “built-upon” portions of a community would need to be within 1.5 road miles of an engine company and 2.5 road miles of a ladder or service company. In order to determine the distribution of engine companies across “built upon” areas, ISO reviews the response area of each existing engine and identifies the number of fire hydrants within those response areas. ISO analyzes whether there are additional geographic areas of the city outside of the existing engine company response where at least 50 percent of the number of hydrants served by the largest existing response area could be served by a new engine. For ISO purposes, the response area is measured at 1.5 miles of travel distance from each engine company on existing roadways. In order for a structure to be in a protected rating for insurance purposes, it should be within five miles of a fire station. The following figure illustrates how much of the current area lies within and without the 1.5-mile ISO engine distance.

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<sup>6</sup> League of Minnesota Cities. *The ISO Fire Protection Rating System*. [www.lmnc.org](http://www.lmnc.org).

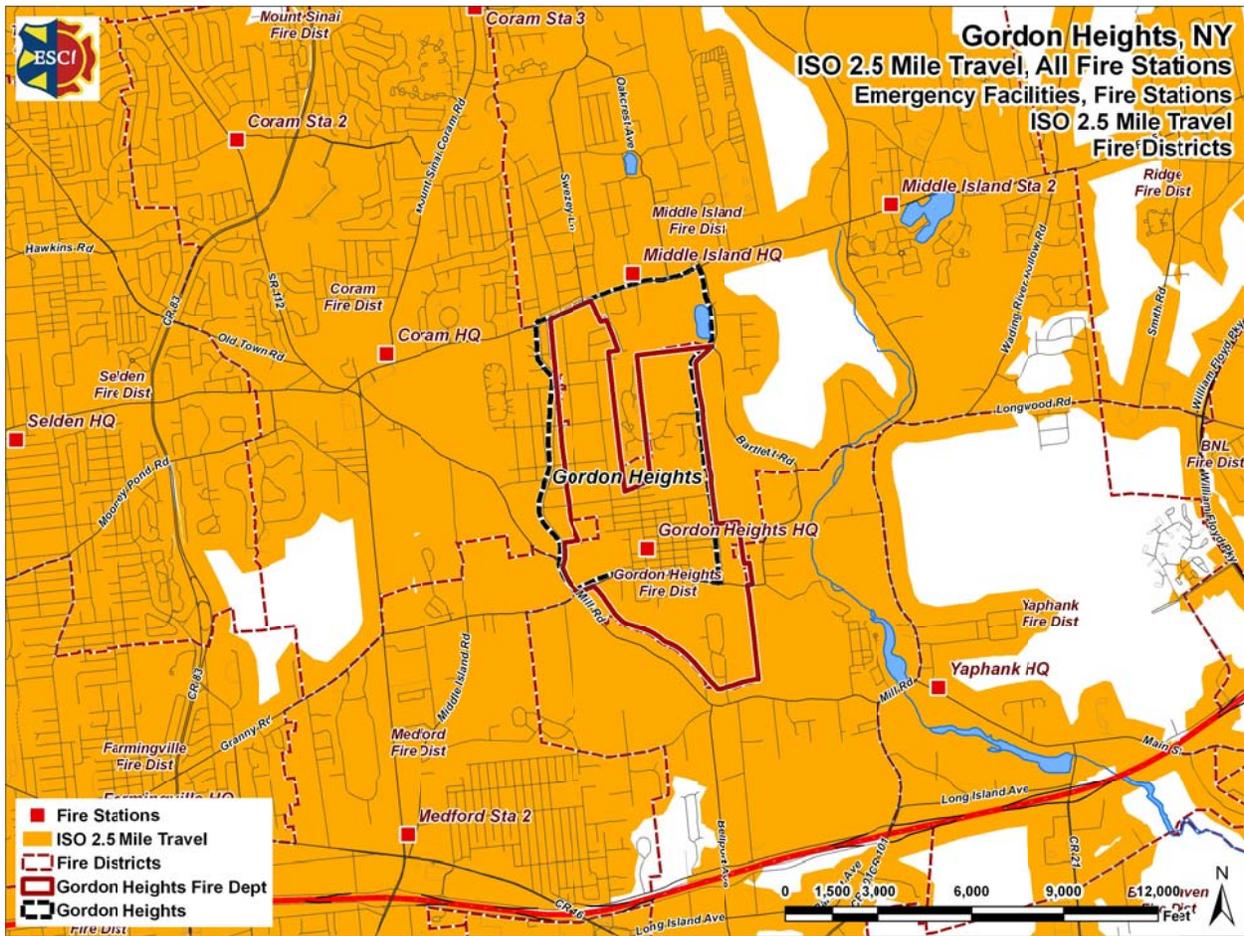
Figure 33: ISO Engine Distance



A vast majority of GHFD is within 1.5 miles from a current fire station.

In similar fashion, to achieve optimum credit for the number of truck companies, ISO reviews the response area of each existing ladder company and identifies the number of fire hydrants within those response areas. ISO analyzes whether there are additional geographic areas of the city outside of the existing ladder response areas where at least 50 percent of the number of hydrants served by the largest existing response area could be served by a new truck were one to be added. For ISO purposes, the response area is measured at 2.5 miles of travel distance from each ladder company on existing roadways. The following figure illustrates the area of coverage within the 2.5-mile travel distance of a fire station that houses an aerial apparatus.

Figure 34: ISO Truck Distance



All of the GHFD area is within 2.5 miles of a stationed aerial apparatus. Areas can receive similar credit for a service company without the requirement of an elevated device and can even receive partial credit for a service company if other apparatus, such as an engine, carries a complement of service company equipment. However, a ladder company is not required to have an elevating ladder or aerial device unless there are a sufficient number of buildings that would meet the three-story height and square footage limits. During ISO’s last evaluation of GHFD, the only fire stations that met the height requirement for an elevating ladder or aerial device was the fire station itself.

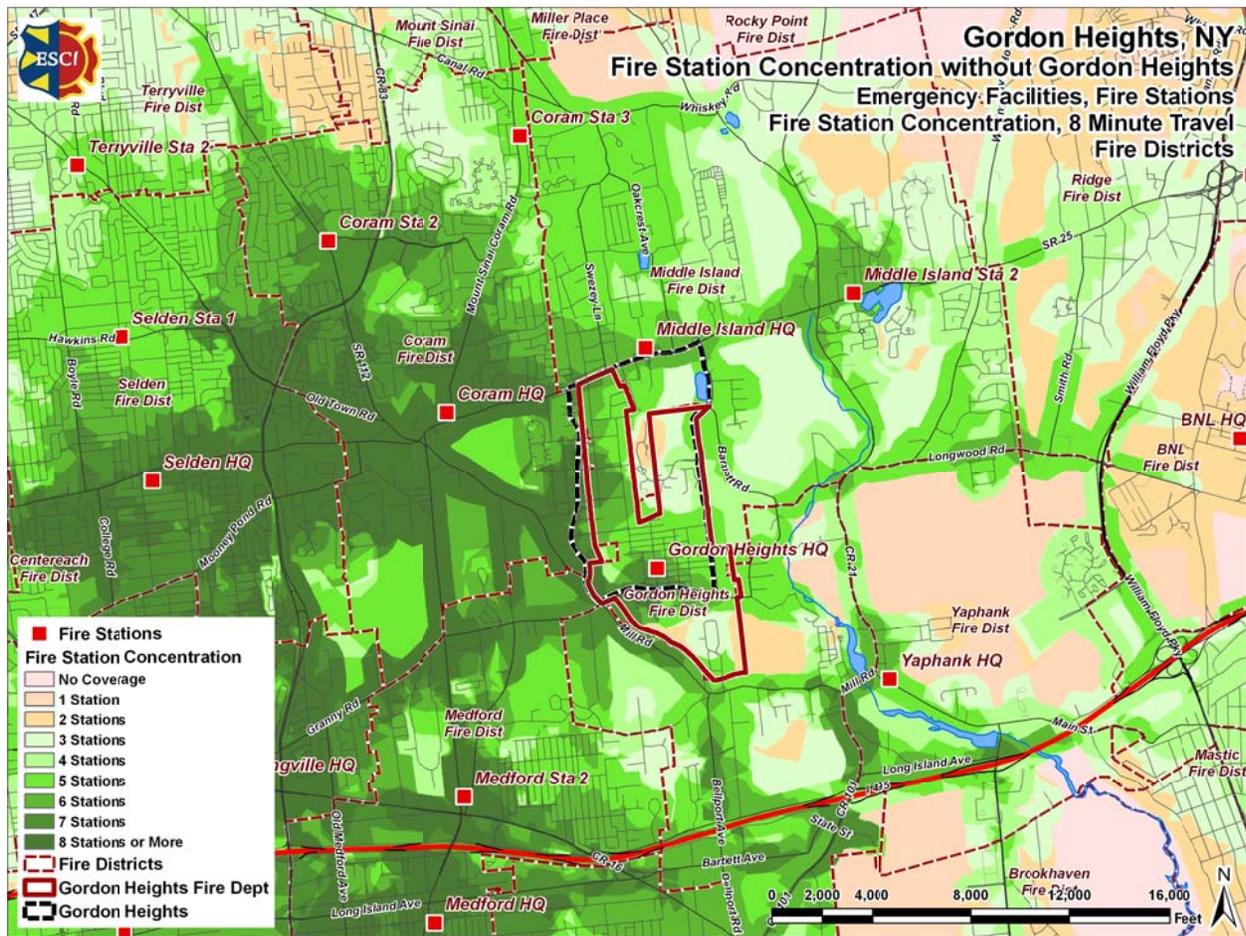
Equally important are buildings with large square footage. An aerial provides one way to train water over the roofs of these structures (“Big Box” stores like department stores, national hardware retailers, and malls). The only multi-storied structures within the GHFD primary

response area are two-story residential structures; there are no structures with a total square footage of 25,000 square feet or more.

**Concentration**

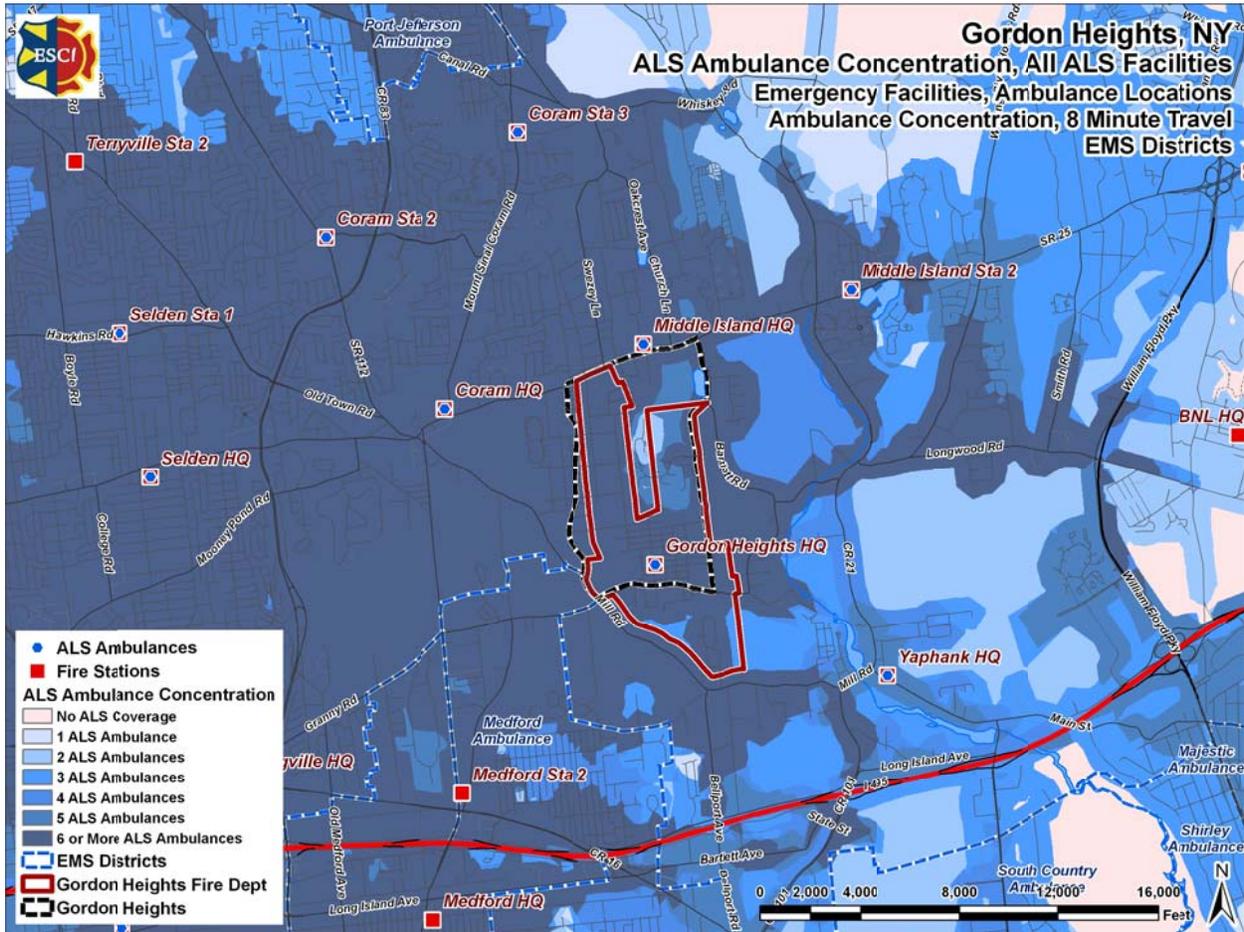
Standard firefighting procedures call for the arrival of the entire initial assignment (sufficient apparatus and personnel to effectively combat a fire based on its level of risk) within a relatively short amount of time. This is to ensure that enough people and equipment arrive soon enough to be effective in controlling a fire before substantial damage occurs. Because of the volunteer nature of GHFD and the other surrounding districts, department personnel may make requests for various apparatus from mutual aid departments depending upon the needs of the incident. The number of personnel recommended for a structure varies greatly. The following map series illustrates the depth of resources and the geographic concentration within an eight-minute travel time, including mutual aid station resources.

**Figure 35: Effective Response Force – Stations**



The entirety of GHFD can be reached by at least two stations within eight minutes of travel with a majority of the area capable of being reached by five stations or more within eight minutes of travel. The following figure illustrates how much of the area is capable of being covered by Advanced Life Support resources.

Figure 36: Advanced Life Support Concentration



A majority of the GHFD area can be reached by no less than two ALS units within an eight-minute travel time from existing station locations.

**Reliability and Concurrency**

The workload of an emergency response unit can also be a factor in response time performance. The busier a given unit, the less available it is for the next emergency. If a response unit is unavailable, then a unit from a more distant station must respond, increasing overall response time. A cushion of surplus response capacity above average values must be maintained due to less frequent but very critical times when atypical demand patterns appear in

the system. Multiple medical calls, simultaneous fires, multi-casualty events, or multiple alarm fires are all examples.

Many times, multiple agencies are dispatched to a single alarm and this is reflected in the preceding analysis as it is part of a department's total workload. While mutual aid between departments is common, this practice reduces resources otherwise available for an agency. To the degree that this occurs, the reliability of a department can be negatively affected. Unfortunately, due to the format in which incident data was provided, an analysis of unit reliability and call concurrency could not be conducted.

### **Response Performance**

The ultimate goal of any emergency service delivery system is to provide sufficient resources (personnel, apparatus, and equipment) to the scene of an emergency in time to take effective action to minimize the impacts of the emergency. This need applies to fires, medical emergencies, and any other emergency situation to which the fire department responds.

Emergency service agencies should have clearly defined response performance objectives established to allow evaluation of capability and service delivery. An organization's performance objectives should clearly state both the current and desired emergency service capabilities in very measurable terms. For emergency response, performance objectives should define response performance using both time and resource criteria. For example:

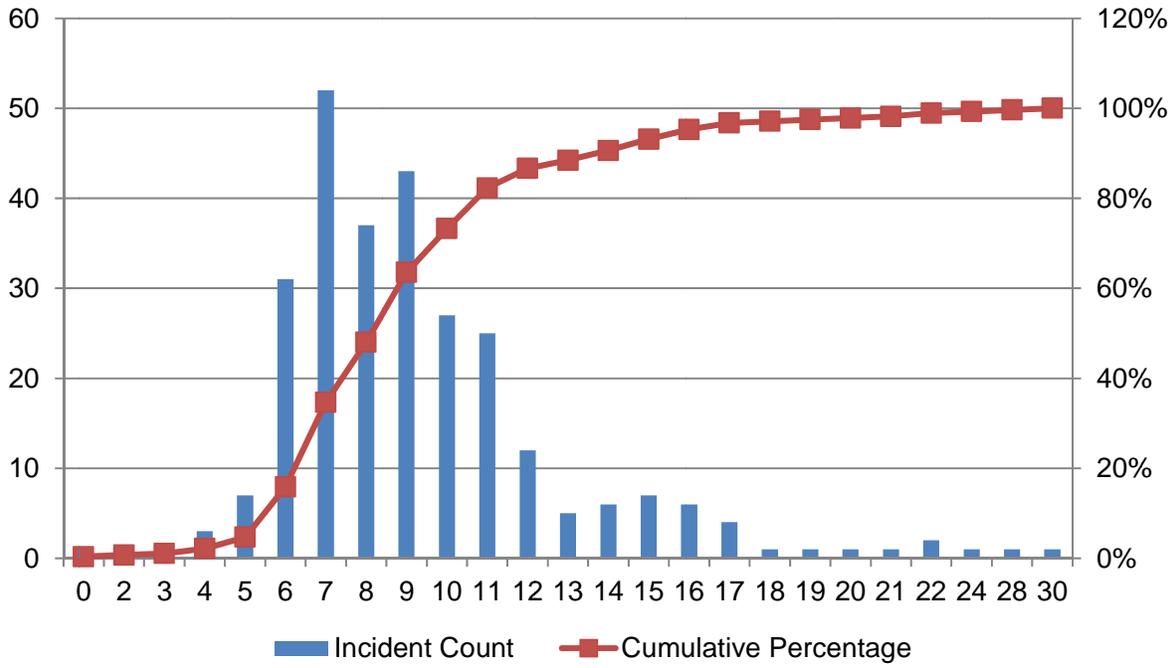
1. *Provide for the arrival of adequate resources to initiate basic emergency medical services at the scene of any medical emergency within "X" minutes following dispatch, 90 percent of the time.*
2. *Provide for the arrival of adequate resources to initiate interior fire suppression operations at the scene of any fire within "X" minutes following dispatch, 90 percent of the time.*

With specific performance criteria, a fire department can develop deployment methodologies to achieve desired levels of performance, and can quickly identify when conditions in the environment degrade performance. GHFD has not officially adopted a response time performance standard.

Due to the nature of the reporting which recorded each unit's time intervals as well as the 'announcement' alarm time, the first arriving unit on scene was utilized for the analysis. The

following charts illustrate the response time history for GHFD over the period January 1, 2006, through December 31, 2009.<sup>7</sup>

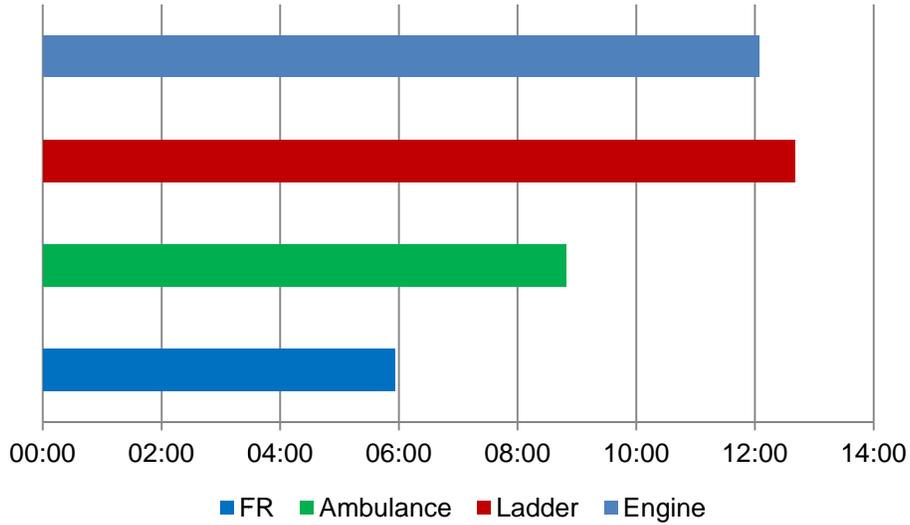
Figure 37: Response Time Performance Frequency



The most frequently recorded response time for calls is within the seventh minute. The 90<sup>th</sup> percentile response time for engine responses is 14 minutes 43 seconds total response time from time of dispatch. The following figure illustrates the *average* response time by apparatus type.

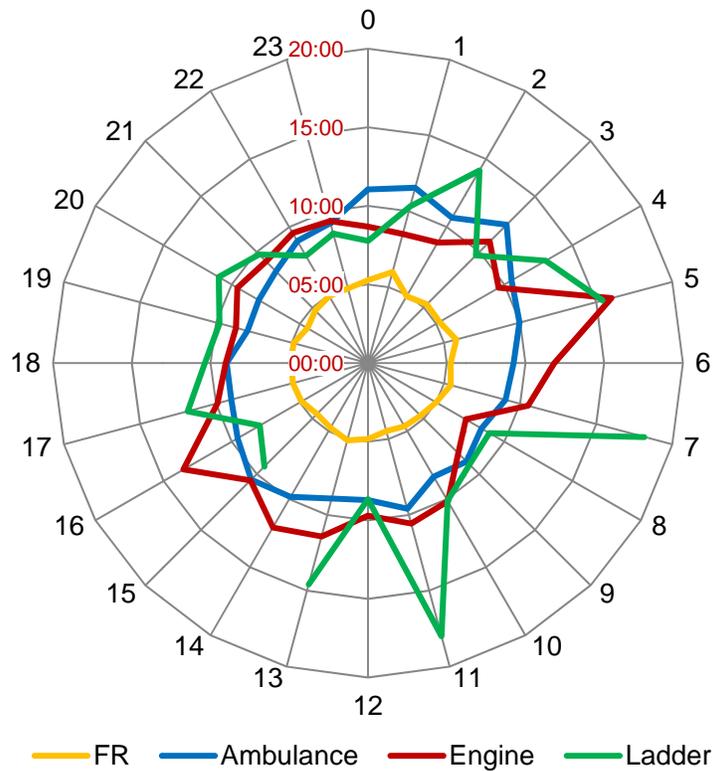
<sup>7</sup> Mutual aid calls and non-emergent calls were removed from response time analyses as they were found.

Figure 38: Average Response Time by Apparatus Type



Response times can vary by time of day in reflection of service demand workload, traffic congestion, weather, and distance to the call from the station, to name but a few. The following chart illustrates how the average response time performance varies by the hour of day.

Figure 39: Average Response Time by Hour of Day by Apparatus Type

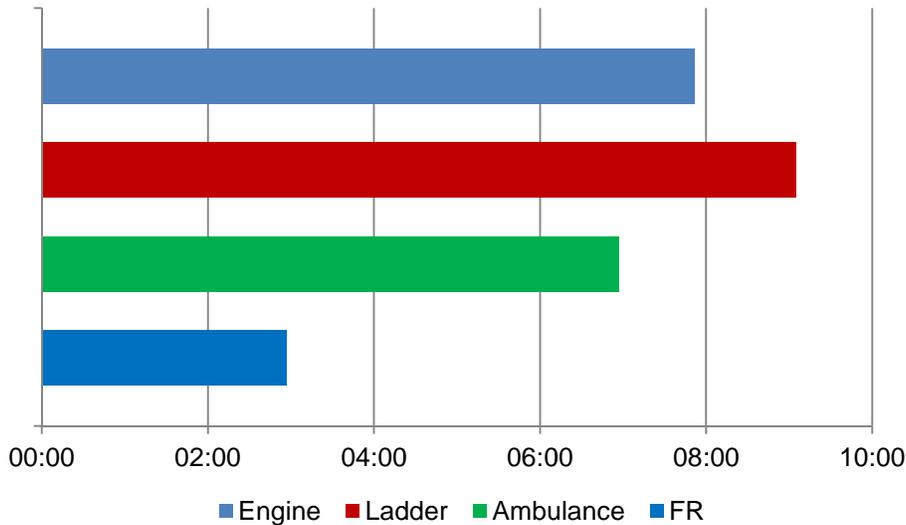


Areas within the preceding figure without a data point indicate that no incident responses occurred during those specific hours of the day.

There are several factors that affect overall response time including, but not limited to, weather, distance, construction, and traffic congestion. However, one element of the overall response time performance that firefighters can control is the turnout time interval.

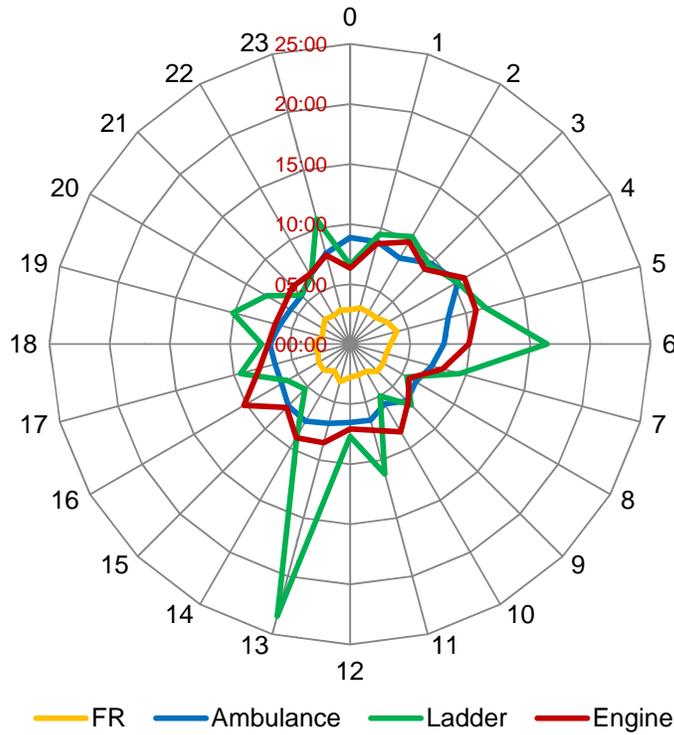
Figure 40 illustrates the turnout time of the first, second, and third apparatus measured on the average.

**Figure 40: Overall Average Turnout Times by Apparatus Type**



The following chart illustrates how the average turnout time performance varies by the hour of day.

Figure 41: Average Turnout Time by Hour of Day by Apparatus Type



**Comparison to National Standards and Industry Benchmarks**

The following table summarizes the information contained in the preceding paragraphs and figures as well as provides comparisons to national standards.

Figure 42: Comparison to National Standards and Industry Benchmarks – Engine Response

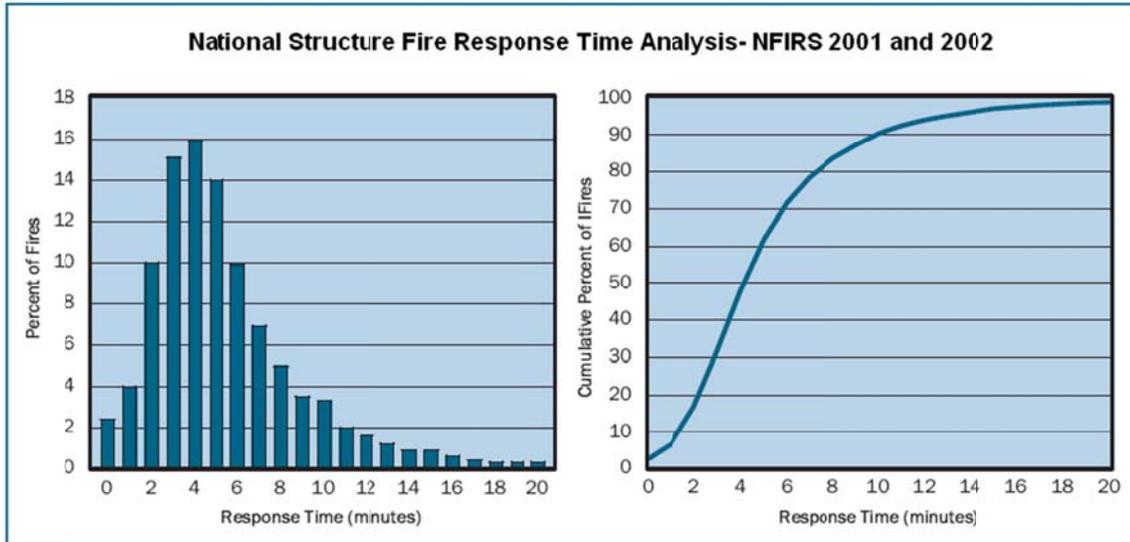
Performance Measure	Fractile	NFPA 1720 Urban	GHFD
Turnout	90 <sup>th</sup> Percentile	1:00	10:59
Total Response	90 <sup>th</sup> Percentile	9:00	14:43

As indicated in the figure above, GHFD has a turnout time 9 minutes 59 seconds longer than the recommended standard when measured at the 90<sup>th</sup> percentile. Similarly, GHFD total response times for an engine response are 5 minutes 43 seconds longer than the recommended standard when measured at the 90<sup>th</sup> percentile.

Although *NFPA 1720* is the national standard that applies to volunteer and combination fire departments, it is widely accepted that most departments find it difficult to meet that standard, particularly those utilizing solely volunteer fire suppression personnel. The following charts were

excerpted from a US Fire Administration publication that illustrates how response time correlates response time to the effectiveness of fire services.

Figure 43: National Structure Fire Response Time Analysis<sup>8</sup>

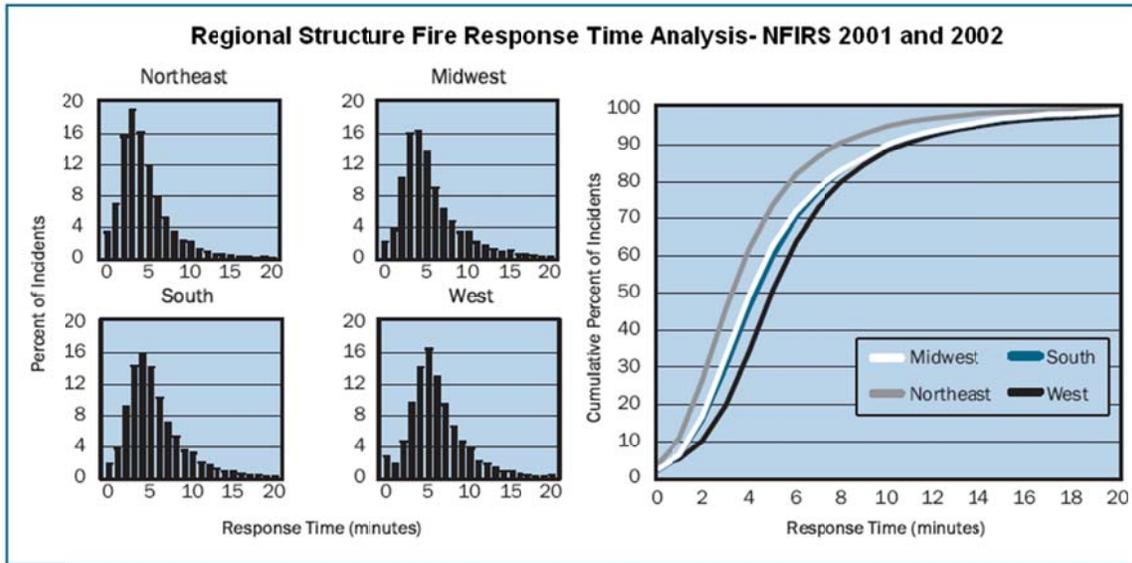


"Structure Fire Response Times"- U.S. Fire Administration/ National Data Center, January 2006

Nationally, the highest percentage (16 percent) of structure fires had a response time in the 4-minute range. The percent of structure fires with response times of three minutes and five minutes were not far behind at 15 percent and 14 percent, respectively. Overall, 61 percent of structure fires in 2001 and 2002 had a response time of less than six minutes.

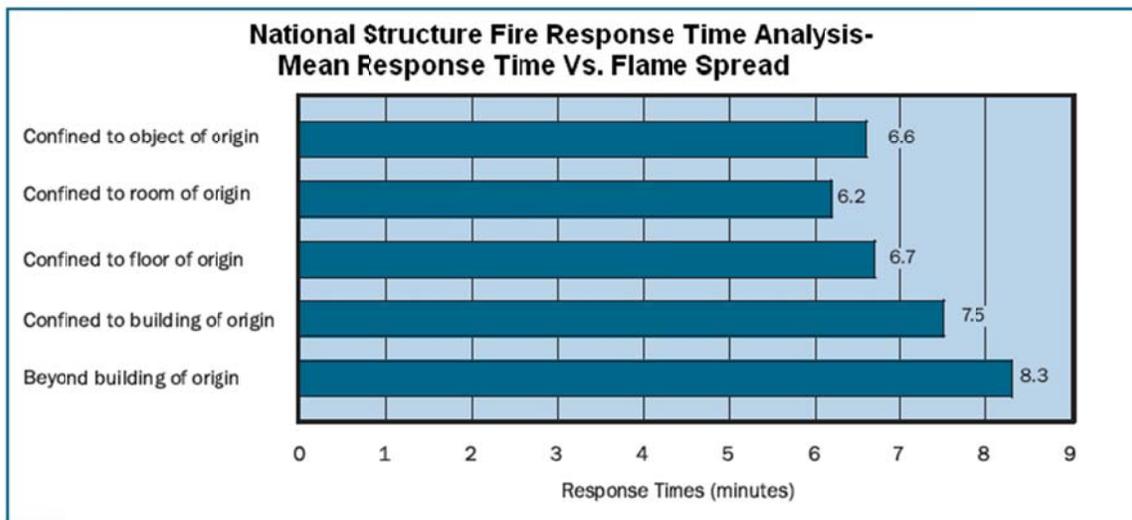
<sup>8</sup> United States Fire Administration. "Structure Fire Response Times." *National Fire Data Center Topical Fire Research Series*, Volume 5- Issue 7 from January 2006.

Figure 44: Regional Structure Fire Response Time Analysis



"Structure Fire Response Times"- U.S. Fire Administration/ National Data Center, January 2006

Figure 45: National Structure Fire Response Time Analysis – Flame Spread



"Structure Fire Response Times"- U.S. Fire Administration/ National Fire Data Center, January 2006; NFIRS Data 2001 and 2002

The figure shows that the mean response time was lowest for fires confined to the room of origin (less than seven minutes) while fires that spread beyond the building of origin have the highest mean response time (less than nine minutes). As stated previously, the average response time for GHFD is in excess of ten minutes with a response time of nearly 15 minutes when measured at the 90<sup>th</sup> percentile for engine responses.

## **Mutual Aid Systems**

Nearly every emergency services agency across the United States uses at least some level of mutual aid in order to provide services to their individual communities. How that mutual aid is active, how it is used, and reciprocity are all elements of mutual aid that must be considered. For the purposes of this report, there are three basic types of mutual aid: Basic mutual aid upon request, written mutual aid agreements, and automatic aid agreements. Each of these will be discussed individually and a review of how GHFD uses mutual aid will conclude this section.

### ***Basic Mutual Aid Upon Request***

This form of mutual aid is the most basic and is typically permitted under broad public laws that allow communities to share resources upon request during times of disaster or during local and regional emergencies. Often, these broad laws permit communities to make decisions quickly regarding mutual aid under specified limitations of liability, allowing a community to tap into resources from their immediate neighbors, as well as very distant resources in communities with which they have very little day-to-day contact. Under this level of mutual aid, specific resources are typically requested by the fire department, through the chain of command, and sometimes coordinated by local or regional emergency management personnel. Depending on the level of the request, the response can sometimes be slow and the authorization process may be cumbersome due to the exchange of official information or even elected officials' approval that may be required.

### ***Written Mutual Aid Agreements***

This form of mutual aid goes one step further by formalizing written agreements between communities (typically immediate neighbors in a region) in an effort to simplify the procedures and, thus, cut response times. Usually, these written agreements include a process that takes the request and response authorization down to a lower level in the organization, such as the Fire Chief or other incident commander. By signing such agreements, communities are “pre-authorizing” the deployment of their resources under specified circumstances as spelled out in the agreement. Most often, these agreements are generally reciprocal in nature and rarely involve an exchange of money for service, though they may include methods for reimbursement of unusual expenses for long deployments.

### ***Automatic Aid Agreements***

This form of mutual aid takes the process an additional step further by spelling out certain circumstances under which one or more specific resources will respond automatically upon notification of a reported incident in the neighboring community. In essence, automatic aid agreements expand a community's initial first alarm response to certain types of incidents by adding resources from a nearby neighbor to that response protocol. Typically, such agreements are for specific geographic areas where the neighbor's resource can be expected to have a reasonable response time and are only for specific types of incidents. An example of such an agreement would be having a neighboring community's engine respond to all reported structure fires in an area where that apparatus would be closer than the second or third-due engine from the home community. In other cases, the agreement might cover a type of resource, such as a tanker or aerial apparatus, which the home community does not possess. An example of this would be having a neighboring community's tanker respond to all reported structure fires in the areas of the home community that do not have pressurized hydrants.

Automatic aid agreements may be purely reciprocal or they may involve the exchange of money for the services provided. Purely reciprocal agreements are common, but typically are used where each community has some resource or service it can provide to the benefit of the other. These services or resources need not be identical. For instance, one community may send an engine to a second community on automatic response to structure fires, while the second community agrees to send a tanker to the first community's structure fire calls in exchange. These reciprocal agreements are sometimes made without detailed concern over quantification of the equality of the services exchanged, since they promote the effectiveness of overall services in both communities. In other cases, the written agreements spell out costs that one community can charge the other for services, typically where no reasonable reciprocation can be anticipated.

One primary purpose of automatic aid agreements is to improve the regional application of resources and staffing. Since fire protection resources are most frequently established because of the occupancy risks in a community and not necessarily a heavy workload, these resources may be idle during frequent periods of time. While fire departments make productive use of this time through training, drills, pre-incident planning, and other functions, the fact is that these expensive resources of apparatus and staff are not heavily tied up on emergency incidents. Communities that share certain resources back and forth are, in essence, expanding the

emergency response workload of those units across a larger geographic area that generally ignores jurisdictional lines. This expanded use of resources can strongly benefit both communities that might otherwise have significantly increased costs if they had to procure and establish all the same resources alone. Automatic aid can be used effectively to bolster a community's fire protection resources, or to reduce unnecessary redundancy and overlap between communities.

The most common type of mutual aid employed by GHFD is basic mutual aid upon request. No written mutual aid agreements were presented during data collection, but department staff indicated that mutual aid was a significant burden, particularly for medical incidents. In addition to the heavy mutual aid load as described previously in this report, reciprocal aid is apparently less than equitable. One department interviewed indicated that GHFD frequently responded into its area for medical incidents but that it was department policy not to respond into the GHFD unless the incident involved a child.

This type of non-reciprocal mutual aid should be investigated and remedied regardless of the outcome of this analysis.

**Recommendation:**

- Non-reciprocal mutual aid should be investigated and eliminated.

**Emergency Medical Services**

GHFD maintains EMT-CC level personnel to staff transport units that respond from the station to medical incidents throughout the GHFD primary area as well as for mutual aid requests. One person is on duty each day and is supported by volunteer personnel as incidents are dispatched. This section provides an evaluation of those services, focusing on logistical services, administrative and support services, and medical control and oversight.

***Logistical Support Services***

Emergency Medical Services (EMS) is delivered as an integrated service of GHFD. As such, all logistical support services exist under the overall logistical services of the fire department. Personnel assigned to the station are dedicated to EMS responses and do not respond to non-

EMS incidents unless to provide medical support on the scene of suppression and/or rescue incidents. Personnel are responsible for inspection of each ambulance and quick response vehicle at the beginning of their duty shift; supplies are replenished from the general station stock.

***Administrative and Support Services***

The process of delivering EMS to a community can become quite complicated, particularly when medical incidents make up a vast majority of the organization’s total workload. Proper administration and support of the EMS program is a critical function that must be given a priority.

For GHFD, the on-duty EMS personnel are responsible for their own administrative and support functions and the full-time District Secretary has limited involvement in EMS operations. Likewise, there is no 24-hour EMS supervision. Rather, a full-time ALS Coordinator, working typical business hours, is responsible for scheduling, equipment issues, etc. and is the sole provider of support services to the EMS personnel, aside from occasional volunteer support.

***EMS Policies, Procedures, and Processes***

In order for any EMS system to operate effectively and efficiently, firm policies, procedures, and processes must be in place and enforced. In addition, those implementing said policies, procedures, and processes must understand the effect of those implementations on the clinical personnel and, ultimately, the patient.

The EMS operations within GHFD operate within the broader policies and procedures of the fire department as outlined previously in this report. In regard to Advanced Life Support medical protocols, GHFD follows the protocols provided through the Suffolk County Regional EMS Council (REMSCO) and is provided medical oversight services through that same organization.

## Future Service Delivery Options

This section identifies strategies and recommendations for future resource deployment based on several alternatives ranging from status quo to dissolution of the District. The discussion included with each presented alternative includes recommendations, estimated costs, operational impacts, and social considerations. Before the alternatives are presented, however, discussion is provided in regard to continuation of emergency medical services and how the GHFD budget could be modified to reduce the tax burden on the community.

### Emergency Medical Services Feasibility Options

The provision of emergency medical services (EMS) throughout the Town of Brookhaven and specifically the Gordon Heights Fire District is an enormous undertaking and comprises a large percentage of the overall service demand and operating budget for each agency. In fact, as noted previously in this report, the provision of EMS for GHFD comprised 86 percent of overall service demand during 2009 and an estimated 54 percent of the fiscal year 2010 operating budget based on 2009 expenditure analysis. The Taxable Assessed Value (TAV) during the same period was \$2,318,301. That calculates to a tax rate of approximately \$32.588 to support the EMS function. The following figure illustrates how this calculated tax rate compares with other ambulance providers within the area.

**Figure 46: Comparative Tax Rate to Support EMS**

Ambulance Provider	Tax Rate 2010 to Support EMS
Gordon Heights	32.588
Shirley	12.765
Mastic Beach	10.137
East Port/East Moriches	9.387
Mastic	9.110
Medford	8.066
South County	6.369
Manorville	5.964
Mt. Sinai	4.463

Based on response information from 2009, GHFD responded to 605 EMS incidents (155 of which were mutual aid responses to neighboring jurisdictions). This calculates to a per incident actual cost of \$1,247.37. In comparison, Medford Ambulance operated on a 2009 budget of \$1,170,192 with a workload of 2,019 incidents for a per incident rate of \$579.59. Since fire

districts in New York are not allowed to bill patients for services, the total expenditures associated with the provision of EMS within GHFD, and any other fire district, is paid completely by the taxpayer. In many states, organizations involved in the transport EMS would bill patients transported or their insurance companies. This, however, is not the case in New York. New York State law prohibits fire districts from billing for the provision of EMS. Conversely, towns in New York have the authority to bill on behalf of ambulance districts and in an effort to offset much of their operational costs through the use of user fees rather than a strict reliance on taxation for funding.

Understanding that the provision of EMS within the Gordon Heights community is a necessity, the question arises as to how to best deliver that service. The current model has proven to be unsustainable due to the low overall tax valuation and subsequent high tax rate within the community. Additionally, the workload of the system is unusually high given the low resident population resulting in an extremely high per capita usage rate. Anecdotal information from across the nation indicates that the typical community EMS usage rate is around 10 percent. In other words, only 10 percent of the resident population would typically use the service. In Gordon Heights, the usage rate is closer to 21 percent, not including mutual aid responses to other jurisdictions.

There are four additional ambulance providers surrounding Gordon Heights: Coram Fire District, Medford Volunteer Ambulance, Middle Island Fire District, and Yaphank Fire District. A brief overview of each provider is presented below.

**Coram FD**

During 2009, CFD responded to 2,238 EMS incidents, including 63 mutual aid responses to other jurisdictions. The department functions with a paid staff on duty 24 hours per day and is supplemented by volunteers. CFD maintains three personnel on duty at all times and units are typically staffed with two personnel.

**Medford Volunteer Ambulance**

During 2009, MVAC responded to 2,019 EMS incidents, including 44 mutual aid responses to other jurisdictions. The department functions with paid staff on duty 24 hours per day and is supplemented by volunteers. MVAC maintains one to two personnel on duty at all times and units are typically staffed with one to two personnel per incident.

**Middle Island FD**

During 2009, MIFD responded to 1,238 EMS incidents, including 78 mutual aid responses to other jurisdictions. The department accomplishes its EMS mission similarly to the surrounding departments in that a paid staff is on duty 24 hours per day and is supplemented by volunteers. MIFD maintains two personnel on duty at all times and unit staffing is dependent upon the incident type dispatched.

**Yaphank FD**

During 2009, YFD responded to 509 EMS incidents, including 69 mutual aid responses to other jurisdictions. The department accomplishes its EMS mission by staffing paid personnel 24 hours per day and is supplemented by volunteers. YFD maintains one person on duty at all times responding in a first responder unit with the ambulance staffed by volunteers based on availability.

**Summary**

The following table summarizes the information contained in the previous paragraphs in regard to EMS resources available in and around GHFD.

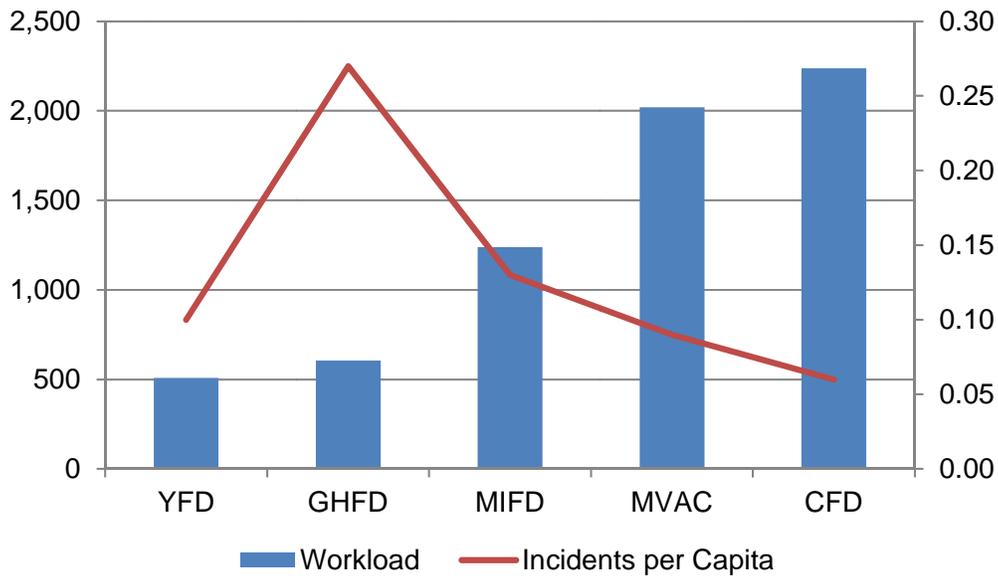
**Figure 47: Comparison of Ambulance Providers<sup>9</sup>**

District	Stations	Area	Population	EMS Incidents 2009	Incidents per Capita	FT Personnel	On Duty Personnel
GHFD	1	1.7	2,201	605	0.27	3	1
CFD	3	13.8	34,923	2,238	0.06	8	3
MVAC	2	10.5	21,985	2,019	0.09	4	1
MIFD	2	8.3	9,702	1,238	0.13	6	2
YFD	1	14.1	5,025	509	0.10	1	1

The 2009 workload for each provider is presented graphically in the following figure.

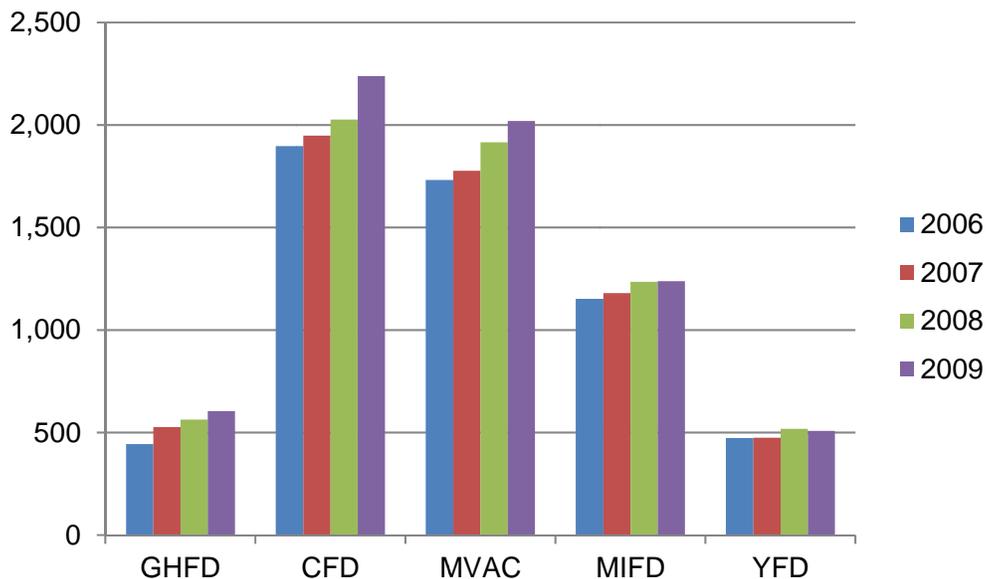
<sup>9</sup> Population and area based on U.S. Census Bureau data from the most appropriate ‘census designated place’ that does not necessarily correspond to the actual fire/ambulance district boundaries.

Figure 48: Workload and Incidents per Capita



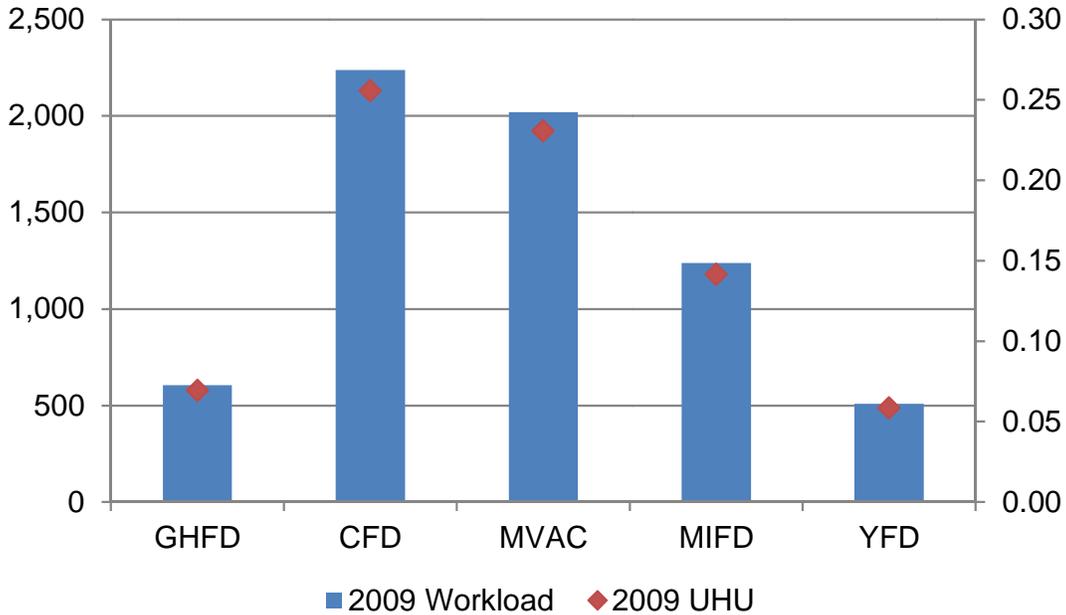
The per capita usage rate in Gordon Heights is more than double that of the next highest rate. This may be in part due to the several county-owned and operated group homes in the District, a high ratio of senior citizens, or various other socioeconomic factors that tend to correspond to higher emergency services usage rates. In order to gain a complete understanding of how the workload has evolved over the past several years, ESCI evaluated the historical workload of each of the ambulance providers noted in Figure 48.

Figure 49: Historical EMS Workload Comparison



It is evident from the preceding figure above that each provider of EMS within the study region has seen a steady increase in overall workload over the past four years. Workload estimates for 2010 appear to continue this trend. The following figure represents the overall EMS workload from calendar year 2009 as well as illustrates the unit hour utilization (UHU) rate of each EMS provider.

Figure 50: Workload and Utilization



Unit hour utilization is a representation of how busy any particular unit is throughout the year. In most circumstances, UHU is calculated by determining the total amount of time that particular units are busy on calls and dividing that total by the number of available unit hours; in most 24 hour systems, this number is 8,760, which represents the total number of hours available in a year. Data obtained from SCFRES, however, did not include actual unit clear times so a one hour per incident factor was used to calculate an estimate of UHU.

The value of a UHU calculation is highly dependent upon the type of organization delivering EMS to the community. Many fire-based systems use a UHU of 0.3 as the threshold to approximate the maximum allowable commit time while private EMS providers tend to use UHUs as high as 0.5. As UHU increases, so does the utilization of any given unit. In other words, a UHU of 1.0 indicates the unit would be busy 100 percent of its available time. As identified previously, UHU of the various organizations ranges from 0.06 in Yaphank to 0.26 in

Coram. GHFD's UHU is calculated to be 0.07, indicating seven percent utilization, well below the fire-based threshold.

In an attempt to determine how to best deliver service to the Gordon Heights community through an alternative deployment model, the feasibility of merging the current GHFD EMS function into these other agencies was evaluated. The following paragraphs evaluate the feasibility of one of the surrounding providers assuming the responsibility of providing EMS to the Gordon Heights community. Each scenario assumes that the current GHFD fire station would no longer be in operation.

### **Coram FD**

CFD has the highest overall workload and subsequent utilization rate of the agencies surrounding Gordon Heights. With a workload of over 2,200 incidents in 2009 (a sharp increase over its 2008 workload) and a utilization of 0.26, it is unlikely that CFD could absorb the additional workload within the Gordon Heights community without adding personnel and resources. In addition, based on the distribution of incidents within GHFD, the majority of EMS workload is occurring in the south-central portion of the District. Although CFD could respond to incidents in the northern portion of the District, response times to a majority of incidents would be extended. It should also be noted here that CFD has formally stated that the department does not believe it could absorb the additional workload with GHFD nor does it desire to see the current services eliminated.

### **Medford Volunteer Ambulance**

MVAC experienced the second highest workload of the surrounding agencies during 2009, along with the second highest utilization rate. Similar to CFD, MVAC has seen a steady increase in service demand over the past four years with an increase of over 100 incidents between 2008 and 2009. Based on the deployment of MVAC resources combined with an already relatively high UHU, it is unlikely that the agency could absorb the additional workload within GHFD without adding resources.

Based on Article 12-A. § 209-a. 1, an ambulance district is considered to be a type of "improvement district" and, therefore, the Town has the authority to establish or expand the existing district after following procedural guidelines outlined in Article 12-A. § 209-e of the Laws of New York. Understanding that MVAC was formed based on the premise that the district

would follow the established boundaries of the Medford Fire Department, this scenario would involve the Town of Brookhaven either negotiating the expansion of the ambulance district to include Gordon Heights or moving to expand the District involuntarily in the best interest of the community as a whole.

Information obtained from the U.S. Department of Health & Human Services, Centers for Medicare & Medicaid Services indicate that 2010 ambulance fee schedule reimbursement rates for New York are flat at \$209.65 with a base mileage rate of \$6.74 per loaded mile.<sup>10</sup> If the base reimbursement rate were to be applied to the 501 transports that were completed during 2009, gross potential revenue is estimated to be \$105,034.<sup>11</sup> Considering that the average collection rate nationally is estimated to be approximately 55 percent, applying this figure to the gross potential revenue calculates to \$68,272 in potential net revenue. Although this potential net revenue would not nearly offset the costs associated with operations of EMS within Gordon Heights, the collection of at least some revenue could be used to offset the overall tax burden facing the community currently.

### **Middle Island FD**

MIFD experienced a moderate workload and corresponding UHU during 2009 and saw virtually no increase in EMS service demand over 2008. Based on facility deployment, MIFD is best located to absorb the current workload within GHFD, particularly in the northern half of the District. A large portion of the northern District is currently served by MIFD due to previous property deed restrictions. Incidents in the southern half of the District, however, would in all likelihood see an increase in response time if units were responding from the MIFD headquarters station. As with CFD and MVAC, MIFD has stated formally that it does not believe it would be able to absorb the additional workload from within the GHFD nor does it wish to see the current services eliminated from the area.

### **Yaphank FD**

YFD is located to the extreme southeast of GHFD. The department has historically experienced a lower EMS workload than the surrounding providers with only 509 incidents in 2009 with a corresponding UHU of 0.06 (the lowest in the region). YFD saw virtually no change in overall EMS service demand over 2008 and has remained relatively stable over the last four years.

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<sup>10</sup> [https://www.cms.gov/AmbulanceFeeSchedule/02\\_afspuf.asp](https://www.cms.gov/AmbulanceFeeSchedule/02_afspuf.asp). Accessed October 18, 2010.

<sup>11</sup> Gross potential revenue does not include mileage or other charges that could increase the total gross revenue.

YFD could potentially reach a small portion of EMS incidents in the extreme southern portion of the District from its current station location. Although YFD officials stated during interviews that they could absorb the current workload within GHFD without difficulty, it is apparent from travel models and previous mutual aid relationships that this alternative would not be in the best interest of the community as a whole.

Considering that each of the foregoing scenarios assumed that the existing GHFD station would not be used in the deployment models, it is conceivable that if another provider assumed responsibility over EMS within Gordon Heights, the fire station could remain active and provide the new provider with a base of operations within Gordon Heights.

## **Fiscal Impacts**

Many options exist for adjusting the delivery model for fire and EMS services to the Gordon Heights Fire District. One option is to review and significantly reduce the current operating costs of the District. Reducing budget costs are never easy and will impact the lives of the people affected by the changes. However, the residents of Gordon Heights Fire District have expressed strong concerns regarding high operating costs. These concerns will require a fresh look at the budget with recommendations for changes as necessary.

In proposing budget adjustments, many factors were considered from comparing like costs with neighboring departments to reviewing line items costs for reasonableness, to simply recommending a reduction in total cost due to financial consideration for the residents of the District. ESCI was not able to do an in-depth analysis of all cost categories. To insure that the District was not penalized by excessive reductions, a new cost fund was established for unbudgeted items. The new fund was labeled “Contingencies” and is shown in the fund transfer section of the budget. As more experience/history of the model budget is achieved, this fund should be eliminated in future years.

Developing future financial models requires looking into two variables: 1) the projected change in taxable assessed value (TAV) and 2) the change in other non-tax related income and District operating expenses.

Taxable assessed value will be projected to future years based on 2006 – 2010 actual assessed value and growth trends derived from these values.

The basis for developing cost will be to project costs based on the historic Consumer Price Index Urban (CPI-U). It should be noted that this rate is used for analytical purposes and that the actual CPI-U for a given year could be higher or lower.

**Annual inflation Rate CPI-U**

Historical information was used to develop an inflation index for the years 2011 – 2020.<sup>12</sup> The information is displayed in both table and graphical format below. The historical ten-year CPI-U is 2.650 percent per year.

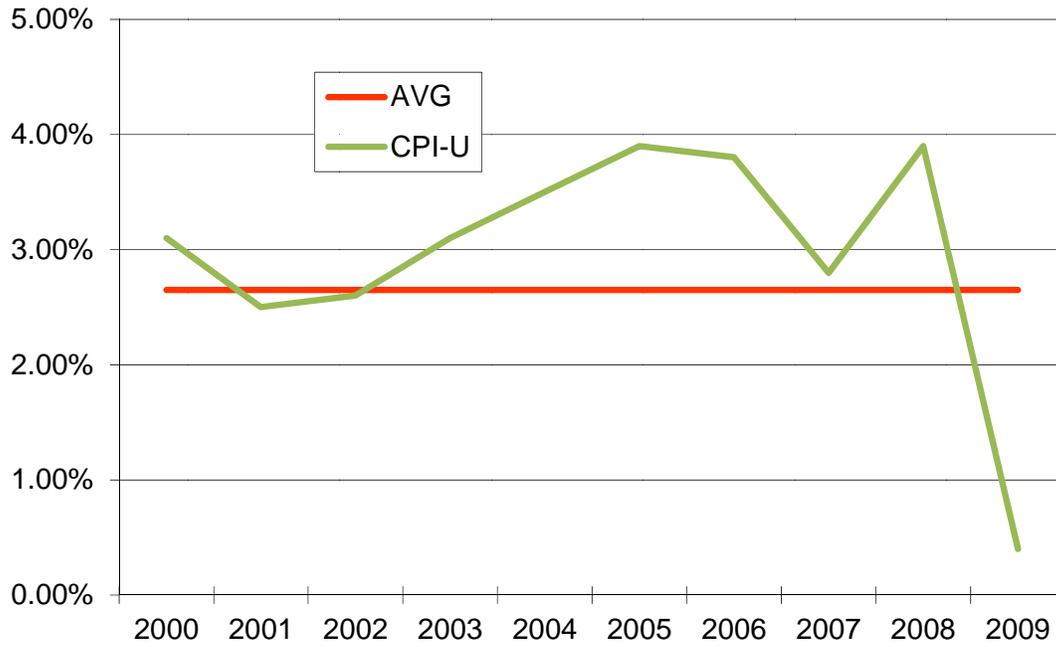
**Figure 51: CPI-U, 2000 - 2009**

<b>Year</b>	<b>AVG</b>
<b>2000</b>	2.6500%
<b>2001</b>	2.6500%
<b>2002</b>	2.6500%
<b>2003</b>	2.6500%
<b>2004</b>	2.6500%
<b>2005</b>	2.6500%
<b>2006</b>	2.6500%
<b>2007</b>	2.6500%
<b>2008</b>	2.6500%
<b>2009</b>	2.6500%

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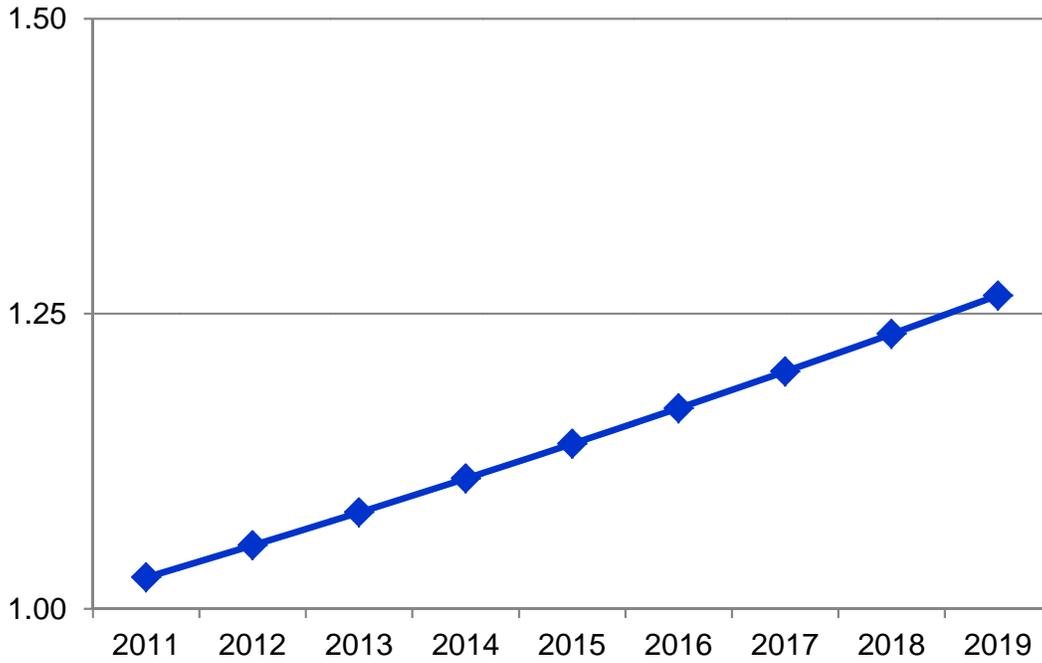
<sup>12</sup> Reference data is from the Bureau of Labor Statistic website <http://www.bls.gov/cpi/>. The series ID is for New York, Northern New Jersey and Long Island (CUURA101SA0).

Figure 52: Graphical Representation of CPI-U, 2000 - 2009



The CPI-U average increase will be applied to other revenue and expense categories of the 2010 consolidated budget to develop forecasted impact on the combined organization future financial stability.

Figure 53: Graph Representation of Forecast CPI-U, 2010 - 2020



Utilizing the TAV trends and historic CPI-U, various options will be reviewed and projections made as to the projected future costs to the tax payers.

**GHFD Model Budget**

The follow table depicts the model budget for GHFD, including the major adjustment defined above.

Town of Brookhaven, NY – Fire District Dissolution Study

Figure 54: GHFD Model Budget

Expense Category	Budget 2010	Model Budget	Admin Costs Removed	Station Closure	Comments
<b>Personnel Services</b>					
Salary - Secretary	39,972				Eliminate position
Salary - Treasurer	49,428	49,428			Treasurer to assume dual roll of Secretary and Treasurer
Salary - Maintenance					
Salary - EMT Staff	193,684	193,684	193,684		No change to existing staff
Salary - Mechanic	16,000				Contract maintenance
Salary - Department Secretary					
Salary - Custodial	17,996				On duty personnel assigned to clean facility. Volunteer workdays once per month
Salary - Attorney					
Salary - Clerical	13,000				Eliminate position
Salary ACS Coordinator	41,769	41,769	41,769		No change to existing staff
Child Support					Restated into base salary and wage for budget
IRS					
Metro Commuter Mobility Tax					
NYS Retire - Employee					Restated into base salary and wage for budget
NYS Income Tax					Restated into base salary and wage for budget
Federal Income Tax					Restated into base salary and wage for budget
FICA Employee					Restated into base salary and wage for budget
Medicare Employee					Restated into base salary and wage for budget
<b>Total Personnel Services</b>	<b>371,849</b>	<b>284,881</b>	<b>235,453</b>		
<b>Business Operations</b>					
Department Physicals	8,000	4,200	4,200		30 interior certified firefighters @ \$140
Physical Training	2,500				Reduce due to fiscal constraints
Training/Education District	13,000	6,500	6,500		Reduce due to fiscal constraints
Inspection Dinner	22,500	11,000	11,000		Installation dinner for new board of directors and new officers. Estimate cost at: facility rent 4, band 2, food \$50 per person 3, misc 3

**Town of Brookhaven, NY – Fire District Dissolution Study**

<b>Expense Category</b>	<b>Budget 2010</b>	<b>Model Budget</b>	<b>Admin Costs Removed</b>	<b>Station Closure</b>	<b>Comments</b>
Office Equipment Lease	8,500	3,200	3,200	3,200	Minimum non-cancelable lease \$3,168. Cancel all other leases.
Dues/Subscriptions	3,000	1,250			Review subscriptions and reduce due to fiscal constraints
Publications/Elections	3,000	500			Same as Yaphank
District Supplies	13,000	4,500			Same as Yaphank
Signal 8 (meals & Refreshments)	3,000				Eliminate cost for
Misc.	5,000				Cost covered in contingency below
Conventions/Associations Hosting	2,000	2,000			No change
Training/Education Fire/Rescue	16,000	8,000	8,000		Reduce 50% due to fiscal constraints
Equipment Maintenance	15,000	7,500			Accounting software \$2k, IT \$3K, Misc \$2.5K
<b>Total Business Operations</b>	<b>114,500</b>	<b>48,650</b>	<b>32,900</b>	<b>3,200</b>	
<b>Business Administration</b>					
Treasurer's Bond					
Financial Audit	17,000	12,000			Same as Yaphank
Legal Fees	25,000				Legal fees to fund opposition to modify existing structure. Not needed with reduce budget.
LOSAP Audit					
Hydrant Rental	18,500	12,000	12,000	12,000	2009 at 1,000, budget projects moving to 500 ft. Return to 2009 rental rates
Transfer to Reserves					
Service Awards	75,000	56,250	56,250		LOSAP payment. Reduce funding level by 25% for reduction of fire police volunteers.
Grant Expenses					
Community Enhancement Grant					
<b>Total Business Administration</b>	<b>135,500</b>	<b>80,250</b>	<b>68,250</b>	<b>12,000</b>	
<b>Bond and Lease Payments</b>					
Principal on Bond	25,000				Payment made with sale of excess equipment
Interest on Bonds	3,450				Payment made with sale of excess equipment
Capital Lease Principal	56,833				Last payment August 2010
Capital Lease Interest	2,785				Last payment August 2010
<b>Total Bond and Lease Payments</b>	<b>88,068</b>				

**Town of Brookhaven, NY – Fire District Dissolution Study**

Expense Category	Budget 2010	Model Budget	Admin Costs Removed	Station Closure	Comments
<b>Vehicles</b>					
Vehicle Repair/Maintenance	45,000	7,651	7,651		Average 2006 - 2009 less 30% for fewer vehicles
Vehicle Fuel	15,000	9,750	9,750		less 35% for fewer vehicles
Propane					
Vehicle Inspection					
5-9-1 Ladder Truck					Vehicle recommended for disposal
5-9-2 Antique					Vehicle recommended for disposal
5-9-3 Engine					Vehicle under warranty
5-9-4 Engine					Vehicle under warranty
5-9-5 Fire Police Van					Vehicle recommended for disposal
5-9-6 GMC Fire Police					Vehicle recommended for disposal
5-9-22 District car					Vehicle recommended for disposal
5-9-8 1986 GMC Heavy Rescue					Vehicle recommended for disposal
5-9 9 Jeep					Vehicle recommended for disposal
5-9-10 None					Vehicle recommended for disposal
5-9-11 ALS First responder Vehicle					Vehicle recommended for disposal
5-9-12 Brush Truck					Vehicle recommended for disposal
5-9-13 Mack Engine					Vehicle recommended for disposal
5-9-7 Stufen Pumper 2001					Vehicle recommended for disposal
5- 9-15 Tahoe ALS First responder					Vehicle recommended for disposal
5-9-16 Ambulance		3,500	3,500		Adjusted value from general repair line above
5-9-17 Ambulance		1,000	1,000		Adjusted value from general repair line above
5-9-18 Mechanic Truck					Vehicle recommended for disposal
5- 9 19 Bus					Vehicle recommended for disposal
5-9-20 Chief 5-9-30					
5-9-21 Chief 5-9-32					Vehicle recommended for disposal
5-9-12B Brush Truck					Vehicle recommended for disposal
5-9-14 Ford Expedition ALS		700	700		Adjusted value from general repair line above
5-9-23 District Vehicle					Vehicle recommended for disposal
<b>Total Vehicles</b>	<b>60,000</b>	<b>22,601</b>	<b>22,601</b>		

**Building and Grounds**

**Town of Brookhaven, NY – Fire District Dissolution Study**

<b>Expense Category</b>	<b>Budget 2010</b>	<b>Model Budget</b>	<b>Admin Costs Removed</b>	<b>Station Closure</b>	<b>Comments</b>
L.I.P.A	27,000	27,000	27,000		No change
Building Supplies	6,000	6,000	6,000		No change
Grounds Keeping	5,500	2,500	2,500		Reduce due to fiscal constraints
Refuse Pickup	4,500	4,500	4,500		No change
Boiler & A/C Repair	4,500	4,500	4,500		No change
Kitchen maint.	2,100	1,500	1,500		Reduce due to fiscal constraints
Exterminator	600	600	600		No change
General Bldg. Maintenance	28,000	28,000	28,000		No change
Misc. Building Expenses					
Security Maintenance	1,000	750	750		Reduce due to fiscal constraints
Building Heating Fuel ( Hawkins)	25,000	15,151	15,151		Previous years actual plus 25%
Building Heating Fuel ( Rose)	5,500	2,354	2,354		Previous years actual plus 25%
Office Equipment	4,000	2,500	2,500		Reduce due to fiscal constraints
Propane	1,500	793	793		Previous years actual plus 25%
Security Equipment	5,000				No additional improvements
Building Equipment	3,000	1,500	1,500		Reduce due to fiscal constraints
<b>Total Building and Grounds</b>	<b>123,200</b>	<b>97,647</b>	<b>97,647</b>		
<b>Communications</b>					
Telephones	24,000	20,000	20,000		Drop to 5 cell phone plus land lines/land line only
Siren Repair	2,000				Reduce due to fiscal constraints
Radio/Pager Purchase	13,000	10,000	10,000		four handhelds per year
Radio/Pager Repair	3,500	3,500	3,500		No change
Cable	1,000	1,000	1,000		No change
Siren Purchase					
<b>Total Communications</b>	<b>43,500</b>	<b>34,500</b>	<b>34,500</b>		
<b>Fire and Rescue</b>					
Firematic Supplies	13,000	5,000	5,000	5,000	Reduction of vehicles will reduce demand
Rescue Supplies	20,000	14,800	14,800	14,800	Ambulance only
Cylinder Refills	6,000	4,000	4,000	4,000	Previous year level
Uniforms	10,000	4,900	4,900		35 firefighters at \$140
Uniform Alterations	1,000	500	500		Reduce due to fiscal constraints
Signal 8 (meals & Refreshments)	4,500	1,800	1,800		Reduce due to fiscal constraints

**Town of Brookhaven, NY – Fire District Dissolution Study**

<b>Expense Category</b>	<b>Budget 2010</b>	<b>Model Budget</b>	<b>Admin Costs Removed</b>	<b>Station Closure</b>	<b>Comments</b>
Turnout Gear	6,000	6,000	6,000		6 sets per year @ \$1,000ea 20% inventory replacement per year
Firematic Equipment	21,000	10,000	10,000	10,000	Reduction of vehicles will reduce demand
Rescue Equipment	18,000	5,000	5,000	5,000	Ambulance only
Fire Prevention	5,000	5,000			No change
Firematic/Rescue Equipment Repair	782	782	782	782	No change
<b>Total Fire &amp; Rescue</b>	<b>105,282</b>	<b>57,782</b>	<b>52,782</b>	<b>39,582</b>	
<b>Social Security</b>					
FICA Employer	23,000	17,663	14,598		FICA @ 6.2% of wages
Medicare Employer	5,500	4,131	3,414		Medicare @ 1.45% of wages
<b>Total Social Security</b>	<b>28,500</b>	<b>21,793</b>	<b>18,012</b>		
<b>Insurance Exempt</b>					
Worker Compensation	16,000	8,984	6,738		2009 level minus percent reduction based on wages and volunteer hours for fire police
Medical/Accident Ins	6,000	5,276	3,957		2009 level minus percent reduction based on wages and volunteer hours for fire police
Unemployment Ins.	5,000	1,500	1,125		pervious year + percent reduction based on wages
Auto Insurance	38,000	23,693	23,693		35% less vehicles of 2009 value
VFBL	29,500	22,125	16,594		Life insurance payment. Reduce funding level by 25% for reduction of fire police volunteers.
NYS Retirement	35,000	29,267	21,950		2009 level minus percent reduction based on wages
Medical Ins. Employee	25,000	25,000	18,750		1 office 3 EMTs
Umbrella Policy	10,500	10,500	10,500		No change
<b>Total Insurance</b>	<b>165,000</b>	<b>126,344</b>	<b>103,306</b>		
<b>Fund Transfers</b>					
General to Equipment Reserve					
Contingency Fund		40,000	40,000		Establish contingency fund
General to T&A					
Emergency Vehicle Repair Fund					
General to Truck					
General to Reserve Fund	180,000	41,250	41,250		See vehicle replacement schedule

**Town of Brookhaven, NY – Fire District Dissolution Study**

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<b>Expense Category</b>	<b>Budget 2010</b>	<b>Model Budget</b>	<b>Admin Costs Removed</b>	<b>Station Closure</b>	<b>Comments</b>
Total Fund Transfers	180,000	81,250	81,250		
Total Expenditures	1,415,399	855,699	746,701	54,782	
Percent Reduction		39.544%	47.244%	96.120%	
Tax rate	60.83	37.25	32.50	2.38	

The preceding model budget depicts a 39.54 percent reduction in total budget cost and tax rate if the recommended modifications are made. Likewise, if another district assumed control and operation of the GHFD area and the current station remained open and operational, ESCI has calculated that the overall budget would see a reduction of 47.25 percent in total budget with a corresponding tax rate of 32.50. Further, if the current GHFD station were to be closed and services provided from a neighboring jurisdiction, a 96.12 percent reduction in total budget would be realized (due to some necessary contractual issues and transfer of costs to the new department providing service to the area) and a corresponding tax rate of \$2.38.

**Allocation of Model Budget between Fire and EMS**

The table below allocates the model budget into costs by operating functions of fire and EMS assuming the current GHFD station remains in operation and budget modifications are made as recommended.

**Town of Brookhaven, NY – Fire District Dissolution Study**

**Figure 55: GHFD Allocated Model Budget**

<b>Expense Category</b>	<b>Fire</b>	<b>EMS</b>	<b>Model Budget</b>	<b>Allocation Methodology</b>
<b>Personnel Services</b>				
Salary - Treasurer	24,714	24,714	49,428	50/50 split
Salary - EMT Staff	0	193,684	193,684	
Salary ACS Coordinator	0	41,769	41,769	
<b>Total Personnel Svces</b>	<b>24,714</b>	<b>260,167</b>	<b>284,881</b>	
<b>Business Operations</b>				
Department Physicals	3,526	674	4,200	Percent of manpower
Training/Education District	5,457	1,043	6,500	Percent of manpower
Inspection Dinner	9,236	1,764	11,000	Percent of manpower
Office Equipment Lease	591	2,609	3,200	Alloc. based on call volume
Dues/Subscriptions	1,050	201	1,250	Percent of manpower
Publications/Elections	92	408	500	Alloc. based on call volume
District Supplies	831	3,670	4,500	Alloc. based on call volume
Conventions/Associations Hosting	1,679	321	2,000	Percent of manpower
Training/Education Fire/Rescue	6,717	1,283	8,000	Percent of manpower
Equipment Maintenance	1,385	6,116	7,500	Alloc. based on call volume
<b>Total Business Operations</b>	<b>30,563</b>	<b>18,088</b>	<b>48,650</b>	
<b>Business Administration</b>				
Financial Audit	6,000	6,000	12,000	50/50 Split
Hydrant Rental	12,000	0	12,000	
Service Awards	42,188	14,063	56,250	25% to EMS
<b>Total Business Administration</b>	<b>60,188</b>	<b>20,063</b>	<b>80,250</b>	
<b>Vehicles</b>				
Vehicle Repair/Maint	1,412	6,239	7,651	Alloc. based on call volume
Vehicle Fuel	1,800	7,950	9,750	Alloc. based on call volume
5-9-16 Ambulance	0	3,500	3,500	
5-9-17 Ambulance	0	1,000	1,000	
5-9-14 Ford Expedition ALS	0	700	700	Alloc. based on call volume
<b>Total Vehicle</b>	<b>3,212</b>	<b>19,389</b>	<b>22,601</b>	
<b>Building and Grounds</b>				
L.I.P.A	14,700	12,300	27,000	Alloc. based on bay doors plus 30% to EMS for full-time workers
Building Supplies	3,267	2,733	6,000	Alloc. based on bay doors plus 30% to EMS for full-time workers

**Town of Brookhaven, NY – Fire District Dissolution Study**

<b>Expense Category</b>	<b>Fire</b>	<b>EMS</b>	<b>Model Budget</b>	<b>Allocation Methodology</b>
Grounds Keeping	1,361	1,139	2,500	Alloc. based on bay doors plus 30% to EMS for full-time workers
Refuse Pickup	2,450	2,050	4,500	Alloc. based on bay doors plus 30% to EMS for full-time workers
Boiler & A/C Repair	2,450	2,050	4,500	Alloc. based on bay doors plus 30% to EMS for full-time workers
Kitchen maint.	817	683	1,500	Alloc. based on bay doors plus 30% to EMS for full-time workers
Exterminator	327	273	600	Alloc. based on bay doors plus 30% to EMS for full-time workers
General Bldg. maint.	15,245	12,755	28,000	Alloc. based on bay doors plus 30% to EMS for full-time workers
Security Maintenance	408	342	750	Alloc. based on bay doors plus 30% to EMS for full-time workers
Building Heating Fuel ( Hawkins)	8,249	6,902	15,151	Alloc. based on bay doors plus 30% to EMS for full-time workers
Building Heating Fuel ( Rose)	434	1,919	2,354	Alloc. based on call volume
Office Equipment	1,361	1,139	2,500	Alloc. based on bay doors plus 30% to EMS for full-time workers
Propane	432	361	793	Alloc. based on bay doors plus 30% to EMS for full-time workers
Building Equipment	817	683	1,500	Alloc. based on bay doors plus 30% to EMS for full-time workers
<b>Total Building and Grounds</b>	<b>52,318</b>	<b>45,329</b>	<b>97,647</b>	
<b>Communications</b>				
Telephones	3,692	16,308	20,000	Alloc. based on call volume
Radio/Pager Purchase	1,846	8,154	10,000	Alloc. based on call volume
Radio/Pager Repair	646	2,854	3,500	Alloc. based on call volume
Cable	840	160	1,000	Alloc. based on total headcount
<b>Total Communications</b>	<b>7,024</b>	<b>27,476</b>	<b>34,500</b>	
<b>Fire and Rescue</b>				
Firematic Supplies	5,000	0	5,000	
Rescue Supplies	0	14,800	14,800	
Cylinder Refills	3,358	642	4,000	Alloc. based on headcount
Uniforms	4,114	786	4,900	Alloc. based on headcount
Uniform Alterations	420	80	500	Alloc. based on headcount
Signal 8 (meals & Refreshments)	1,511	289	1,800	Alloc. based on headcount
Turnout Gear	5,038	962	6,000	Alloc. based on headcount
Firematic Equipment	10,000	0	10,000	
Rescue Equipment	0	5,000	5,000	
Fire Prevention	5,000	0	5,000	
Firematic/Rescue Equipment Repair	144	638	782	Alloc. based on call volume
<b>Total Fire &amp; Rescue</b>	<b>34,585</b>	<b>23,197</b>	<b>57,782</b>	
<b>Social Security</b>			<b>0</b>	

**Town of Brookhaven, NY – Fire District Dissolution Study**

<b>Expense Category</b>	<b>Fire</b>	<b>EMS</b>	<b>Model Budget</b>	<b>Allocation Methodology</b>
FICA Employer	2,089	15,573	17,663	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
Medicare Employer	489	3,642	4,131	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
<b>Total Social Security</b>	<b>2,578</b>	<b>19,215</b>	<b>21,793</b>	
<b>Insurance Exempt</b>				
Worker Compensation	862	6,428	8,984	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
Medical/Accident Ins	506	3,775	5,276	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
Unemployment Ins.	177	1,323	1,500	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
Auto Insurance	8,627	15,067	23,693	Alloc based on vehicles
VFBL	2,617	19,508	22,125	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
NYS Retirement	2,810	20,940	29,267	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
Medical Ins. Employee	2,958	22,043	25,000	Alloc. based on total wages from above fire 11.83%, EMS 88.17%
Umbrella Policy	1,938	8,562	10,500	Alloc. based on call volume
<b>Total Insurance</b>	<b>20,496</b>	<b>97,644</b>	<b>126,344</b>	
<b>Fund Transfers</b>				
Contingency Fund	7,384	32,616	40,000	Alloc. based on call volume
General to Reserve Fund	20,875	20,375	41,250	Alloc. based on vehicle replacement plan
<b>Total Fund Transfers</b>	<b>28,259</b>	<b>52,991</b>	<b>81,250</b>	
<b>Total Expenditures</b>	<b>263,937</b>	<b>583,559</b>	<b>855,869</b>	
 Tax rate	 11.488	 25.401	 37.25	

The allocation of expenses depicts that 31 percent of costs are fire related, with the remaining 69 percent supporting ambulance operations.

## Analysis and Impacts of Dissolution and Alternatives

The analysis and impacts of dissolution alternatives presented in the paragraphs that follow are the result of extensive analysis of NYS law, operational guidelines and practices of GHFD as well as those departments surrounding the District, available financial data regarding budgets, funding, and taxes, as well as numerous interview with community stakeholders. Each option presented below includes the following:

- Discussion
  - This section provides a general description of the strategy by introducing the primary concepts and areas of focus.
- Policy Actions
  - The section on policy actions provides decision-makers with guidance in navigating the particular strategy along with identification of the authority having jurisdiction to alter the current service delivery model.
- Operational Impact
  - Within these paragraphs, information is focused on personnel and capital assets and how the option may impact those resources.
- Fiscal Impact
  - A financial analysis was conducted for each particular strategy and the results of that analysis are included here. Components of the analysis include recommended apparatus replacement schedules along with retained vehicle recommendations and an analysis of current versus recommended reserve funds.
- Social Considerations
  - This section provides a brief discussion of the potential social impacts of the particular strategy. Throughout this process ESCI met with or otherwise interviewed community stakeholders including elected and appointed officials from GHFD as well as each surrounding emergency services agency, local community organizations on both sides of the issue, Town officials, and other interested parties. Understanding the highly emotional nature of this type of endeavor, ESCI made every effort to provide information within each strategy regarding the potential social implications while focusing on service delivery as the overall driving objective.
- Feasibility/Likelihood of Success
  - The feasibility/likelihood of success is highly variable for any of the following options. Political drive, community support, organizational desires and willingness to cooperate will all play a vital role in the ultimate success of any strategy. This section provides some issues that will likely surface for the particular strategy.
- Potential Impediments
  - With any potential organizational change there are potential impediments to that change. This section identifies the most likely impediments that policy-makers will face in implementing the particular strategy.

## **Option A – Status Quo**

### ***Discussion***

As with any feasibility options analysis, continuing to provide service in the current manner is always a viable option, albeit less than ideal in many cases. The analysis of GHFD is no different. The impetus for this project was public dissatisfaction with the level of taxation levied by GHFD, not the general service provided. It is the opinion of ESCI that if the District alters its methods of administration, oversight, and operational policies, the current tax rate can be substantially reduced, thereby relieving the burden on the community. Methods to make these alterations through the reduction of equipment, career staff, and unnecessary expenditures were addressed in the previous section.

### ***Policy Actions***

In order for GHFD to survive as an independent entity supported by the community through volunteerism and funding, the elected officials must be determined to change the department's way of thinking. Change is difficult, particularly in emergency services organizations. This is even truer within an organization with a strong history and proud members. There is no doubt that the elected officials, members, and employees of GHFD are well aware of departmental history and serve with pride. The fact remains, however, that the socio-economic factors of the District served are not suitable for the level of service the department currently desires to provide. This is not to say that the Gordon Heights community deserves a lower level of service than any of the surrounding communities, but the service must be provided with more attention to cost effectiveness and efficiency in mind.

Authority to continue the department as status quo lies with the Town of Brookhaven. Likewise, altering the governance of the District is also within the purview of the Town. Outside this authority, however, the elected officials of GHFD must take actions that have substantial and long-lasting effects on the sustainability of the organization. The following policy actions are recommended under this strategy:

- The Town of Brookhaven should hold a public meeting on the issue GHFD dissolution
- If dissolution is not recommended or is tabled for later action, the Commissioners of GHFD should implement strategies as outlined in this report to reduce the tax rate by substantially reducing expenditures

***Operational Impact***

Although status quo indicates operations ‘as is’, the District should evaluate the cost effectiveness of continuing certain services. As noted previously, ESCI is recommending certain changes to the operations of the department, particularly in the area of paid personnel and apparatus.

**Personnel**

The District currently maintains five paid personnel: District secretary, District Treasurer, a custodian, a mechanic, and a clerical person. Paid positions listed here do not include career EMS personnel that are not recommended for change as part of this strategy. ESCI is recommending that all paid administrative personnel, with the exception of a part-time treasurer be eliminated. With the reduction in apparatus discussed below, the need for maintenance staff should be negated as many of the retained apparatus would be under warranty and custodial duties can be handled by on-duty personnel or assigned station duty of volunteers.

The District currently employs an ALS coordinator to oversee the delivery of EMS to the community; this position should be tasked with more of the administrative responsibilities of day-to-day operations rather than relying on the District Secretary and other clerical staff for these functions.

Another personnel function within the organization that ESCI is recommending for elimination is the Fire Police program. Although determined to be beneficial to the organization, this service is neither critical nor mandated. In fact, Fire Police are authorized in only a very small number of states, primarily in the northeast. The cost to maintain this program is not found in the actual personnel but more in the way of retirement benefits and equipment.

The table below depicts the current budgeted manpower for GHFD<sup>13</sup>.

Figure 56: 2010 Budgeted Manpower Summary

Staffing	Administration	Firefighting	Rescue Squad	Fire Police	Total
<b>Paid Personnel</b>					
Secretary	1	-	-	-	1
District Treasurer	1	-	-	-	1
ALS Coordinator	-	-	1	-	1
EMTs	-	-	3	-	3
Custodian	1	-	-	-	1
Mechanic	1	-	-	-	1
Clerical Support	1	-	-	-	1
<b>Total Paid Staff</b>	<b>5</b>	<b>-</b>	<b>4</b>	<b>-</b>	<b>9</b>
<b>Volunteer Personnel</b>					
Chief	1	-	-	-	1
Captain	-	2	1	1	4
Lieutenant	-	3	2	2	7
Firefighters	-	18	-	-	18
Rescue Squad	-	-	8	-	8
Fire Police	-	-	-	12	9
<b>Total Volunteer Staff</b>	<b>1</b>	<b>23</b>	<b>11</b>	<b>12</b>	<b>47</b>
Percent of Volunteer Staff	2.13%	48.94%	23.40%	25.53%	100.00%
<b>Total Staff Paid &amp; Volunteer</b>	<b>6</b>	<b>23</b>	<b>15</b>	<b>12</b>	<b>56</b>

The total cost of manpower is high based on the number of calls and the size of the department. In reviewing budget information supplied by neighboring departments, ESCI recommends that GHFD reduce paid manpower and rely on volunteers/remaining paid staff to perform some functions currently be completed by positions which are recommended for terminations. The following reductions are incorporated in the model budget:

- Consolidation of the District Secretary, District Treasurer and clerical support into one full-time position.
- Eliminate custodial position and meet cleaning requirement by assigning task to on-duty personal and creating a monthly workday to have volunteers clean station.
- Outsource mechanic position to local repair shops.
- Eliminate the function of fire police.

With the reductions noted in the preceding list implemented, Figure 57 illustrates a new manpower chart for GHFD.

<sup>13</sup> Manpower data provided by client in tab 10 of workbook given to ESCI.

Figure 57: Model Budget Manpower Summary

Staffing	Administration	Firefighting	Rescue Squad	Fire Police	Total
<b>Paid Personnel</b>					
District Treasurer	1	-	-	-	1
ALS Coordinator	-	-	1	-	1
EMTs	-	-	3	-	3
<b>Total Paid Staff</b>	<b>1</b>	<b>-</b>	<b>4</b>	<b>-</b>	<b>5</b>
<b>Volunteer Personnel</b>					
Chief	1	-	-	-	1
Captain	-	2	1	-	3
Lieutenant	-	3	2	-	5
Firefighters	-	18	-	-	18
Rescue Squad	-	-	8	-	8
Fire Police	-	-	-	-	-
<b>Total Volunteer Staff</b>	<b>1</b>	<b>23</b>	<b>11</b>	<b>-</b>	<b>35</b>
Percent of Volunteer Staff	2.86%	65.71%	31.43%	0.00%	100.00%
<b>Total Staff Paid &amp; Volunteer</b>	<b>2</b>	<b>23</b>	<b>15</b>	<b>-</b>	<b>40</b>

The recommended elimination of full-time paid positions and dropping the fire police function generates a reduction in total manpower by 16 positions: 4 paid and 12 volunteer. The impact of this reduction ripples throughout the model budget impacting wages, mandated payroll taxes, benefits, Volunteer Fireman’s Benevolent Fund (VFBL), and LOSAP participation payments.

Apparatus

As presented previously, the District currently maintains a fleet of 19 vehicles. ESCI is recommending that this fleet be reduced to six: Two engines, two ambulances, one ALS response vehicle, and one chief’s vehicle. The remaining vehicles should be moved to surplus and sold.

The following table depicts the current vehicle inventory for GHFD.

Figure 58: GHFD Vehicle Inventory Summary

Vehicle Number	Type	Year	Make/Model	Purchase Price	Net Book Value	Comments
5-9-1	75' Aerial Ladder	1999	E-One	450,000	225,000	
5-9-2	Parade truck	1964	Ford 660	23,750	0	
5-9-3	Pumper	2009	Spartan	228,036	228,036	
5-9-4	Pumper	2008	Spartan	304,548	289,321	
5-9-5	Fire Police	2008	Ford F550	81,500	73,350	
5-9-6	Fire Police	2010	Ford E350	32,837	36,121	
5-9-8	Heavy Rescue	1993	Pierce	165,000	0	
5-9-8 (1)	Heavy Rescue	1985	GM Top Kick	65,000	0	
5-9-12	Brush Truck	1952	GMC	2,000	N/A	Antique
5-9-12B	Brush Truck	1952	GMC	5,000	N/A	Antique
5-9-14	ALS	2005	Ford Expedition	30,210	18,126	
5-9-15	ALS	2001	Chevy Tahoe	30,109	6,022	Reserve vehicle
5-9-16	Ambulance	1999	Ford	107,998	0	
5-9-17	Ambulance	2008	Ford	146,000	131,400	
5-9-18	Pick-up	2002	Ford	22,135	11,805	
5-9-19	School bus	1979	Superior	2,500	0	
5-9-20	Chief Car	2008	Ford Expedition	32,999	29,699	
5-9-22	Asst Chief Car	2005	Ford Expedition	34,210	20,526	
5-9-23	District Car	2009	Dodge Charger	<u>17,252</u>	<u>17,252</u>	
<b>Total</b>				1,781,084	1,086,658	

**Fiscal Impact**

The total cost of retaining the vehicles is excessive from the standpoint of maintenance and insurance and doesn't provide any significant improvement in service to the residents of GHFD. ESCI is recommending the reduction of a significant number of these vehicles. In making the recommendation, ESCI has been able to retain the vehicles that will allow GHFD to provide service at its current level, albeit through a modified delivery system.

The following vehicles are recommended to be sold.

**Figure 59: GHFD Vehicle Disposal Summary**

Vehicle Number	Type	Year	Make/Model	Purchase Price	Net Book Value	Comments
5-9-1	75' Aerial Ladder	1999	E-One	450,000	225,000	
5-9-2	Parade truck	1964	Ford 660	23,750	0	
5-9-5	Fire Police	2008	Ford F550	81,500	73,350	
5-9-6	Fire Police	2010	Ford E350	32,837	36,121	
5-9-8	Heavy Rescue	1993	Pierce	165,000	0	
5-9-8 (1)	Heavy Rescue	1985	GM Top Kick	65,000	0	
5-9-12	Brush Truck	1952	GMC	2,000	N/A	Antique
5-9-12B	Brush Truck	1952	GMC	5,000	N/A	Antique
5-9-15	ALS	2001	Chevy Tahoe	30,109	6,022	Reserve vehicle
5-9-18	Pick-up	2002	Ford	22,135	11,805	
5-9-19	School bus	1979	Superior	2,500	0	
5-9-22	Asst Chief Car	2005	Ford Expedition	34,210	20,526	
5-9-23	District Car	2009	Dodge Charger	<u>17,252</u>	<u>17,252</u>	
<b>Total</b>				931,293	390,076	

The vehicles to be disposed of are the property of GHFD. Proceeds from the disposal should be used to:<sup>14</sup>

- Fully fund the LOSAP liability = \$103,302
- Pay off the balance of the building debt = \$75,000

**Figure 60: GHFD Retained Vehicle Summary**

Vehicle Number	Type	Year	Make/Model	Purchase Price	Net Book Value
5-9-3	Pumper	2009	Spartan	228,036	228,036
5-9-4	Pumper	2008	Spartan	304,548	289,321
5-9-14	ALS	2005	Ford Expedition	30,210	18,126
5-9-16	Ambulance	1999	Ford	107,998	0
5-9-17	Ambulance	2008	Ford	146,000	131,400
5-9-20	Chief Car	2008	Ford Expedition	<u>32,999</u>	<u>29,699</u>
<b>Total</b>				849,791	696,582

In the model budget, provisions are made to establish a capital plan and ratable fund a portion of future replacement costs each year. As shown in Figure 61, the model budget required \$41,250 per year to ensure timely replacement of future apparatus purchases.

<sup>14</sup> Unpaid liabilities are as of 12/31/09 from the Cullen & Danowski audit report dated March 15, 2010.

Town of Brookhaven, NY – Fire District Dissolution Study

Figure 61: GHFD Vehicle Replacement Schedule

Vehicle No.	Purchase Date	Make	Useful Life	Years Left as of 1/1/2009	Replace Cost	Reserve Required @ 12/31/09	Annual Reserve Require	2010	2011	2012	2013	2014
5-9-3	2009	Spartan	20	20	\$400,000	40,000	20,000	20,000	20,000	20,000	20,000	20,000
5-9-4	2008	Spartan	20	19	\$0	-	-	-	-	-	-	-
5-9-14	2005	Ford Expedition	10	6	\$35,000	35,000	3,500	3,500	3,500	3,500	3,500	3,500
5-9-16	1999	Ford	10	0	\$0	-	-	-	-	-	-	-
5-9-17	2008	Ford	10	9	\$160,000	48,000	16,000	16,000	16,000	16,000	16,000	16,000
5-9-20	2008	Ford Expedition	10	9	\$35,000	8,750	1,750	1,750	1,750	1,750	1,750	1,750
<b>Total Annual Funding Requirement - Vehicles</b>						<b>131,750</b>	<b>41,250</b>	<b>41,250</b>	<b>41,250</b>	<b>41,250</b>	<b>41,250</b>	<b>41,250</b>
<b>Capital for Building</b>						<b>50,000</b>		<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>
<b>Emergency Fund</b>						<b>42,000</b>		<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>
<b>Annual Funding Requirement</b>						<b>223,750</b>		<b>56,250</b>	<b>56,250</b>	<b>56,250</b>	<b>56,250</b>	<b>56,250</b>
<b>Purchases</b>												
<b>Building</b>								<b>1,500</b>	<b>1,500</b>	<b>20,000</b>	<b>2,000</b>	<b>2,000</b>
<b>Emergency Repairs</b>								<b>-</b>	<b>10,000</b>	<b>-</b>	<b>10,000</b>	<b>-</b>
<b>Total Purchases</b>								<b>1,500</b>	<b>11,500</b>	<b>20,000</b>	<b>12,000</b>	<b>2,000</b>
<b>Reserve Fund Balance Sheet</b>												
<b>Beginning Reserve Fund Balance</b>								<b>275,766</b>	<b>330,516</b>	<b>375,266</b>	<b>411,516</b>	<b>455,766</b>
<b>Transfer from General Fund to Reserve Fund - Vehicles</b>								<b>41,250</b>	<b>41,250</b>	<b>41,250</b>	<b>41,250</b>	<b>41,250</b>
<b>Transfer from General Fund to Reserve Fund - Buidling</b>								<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>
<b>Transfer from General Fund to Reserve Fund - Repairs</b>								<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>
<b>Less: Purchases</b>								<b>(1,500)</b>	<b>(11,500)</b>	<b>(20,000)</b>	<b>(12,000)</b>	<b>(2,000)</b>
<b>Ending Reserve Fund Balance</b>								<b>330,516</b>	<b>375,266</b>	<b>411,516</b>	<b>455,766</b>	<b>510,016</b>



As can be seen by the vehicle replacement schedule above, the required balance at December 31, 2009, is \$171,750. The amount of reserve funds as of December 31, 2009, is shown in the following figure.<sup>15</sup>

**Figure 62: GHFD Reserve Funds as 12/31/09**

<b>Reserve Funds</b>	<b>Balance</b>
Equipment Reserve	6,184
Building Reserve	138,887
Truck Reserve	<u>130,695</u>
<b>Total Capital Fund Reserves</b>	<b>275,766</b>

GHFD has \$104,016 more in reserve than is required. ESCI recommends that any excess funds be retained as an emergency fund to pay for unanticipated future costs.

***Social Considerations***

An organizational change has the potential to alter the social fabric of the community. In this case, the primary social elements of concern would be a paradigm shift in District governance. The elected and appointed leadership of GHFD will determine the outcome of any service delivery or administrative modifications. It is possible that members will feel as though they are being denied the basic equipment and supplies afforded to the surrounding agencies when, in fact, the organization would be taking actions to ensure the existence of the department.

Everyone associated with GHFD must understand the community cannot and will not continue to support the department at its current funding level. Without significant modifications in the way the department is managed, the organization is simply not sustainable.

***Feasibility/Likelihood of Success***

The feasibility or likelihood of success of this strategy will depend on the commitment of the elected and appointed leadership of GHFD. Acceptance of the will of the community and a willingness to change will greatly increase the likelihood that this strategy will succeed and GHFD will continue to exist in a sustainable manner.

Conversely, lack of full acceptance of the situation by District leadership will result in continued frustration and lack of support from the community and surrounding agencies.

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<sup>15</sup> Reserve fund balances are extracted from the Cullen & Danowski audit report dated March 15, 2010.

### ***Potential Impediments***

With any potential organizational change come potential impediments to that change. ESCI has identified the most likely impediments as well as strategies to mitigate those challenges. This list is in no way intended to be exclusive as other challenges can and will arise as changes take place within the organization. Policymakers should be vigilant in their awareness of potential impediments and be willing to address them early and often.

- **Reluctance to Change**

- As noted previously, success of this strategy will rely greatly on the attitude and actions of District leadership. Reluctance or refusal to change the organization to a more sustainable model should be met with stern criticism from the community with a continued drive to elect policymakers that understand the nature and direness of the financial situation of the community.

- **Loss of Membership**

- There is the potential that some members will feel as though they are being singled out or otherwise treated unfairly by the actions taken by this strategy and, therefore, some members may decide to no longer volunteer for GHFD. This is a common occurrence and will usually rectify itself as time passes. In addition, mutual aid agreement with surrounding agencies should be reviewed and enhanced where necessary to preempt any volunteer exodus.

## **Option B – Dissolution and Consolidation with Another District**

### ***Discussion***

Although the original petition that was the impetus for this study called for the dissolution of GHFD, the impact of that decision must be determined, specifically in regard to how the surrounding agencies' workload would be impacted.

According to NYS Law, the Town of Brookhaven has the authority to establish fire districts and to alter fire districts based on agreement between two or more districts. The Town also has the authority to dissolve fire districts based on the method of petition used in this case. If GHFD is dissolved, there will be at least some impact on one or more of the surrounding jurisdictions and one or more of those agencies; Coram FD, Medford FD (Medford Ambulance), Middle Island FD, and Yaphank FD, would need to agree to assume control of all or a portion of the area previously served by GHFD.

### ***Policy Actions***

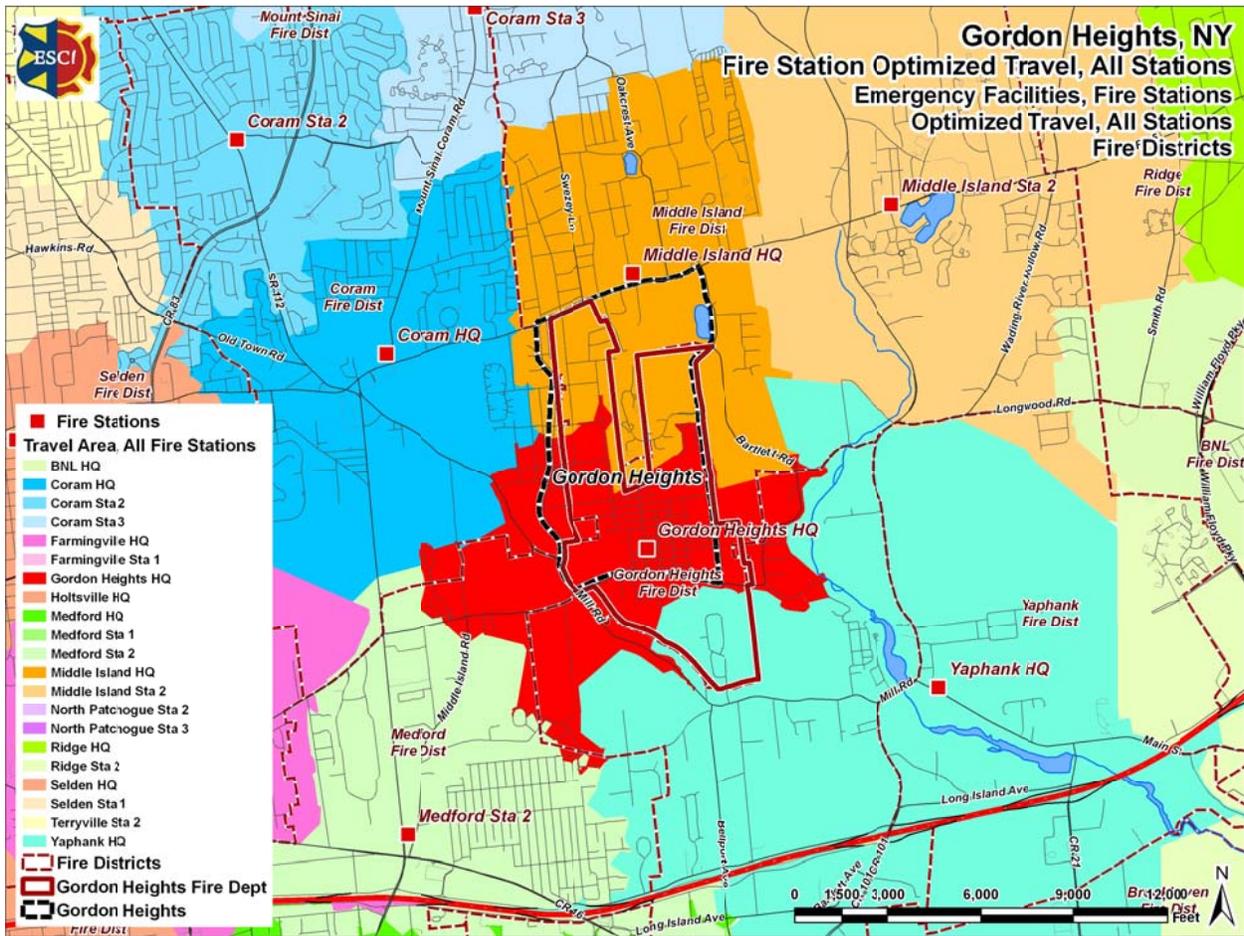
Based on the information provided in this document and the collective input from community members and emergency services providers, the elected officials of the Town of Brookhaven have the authority to dissolve GHFD. In so doing, the Town must then work with one or more of the surrounding agencies to ensure that fire suppression, rescue, and emergency medical services are not interrupted and that there is no decline in the level of service provided to the community. The following actions are recommended.

- Hold public hearing to obtain input (both for and against dissolution) of GHFD.
- Hold formal meetings with each department surrounding GHFD to ascertain interest and ability in expansion.
- Work with GHFD on liquidation or transfer of assets.

### ***Operational Impact***

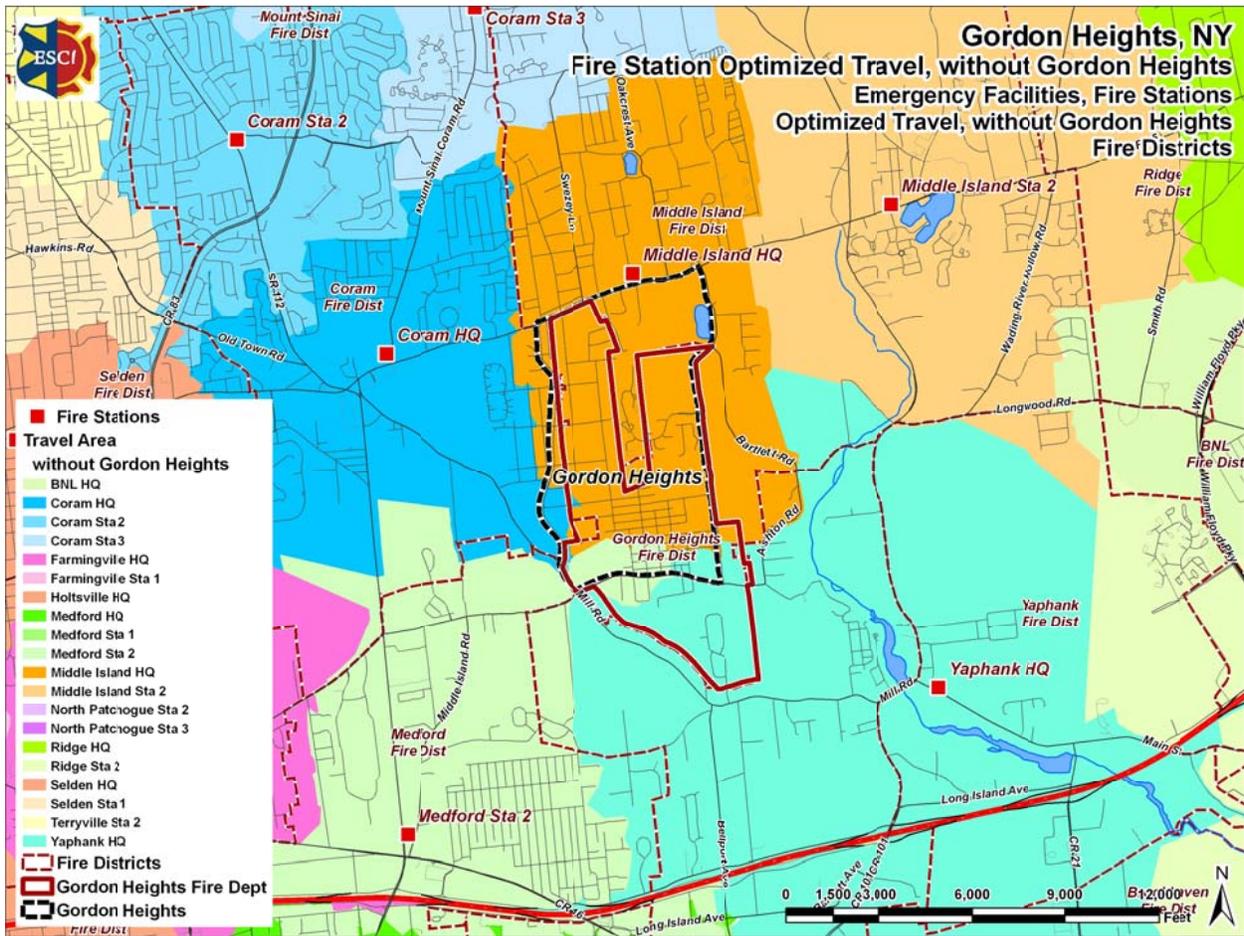
ESCI evaluated the impact to service delivery on the region based on whether or not the existing GHFD station remained open and operational. This analysis begins with an evaluation of travel times and distances to the area currently served by GHFD. The following figure illustrates an optimized travel time model from existing station locations.

Figure 63: Optimized Travel from Existing Stations – With Gordon Heights



Optimized travel simply allows analysis of which department or apparatus can respond to a given segment of roadway within the least amount of time. District boundaries are ignored and travel models are extended until they meet the travel model from an opposing station. In essence, this type of modeling allows for the development of a closest station response (CSR) rather than simply relying on pre-determined district lines. The following figure evaluates the impact on the optimized travel model if GHFD were to be closed or otherwise eliminated from the regional plan for service delivery.

Figure 64: Optimized Travel from Existing Stations - Without Gordon Heights

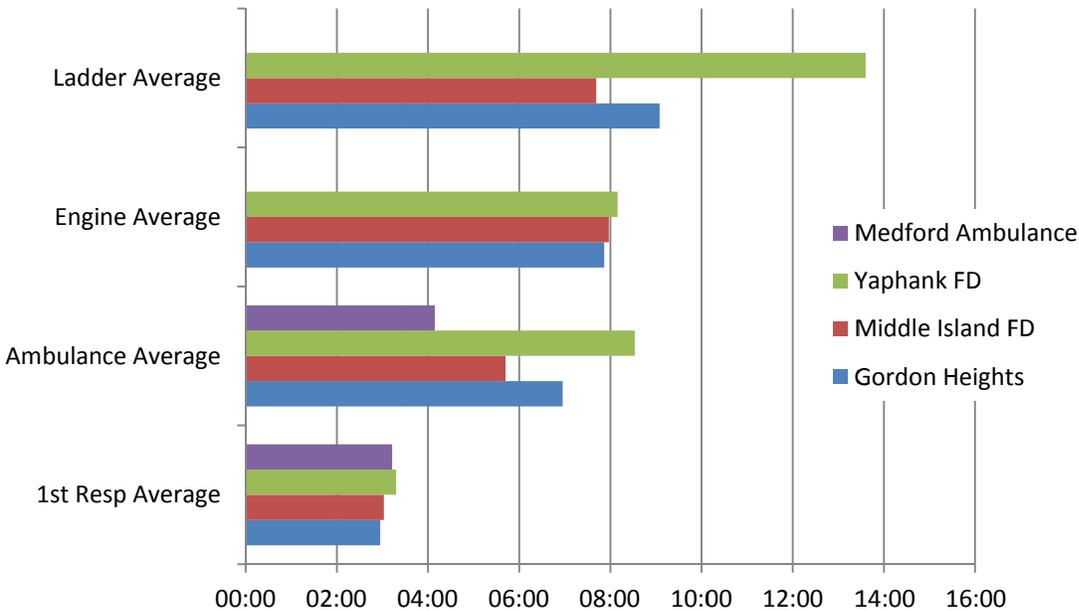


Although it would appear from the preceding figure that Middle Island would be the logical choice to assume responsibility for a majority of the GHFD area, with Yaphank and Medford each taking much smaller portions to the south, this map represents only optimized travel time and should not be confused with general response time. Response time includes the turnout time of the personnel on duty or volunteers responding to the station to retrieve the equipment. Thus, a station that is farther away can still be faster in response when compared to a closer station if that farther station has a lower turnout time.

Though the analysis contained earlier in this report indicates that GHFD has turnout times for fire apparatus that exceed the national standards found in *NFPA 1720*, ESCI compared this data with that of the three other agencies for which sufficient data was provided: Middle Island, Yaphank, and Medford Ambulance. The results, shown in the following figure, indicate some variation of turnout times for those units staffed by volunteers, while the first responder vehicles

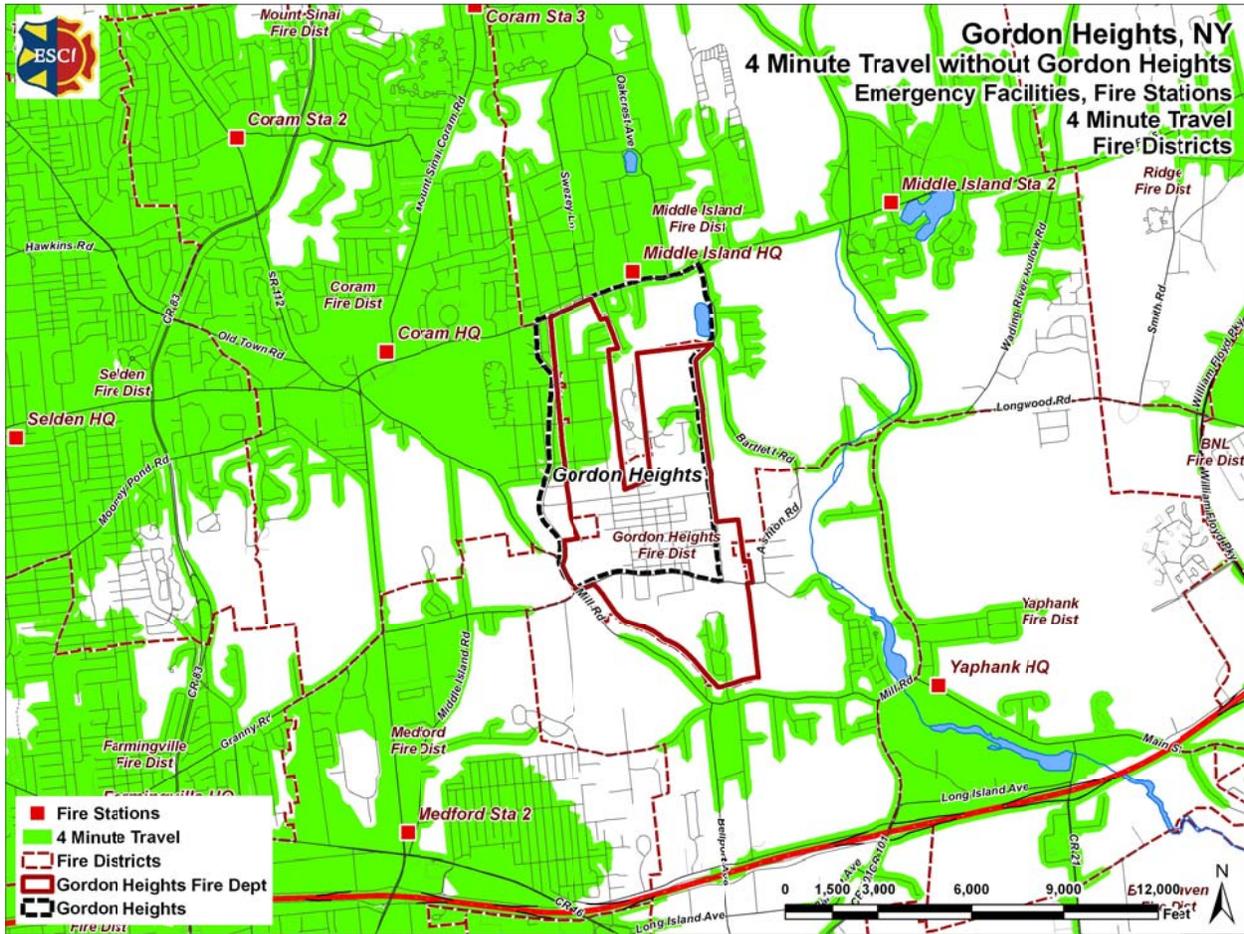
that are staffed primarily by paid personnel, are relatively consistent. The analysis does indicate, however, that the engine and the first responder unit (those units that are typically the first units to arrive on scene of a fire or EMS response) are relatively comparable in turnout time across these agencies.

Figure 65: Turnout Time Comparisons



With the preceding analysis in mind, ESCI can now provide comparison of travel time models. When compared to previous data, the following figure illustrates that closure of the GHFD station would result in the loss of the four-minute travel capability to a majority of the current district.

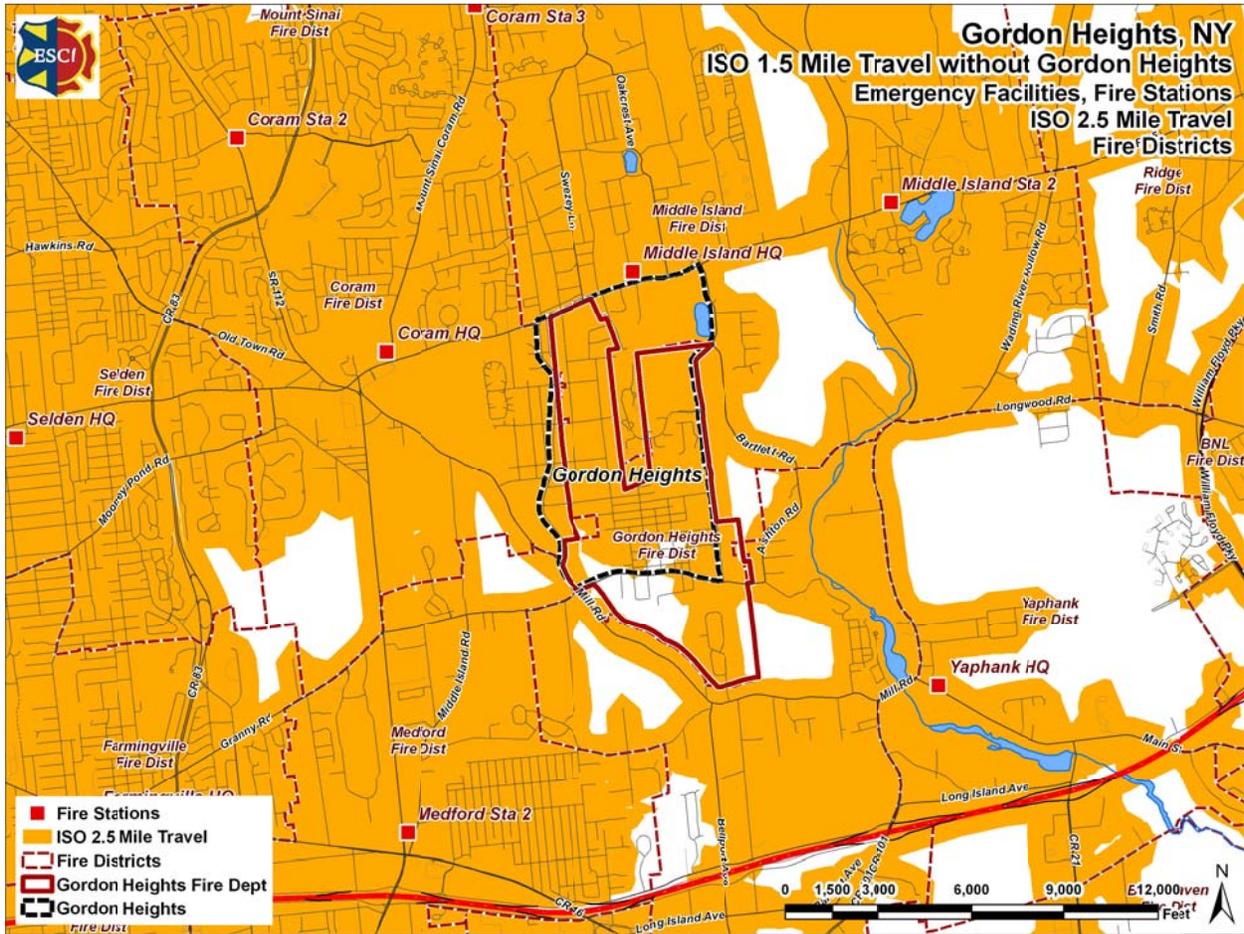
Figure 66: Travel Time Capability – Without Gordon Heights



It should also be noted from the preceding figure that the area slicing through the middle of the GHFD area is currently outside a four-minute travel model from both Yaphank and Middle Island FDs.

With regard to ISO, it was previously illustrated how 100 percent of the GHFD area fell within 1.5 miles of a fire station for engine travel. The following figure considers the elimination of the GHFD station and the impact that closure would have on the community in terms of ISO travel distances.

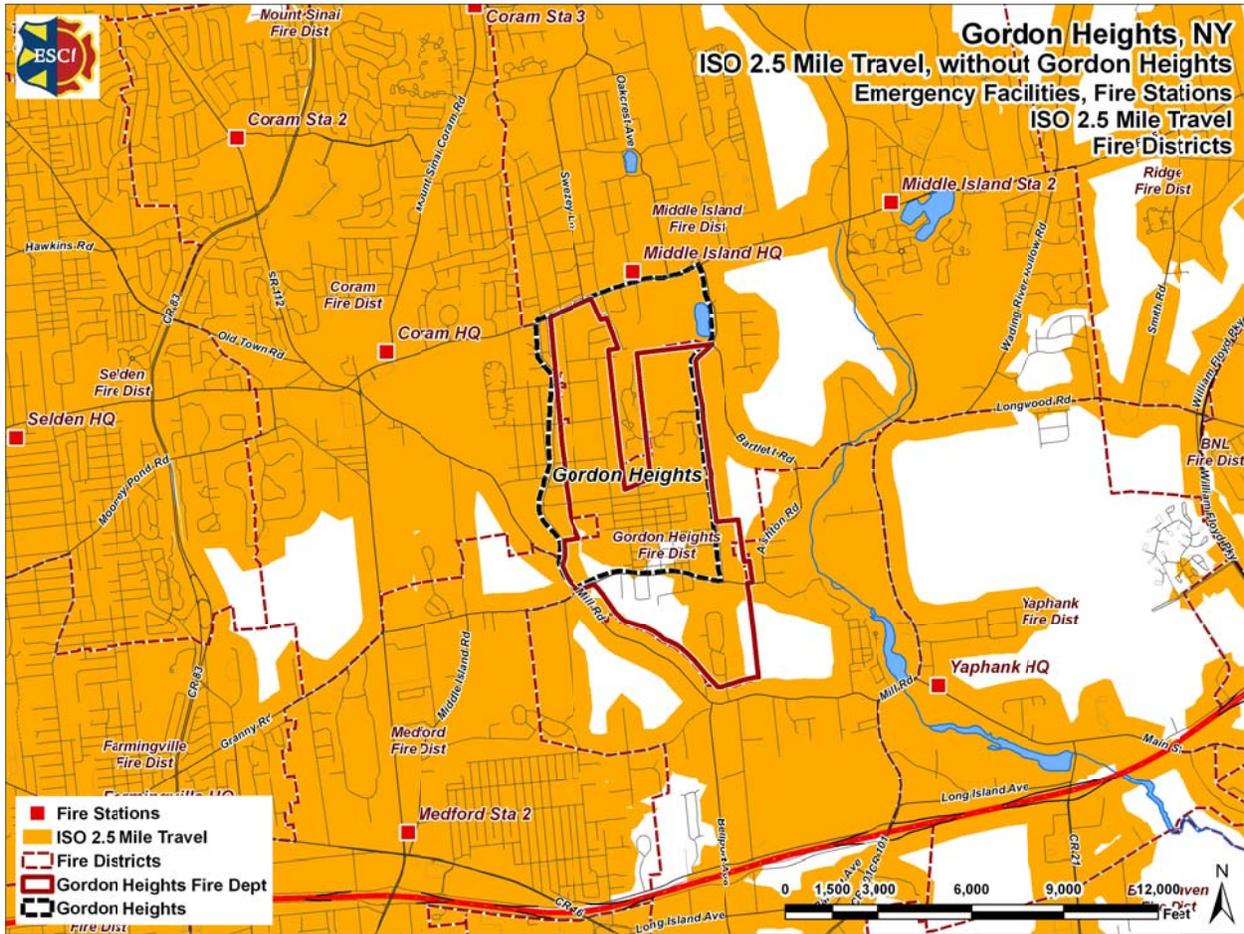
Figure 67: ISO Engine Distance – Without Gordon Heights



Although the number of parcels that would fall outside the 1.5-mile engine distance for ISO purposes would be minimal, those resident property owners would likely see an increase in homeowners' insurance premiums as a result of the closure of the existing GHFD station.

ESCI's recommendations include the removal of the GHFD aerial apparatus. The following figure illustrates the 2.5-mile travel for all regional aerial apparatus.

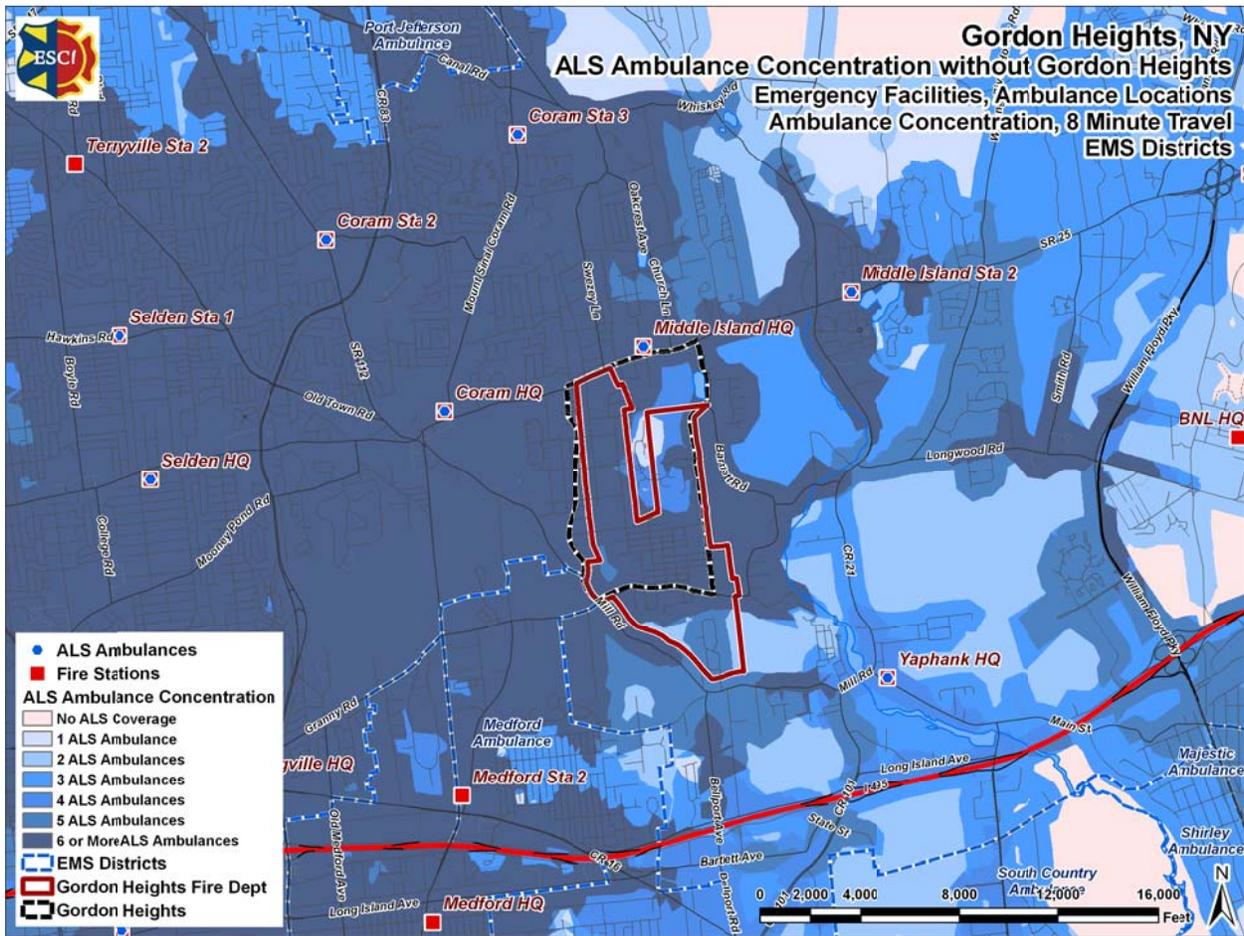
Figure 68: ISO Truck Distance – Without Gordon Heights



A vast majority of the GHFD area falls within the 2.5-mile travel distance of another aerial device. The impact of the elimination of the GHFD aerial would be minimal.

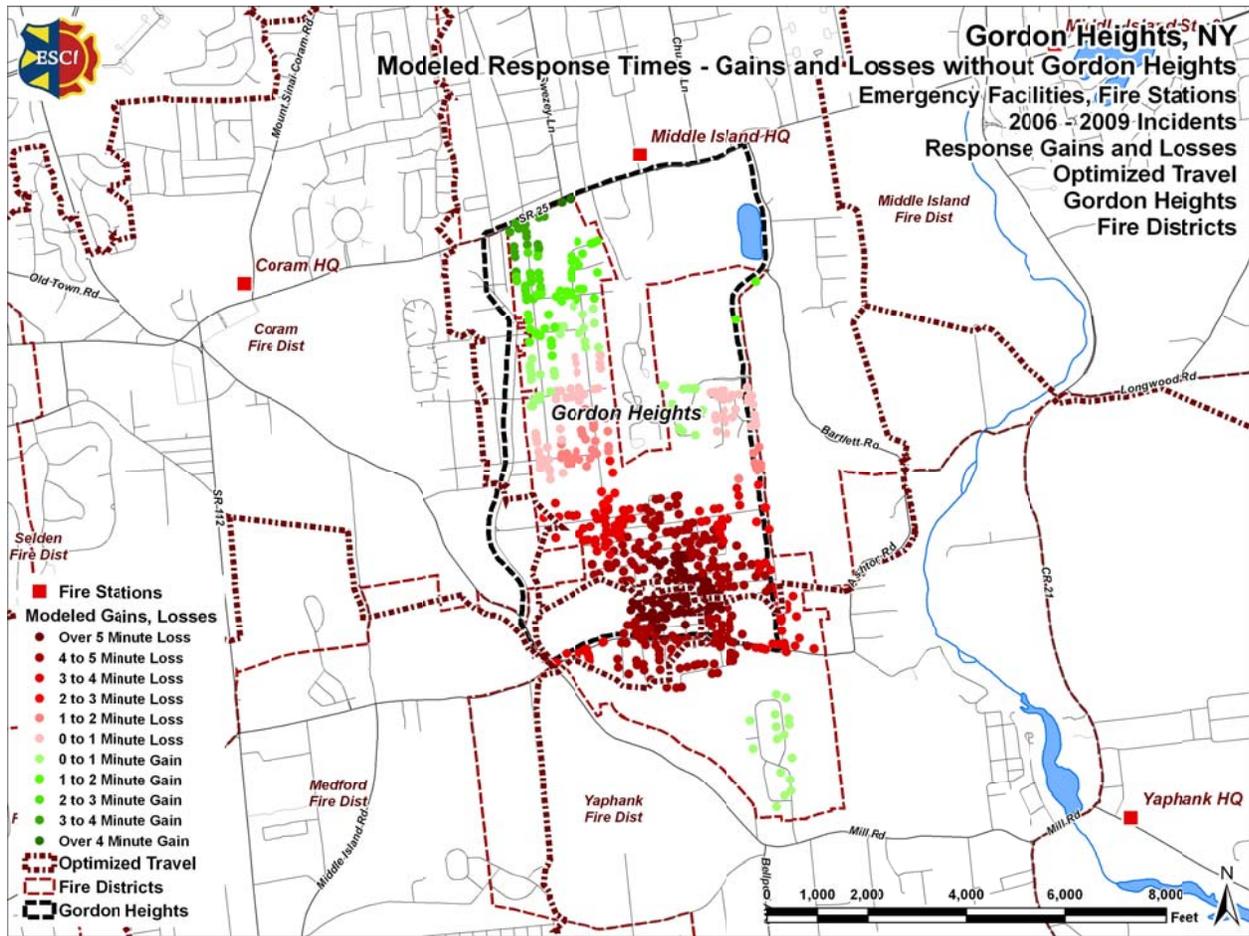
In regard to the provision of emergency medical services, it is apparent from the following figure that removal of ALS resources from GHFD (either through reallocation of EMS duties to another agency or through closure of the GHFD station) would only result in the loss of one ALS unit while still retaining the capability of responding to a majority of the area with more than one unit within eight minutes of travel time.

Figure 69: Advanced Life Support Concentration – Without Gordon Heights



ESCI uses travel time modeling to analyze and compare the effects of fire station locations. This permits accurate “before and after” comparisons of expected travel time performance for various station location strategies. In this case, ESCI applied this methodology to the effects of removing the Gordon Heights fire station from service completely. For purposes of this analysis, ESCI assumed that the Gordon Heights Fire District would be divided up into new response areas that would be assigned to the closest existing fire station in the surrounding districts of Coram, Medford, Middle Island, and Yaphank. If this occurred, some areas of the GHFD would actually be closer to a responding fire station, while other areas, particularly the area closest to the existing GHFD station, would obviously now be farther away. The following figure displays the relative gains and losses in travel time for incidents from 2005 through 2009 under this scenario.

Figure 70: Travel Time Gains and Losses – Without Gordon Heights



To provide more specific information on the overall effect on the travel time to emergency incidents in the existing GHFD area, the following table is provided.

Figure 71: Effect on Travel Time – Without Gordon Heights

Scenario	Minimum Travel Time	Maximum Travel Time	Mean Travel Time	Standard Deviation
With Gordon Heights	00:00	05:08	01:46	01:23
Without Gordon Heights	00:45	06:14	04:33	01:18

Closing the GHFD station completely would result in increasing the average response time for the existing district area by more than 2 minutes 46 seconds. This would represent a 46 percent increase in average response time of the first responder EMS unit and a 23 percent increase in the average response time of an engine. The maximum travel time to any incident would increase by 1 minute 6 seconds. In light of the information above, irrespective of the strategy

implemented with regard to governance and oversight of GHFD, keeping the Gordon Heights fire station in operation would have the least impact on response times for the greatest number of incidents when compared to what this geographic area as a whole experiences now.

Town Law section 172 relates to the consolidation of adjoining fire districts when the respective Boards of Commissioners of each special district agree to consolidate. Under Town Law section 206, all property of the original districts may become the property of the consolidated district, and the cost of debt service for all the outstanding debt of the original districts may be raised by the consolidated district. Dissolution and subsequent expansion of or consolidation with an adjoining district is somewhat more complicated. Distribution of assets under a forced dissolution is discussed in later strategies.

***Fiscal Impact***

The fiscal impact of this strategy would depend on a number of factors. First, the organization(s) that absorbed all or part of the current GHFD area would need to adjust their levy appropriately to assume responsibility for the additional property values protected. In addition, irrespective of which or how many surrounding departments participated in absorbing additional area, the question as to whether or not to keep the current GHFD station in operation will affect costs and operations. The following subsections outline the projected financial impact if GHFD were to be consolidated with any one of the other surrounding departments.

*Consolidation with Yaphank FD*

Yaphank FD TAV for the years 2006 through 2010 has shown a decrease of 0.22 percent over the five-year period as indicated in the following figure.

**Figure 72: Yaphank FD TAV, 2006 – 2010**

	<b>Actual 2006</b>	<b>Actual 2007</b>	<b>Actual 2008</b>	<b>Actual 2009</b>	<b>Budget 2010</b>
District TAV	6,101,466	6,149,055	6,071,461	6,096,107	6,087,909
Percent Change		0.78%	-1.26%	0.41%	-0.13%
5 Year Change					-0.22%

Figure 73 uses the five-year average to establish projected property value increases for future years. Since Yaphank’s assessed value decreased during the period under review, TAV for purposes of this analysis will be set at 0.0 percent. No projected increases for TAV will be

included for the years 2011 – 2015. The following table shows the TAV for Yaphank and Gordon Heights Fire Districts consolidated.

**Figure 73: Yaphank FD Consolidated TAV, 2011 – 2015**

<b>Yaphank</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
District TAV	6,087,909	6,087,909	6,087,909	6,087,909	6,087,909	6,087,909
Annual increase		0.00%	0.00%	0.00%	0.00%	0.00%
<b>Gordon Heights</b>						
District TAV	2,297,417	2,313,729	2,330,156	2,346,700	2,363,362	2,380,142
Annual increase		1.0071	1.0071	1.0071	1.0071	1.0071
<b>Consolidated TAV</b>	<b>8,385,326</b>	<b>8,401,638</b>	<b>8,418,065</b>	<b>8,434,609</b>	<b>8,451,271</b>	<b>8,468,051</b>

The above annual values will be used to project the tax rate for each year.

The table of operating costs and non-tax revenue utilizes Yaphank’s 2010 budget and the model budget discussed in previous sections of the report. If the consolidation occurs, the model budget needs to be reviewed for duplicate functions that could reduce the overall tax burden.

**Figure 74: Yaphank FD Consolidated Operating Cost**

<b>Description</b>	<b>Yaphank Budget 2010</b>	<b>Consolidated Model Budget</b>	<b>Admin Removed</b>	<b>Station Closed</b>
<b>Expense Category</b>				
Personnel Services	282,522	567,403	517,975	282,522
Business Operations	76,200	124,850	109,100	79,400
Business Administration	177,623	257,873	245,873	189,623
Bond and Lease Payments	254,500	254,500	254,500	254,500
Vehicles	123,000	145,601	145,601	123,000
Building and Grounds	73,300	170,947	170,947	73,300
Communications	11,200	45,700	45,700	11,200
Fire and Rescue	30,600	88,382	83,382	70,182
Social Security	26,670	48,463	44,682	26,670
Insurance Exempt	207,215	333,559	310,521	207,215
Subtotal w/o Capital	1,262,830	2,037,279	1,928,281	1,317,612
Fund Transfers	500,000	581,250	581,250	500,000
Non-Property Tax Revenue	(401,000)	(418,900)	(401,000)	(401,000)
Total Expenditures w/capital	1,361,830	2,217,529	2,108,531	1,416,612
Tax Rate per Hundred	22.369	26.445	25.145	16.894

The consolidation of Yaphank and Gordon Heights Fire Districts will result in an increase in Yaphank’s tax rate by \$4.076 per hundred and a decrease in Gordon Height’s tax rate by

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\$10.805 per hundred using the modeled budget for both fire and EMS and reduction of \$34.39 per hundred from the current non-consolidated budget.

The table below projects future costs and the impact on resident's tax rate through 2015.

**Figure 75: Yaphank FD Consolidated Expenses 2011 – 2015**

Description	Consolidated Budget	2011	2012	2013	2014	2015
Inflation Index	1.000	1.027	1.027	1.027	1.027	1.027
<b>Expense Category</b>						
Personnel Services	567,403	582,722	598,456	614,614	631,209	648,251
Business Operations	124,850	128,221	131,683	135,238	138,890	142,640
Business Administration	257,873	264,836	271,986	279,330	286,872	294,617
Bond and Lease Payments	254,500	261,372	268,429	0	0	0
Vehicles	145,601	149,532	153,570	157,716	161,975	166,348
Building and Grounds	170,947	175,563	180,303	185,171	190,171	195,306
Communications	45,700	46,934	48,201	49,503	50,839	52,212
Fire and Rescue	88,382	90,768	93,219	95,736	98,321	100,976
Social Security	48,463	49,772	51,116	52,496	53,913	55,369
Insurance Exempt	333,559	334,139	343,161	352,426	361,942	371,714
Subtotal w/o Capital	2,037,279	2,083,859	2,140,124	1,922,231	1,974,131	2,027,433
Fund Transfers	581,250	596,944	613,061	629,614	646,613	664,072
Non-Property Tax Revenue	(418,900)	(430,210)	(441,826)	(453,755)	(466,007)	(478,589)
Total Expenditures w/capital	2,217,529	2,250,593	2,311,359	2,098,089	2,154,738	2,212,916
Tax Rate per Hundred	26.445	26.788	27.457	24.875	25.496	26.133

Consolidation with Coram FD

Coram FD TAV for the years 2006 through 2010 has shown a decrease of 3.49 percent over the five-year period.

**Figure 76: Coram FD TAV, 2006 – 2010**

	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Budget 2010
District TAV	17,608,268	17,669,437	17,604,136	17,308,250	16,992,901
Percent Change		0.35%	-0.37%	-1.68%	-1.82%
5 Year Change					-3.49%

Figure 77 uses the five-year average to establish the projected property assessed value for increases/decreases for future years. Since Coram's assessed value decreased during the

period under review, TAV for purposes of this analysis will be set at negative 1.25 percent for the years 2011 – 2012. Years 2013 – 2015 will be projected with 0.0 percent increase for 2011. The following table shows the TAV for Coram and Gordon Heights Fire Districts consolidated.

**Figure 77: Coram FD Consolidated TAV, 2011 – 2015**

<b>Coram</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
District TAV	16,992,901	16,780,490	16,570,734	16,570,734	16,570,734	16,570,734
Annual increase		98.75%	98.75%	0.00%	0.00%	0.00%
<b>Gordon Heights</b>						
District TAV	2,297,417	2,313,729	2,330,156	2,346,700	2,363,362	2,380,142
Annual increase		1.0071	1.0071	1.0071	1.0071	1.0071

The preceding annual values will be used to project the tax rate for each year. The table of operating costs and non-tax revenue utilizes Coram’s 2010 budget and the model budget discussed in previous sections of the report. If the consolidation occurs, the model budget needs to be reviewed for duplicate functions that could reduce the overall tax burden.

**Figure 78: Coram FD Consolidated Operating Cost**

<b>Description</b>	<b>Coram Budget 2010</b>	<b>Consolidated Budget</b>	<b>Admin Removed</b>	<b>Station Closed</b>
Inflation Index		1.000		
<b>Expense Category</b>				
Personnel Services	1,580,000	1,864,881	1,815,453	1,580,000
Business Operations	296,000	344,650	328,900	299,200
Business Administration	382,050	462,300	450,300	394,050
Bond and Lease Payments	629,672	629,672	629,672	629,672
Vehicles	260,000	282,601	282,601	260,000
Building and Grounds	537,800	635,447	635,447	537,800
Communications	85,000	119,500	119,500	85,000
Fire and Rescue	299,000	356,782	351,782	338,582
Social Security	123,000	144,793	141,012	123,000
Insurance Exempt	1,102,000	1,228,344	1,205,306	1,102,000
Subtotal w/o Capital	5,294,522	6,068,971	5,959,973	5,349,304
Fund Transfers	250,000	331,250	331,250	250,000
Non-Property Tax Revenue	(70,000)	(87,900)	(70,000)	(70,000)
Total Expenditures w/capital	5,474,522	6,330,221	6,221,223	5,529,304
Tax rate per Hundred	32.217	32.816	32.250	28.664

The consolidation of Coram and Gordon Heights Fire Districts will result in an increase in Coram’s tax rate by \$0.599 per hundred and a decrease in Gordon Height’s tax rate by \$4.434 per hundred for both fire and EMS using the model budget and a reduction of \$28.014 using the

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current non-consolidated budget. The following table projects future costs and the impact on resident's tax rate through 2015.

**Figure 79: Coram FD Consolidated Expenses, 2011 – 2015**

Description	Consolidated Budget	2011	2012	2013	2014	2015
Inflation Index	1.000	1.027	1.027	1.027	1.027	1.027
<b>Expense Category</b>						
Personnel Services	1,864,881	1,915,233	1,966,944	2,020,052	2,074,593	2,130,607
Business Operations	344,650	353,956	363,512	373,327	383,407	393,759
Business Administration	462,300	474,782	487,601	500,766	514,287	528,173
Bond and Lease Payments	629,672	646,673	664,133	0	0	0
Vehicles	282,601	290,231	298,068	306,116	314,381	322,869
Building and Grounds	635,447	652,604	670,225	688,321	706,905	725,992
Communications	119,500	122,727	126,040	129,443	132,938	136,527
Fire and Rescue	356,782	366,415	376,308	386,469	396,903	407,620
Social Security	144,793	148,703	152,718	156,841	161,076	165,425
Insurance Exempt	1,228,344	1,253,084	1,286,917	1,321,664	1,357,348	1,393,997
Subtotal w/o Capital	6,068,971	6,224,407	6,392,466	5,882,998	6,041,839	6,204,969
Fund Transfers	331,250	340,194	349,379	358,812	368,500	378,450
Non-Property Tax Revenue	(87,900)	(90,273)	(92,711)	(95,214)	(97,785)	(100,425)
Total Expenditures w/capital	6,330,221	6,474,328	6,649,135	6,146,596	6,312,555	6,482,994
Tax rate per Hundred	32.815	33.907	35.179	32.492	33.340	34.209

Consolidation with Middle Island FD

Middle Island FD TAV for the years 2006 through 2010 has experienced a decrease of 2.81 percent over the five-year period.

**Figure 80: Middle Island FD TAV, 2006 – 2010**

	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Budget 2010
District TAV	12,119,401	12,154,149	12,171,256	11,935,977	11,778,858
Percent Change		0.29%	0.14%	-1.93%	-1.32%
5 Year Change					-2.81%

The following table uses the five-year average to establish the projected property assessed value for increases/decreases for future years. Since Middle Island's assessed value decreased during the period under review. TAV for purposes of this analysis will be set at negative 1.25

percent for the years 2011 – 2012. Years 2013 – 2015 will be projected with zero increase for 2011.

**Figure 81: Middle Island FD Consolidated TAV, 2011 – 2015**

<b>Middle Island</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
District TAV	11,778,858	11,631,622	11,486,227	11,486,227	11,486,227	11,486,227
Annual increase		98.75%	98.75%	0.00%	0.00%	0.00%
<b>Gordon Heights</b>						
District TAV	2,297,417	2,313,729	2,330,156	2,346,700	2,363,362	2,380,142
Annual increase		1.0071	1.0071	1.0071	1.0071	1.0071

The above annual values will be used to project the tax rate for each year.

Figure 82 utilizes Middle Island’s 2010 budget and the model budget discussed in previous sections of the report. If the consolidation occurs, the model budget needs to be reviewed for duplicate functions that could reduce the overall tax burden.

**Figure 82: Middle Island FD Consolidated Operating Cost**

<b>Description</b>	<b>Middle Island Budget 2010</b>	<b>Consolidated Budget</b>	<b>Admin Removed</b>	<b>Station Closed</b>
Inflation Index		1.000		
<b>Expense Category</b>				
Personnel Services	740,000	1,024,881	975,453	740,000
Business Operations	205,000	253,650	237,900	208,200
Business Administration	248,000	328,250	316,250	260,000
Bond and Lease Payments	200,000	200,000	200,000	200,000
Vehicles	150,000	172,601	172,601	150,000
Building and Grounds	320,000	417,647	417,647	320,000
Communications	80,000	114,500	114,500	80,000
Fire and Rescue	250,000	307,782	302,782	289,582
Social Security	70,000	91,793	88,012	70,000
Insurance Exempt	730,000	856,344	833,306	730,000
Subtotal w/o Capital	2,993,000	3,767,449	3,658,451	3,047,782
Fund Transfers	720,000	801,250	801,250	720,000
Non-Property Tax Revenue	0	(17,900)	0	0
Total Expenditures w/capital	3,713,000	4,568,699	4,459,701	3,767,782
Tax rate per Hundred	31.523	32.457	31.682	26.767

The consolidation of Middle Island and Gordon Heights Fire Districts will result in an increase in Middle Island’s tax rate by \$0.934 per hundred and a decrease in Gordon Height’s tax rate by

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\$4.793 per hundred for both fire and EMS using the model budget and a reduction of \$28.373 using the current non-consolidated budget. The following table projects future costs and the impact on resident's tax rate through 2015.

**Figure 83: Middle Island FD Consolidated Expenses, 2011 – 2015**

Description	Consolidated Budget	2011	2012	2013	2014	2015
Inflation Index	1.000	1.027	1.027	1.027	1.027	1.027
<b>Expense Category</b>						
Personnel Services	1,024,881	1,052,553	1,080,972	1,110,158	1,140,132	1,170,916
Business Operations	253,650	260,499	267,532	274,755	282,174	289,792
Business Administration	328,250	337,113	346,215	355,563	365,163	375,022
Bond and Lease Payments	200,000	205,400	210,946	0	0	0
Vehicles	172,601	177,261	182,048	186,963	192,011	197,195
Building and Grounds	417,647	428,924	440,505	452,398	464,613	477,158
Communications	114,500	117,592	120,766	124,027	127,376	130,815
Fire and Rescue	307,782	316,092	324,627	333,392	342,393	351,638
Social Security	91,793	94,272	96,817	99,431	102,116	104,873
Insurance Exempt	856,344	871,040	894,558	918,711	943,516	968,991
Subtotal w/o Capital	3,767,449	3,860,744	3,964,984	3,855,398	3,959,493	4,066,400
Fund Transfers	801,250	822,884	845,102	867,919	891,353	915,420
Non-Property Tax Revenue	(17,900)	(18,383)	(18,880)	(19,389)	(19,913)	(20,451)
Total Expenditures w/capital	4,568,699	4,665,245	4,791,206	4,703,928	4,830,934	4,961,369
Tax Rate per Hundred	32.456	33.454	34.678	34.005	34.881	35.780

Consolidation with Medford FD

Medford Fire District TAV for the years 2006 through 2010 has shown an increase of 2.01 percent over the five-year period.

**Figure 84: Medford FD, 2006 – 2010**

	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Budget 2010
District TAV	22,340,473	22,838,805	22,990,072	22,850,155	22,790,198
Percent Change		2.23%	0.66%	-0.61%	-0.26%
5 Year Change					2.01%

Figure 85 uses the five-year average to establish the projected property assessed value for increases/decreases for future years. Since Medford Fire District's assessed value increased

during the period under review, TAV for purposes of this analysis will be established at 0.40 percent increase for the years 2011 – 2015. The table below shows the TAV for Medford Fire and GHFD consolidated.

**Figure 85: Medford FD Consolidated TAV, 2011 – 2015**

<b>Medford Fire</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
District TAV	22,790,198	22,881,359	22,972,884	23,064,776	23,157,035	23,249,663
Annual increase		1.004	1.004	1.004	1.004	1.004
<b>Gordon Heights</b>						
District TAV	2,297,417	2,313,729	2,330,156	2,346,700	2,363,362	2,380,142
Annual increase		1.0071	1.0071	1.0071	1.0071	1.0071

The following table of operating costs and non-tax revenue utilizes Medford Fire's 2010 budget and the model budget discussed in previous sections of the report. If the consolidation occurs, the model budget needs to be reviewed for duplicate functions that could reduce the overall tax burden.

**Figure 86: Medford FD Consolidated Operating Cost**

<b>Description</b>	<b>Medford Fire Budget 2010</b>	<b>Consolidated Budget</b>	<b>Admin Removed</b>	<b>Station Closed</b>
Inflation Index		1.000		
<b>Expense Category</b>				
Personnel Services	475,000	759,881	710,453	475,000
Business Operations	0	48,650	32,900	3,200
Business Administration	365,189	445,439	433,439	377,189
Bond and Lease Payments	675,000	675,000	675,000	675,000
Vehicles	200,000	222,601	222,601	200,000
Building and Grounds	0	97,647	97,647	0
Communications	0	34,500	34,500	0
Fire and Rescue	422,500	480,282	475,282	462,082
Social Security	0	21,793	18,012	0
Insurance Exempt	428,833	555,177	532,139	428,833
Subtotal w/o Capital	2,566,522	3,340,971	3,231,973	2,621,304
Fund Transfers	300,000	381,250	300,000	300,000
Non-Property Tax Revenue	0	-17,900	0	0
Total Expenditures w/capital	2,866,522	3,722,221	3,531,973	2,921,304
Tax rate per Hundred	12.578	14.837	14.079	11.644

The consolidation of Medford Fire and Gordon Heights Fire District's will result in an increase in Medford Fire's tax rate by \$2.259 per hundred and an increase in Gordon Height's tax rate by

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\$3.349 for per hundred for fire protection only. Using the current non-consolidated budget for fire and EMS, a reduction of \$45.993 would be realized. EMS is figured separately. Figure 87 projects future costs and the impact on resident's tax rate through 2015.

**Figure 87: Medford FD Consolidated Expenses, 2011 – 2015**

Description	Consolidated Budget	2011	2012	2013	2014	2015
Inflation Index	1.000	1.027	1.027	1.027	1.027	1.027
<b>Expense Category</b>						
Personnel Services	759,881	513,206	527,063	541,294	555,908	570,918
Business Operations	48,650	31,388	32,236	33,106	34,000	34,918
Business Administration	445,439	436,862	448,657	460,771	473,211	485,988
Bond and Lease Payments	675,000	693,225	711,942	0	0	0
Vehicles	222,601	208,699	214,334	220,121	226,064	232,168
Building and Grounds	97,647	53,731	55,181	56,671	58,201	59,773
Communications	34,500	7,213	7,408	7,608	7,814	8,025
Fire and Rescue	480,282	469,427	482,101	495,118	508,486	522,215
Social Security	21,793	2,648	2,719	2,793	2,868	2,946
Insurance Exempt	555,177	461,461	473,920	486,716	499,857	513,354
Subtotal w/o Capital	3,340,971	2,877,860	2,955,562	2,304,197	2,366,411	2,430,304
Fund Transfers	381,250	337,122	346,224	355,572	365,173	375,032
Non-Property Tax Revenue	(17,900)	(7,189)	(7,383)	(7,582)	(7,787)	(7,997)
Total Expenditures w/capital	3,722,221	3,207,793	3,294,403	2,652,187	2,723,796	2,797,339
Tax Rate per Hundred	14.836	12.732	13.020	10.437	10.673	10.914

Consolidation of GHFD EMS with Medford Ambulance

Medford EMS District TAV for the years 2006 through 2010 has shown an increase of 1.45 percent over the five-year period. See table below:

**Figure 88: Medford EMS TAV, 2006 – 2010**

	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Budget 2010
District TAV	22,176,065	22,606,845	22,704,378	22,568,634	22,497,248
Percent Change		1.94%	0.43%	-0.60%	-0.32%
5 Year Change					1.45%

**Town of Brookhaven, NY – Fire District Dissolution Study**

Figure 89 uses the five-year average to establish the projected property assessed value for increases/decreases for future years. Since Medford EMS District's assessed value increased during the period under review, TAV for purposes of this analysis will be established at 0.30 percent increase for the years 2011 – 2015. The table below shows the TAV for Medford EMS and Gordon Heights EMS Districts consolidated.

**Figure 89: Medford EMS Consolidated TAV, 2011 – 2015**

<b>Medford EMS</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
District TAV	22,497,248	22,564,740	22,632,434	22,700,331	22,768,432	22,836,738
Annual increase		1.0030	1.0030	1.0030	1.0030	1.0030
<b>Gordon Heights</b>						
District TAV	2,297,417	2,313,729	2,330,156	2,346,700	2,363,362	2,380,142
Annual increase		1.0071	1.0071	1.0071	1.0071	1.0071

The preceding annual values will be used to project the tax rate for each year. The table of operating costs and non-tax revenue utilizes Medford EMS's 2010 budget and the model budget discussed in previous sections of the report. If the consolidation occurs, the model budget needs to be reviewed for duplicate functions that could reduce the overall tax burden.

**Figure 90: Medford EMS Consolidated Operating Cost**

<b>Description</b>	<b>Medford EMS Budget 2010</b>	<b>Consolidated Budget</b>	<b>Admin Removed</b>	<b>Station Closed</b>
Inflation Index		1.000		
<b>Expense Category</b>				
Personnel Services	375,000	635,167	568,684	375,000
Business Operations	121,500	139,588	135,274	124,700
Business Administration	133,300	153,363	147,300	133,300
Bond and Lease Payments	0	0	0	0
Vehicles	72,000	91,389	91,389	76,500
Building and Grounds	145,000	190,329	190,330	145,000
Communications	50,000	77,476	77,476	50,000
Fire and Rescue	164,000	187,197	187,197	187,197
Social Security	0	19,215	19,215	0
Insurance Exempt	185,000	282,644	282,644	200,067
Subtotal w/o Capital	1,245,800	1,776,368	1,699,509	1,291,764
Fund Transfers	426,000	478,991	478,991	426,000
Other	143,130	143,130	143,130	143,130
Non-Property Tax Revenue	0	(10,900)	(10,900)	(10,900)
Total Expenditures w/capital	1,814,930	2,387,589	2,310,730	1,849,994
Tax rate per Hundred	8.067	9.629	9.211	7.374

**Town of Brookhaven, NY – Fire District Dissolution Study**

The consolidation of Medford EMS and Gordon Heights EMS District’s will result in an increase in Medford EMS’s tax rate by \$1.562 per hundred and a decrease in Gordon Height’s EMS tax rate by \$15.772 per hundred for EMS. The following table projects future costs and the impact on residence tax rate through 2015.

**Figure 91: Medford EMS Consolidated Expenses, 2011 – 2015**

Description	Consolidated Budget	2011	2012	2013	2014	2015
Inflation Index	1.000	1.027	1.027	1.027	1.027	1.027
<b>Expense Category</b>						
Personnel Services	635,167	652,317	669,929	688,017	706,594	725,672
Business Operations	139,588	143,357	147,227	151,203	155,285	159,478
Business Administration	153,363	157,503	161,756	166,123	170,609	175,215
Bond and Lease Payments	0	0	0	0	0	0
Vehicles	91,389	93,856	96,391	98,993	101,666	104,411
Building and Grounds	190,329	195,468	200,746	206,166	211,732	217,449
Communications	77,476	79,568	81,717	83,923	86,189	88,516
Fire and Rescue	187,197	192,251	197,442	202,773	208,247	213,870
Social Security	19,215	19,734	20,267	20,814	21,376	21,953
Insurance Exempt	282,644	290,275	298,113	306,162	314,428	322,918
Subtotal w/o Capital	1,776,368	1,824,329	1,873,586	1,924,173	1,976,126	2,029,481
Fund Transfers	478,991	491,924	505,206	518,846	532,855	547,242
Other	143,130	146,995	150,963	155,039	159,225	163,525
Non-Property Tax Revenue	(10,900)	(11,194)	(11,497)	(11,807)	(12,126)	(12,453)
Total Expenditures w/capital	2,387,589	2,452,053	2,518,259	2,586,252	2,656,081	2,727,795
Tax rate per Hundred	9.629	9.856	10.088	10.326	10.569	10.817

Summary of Consolidation Options

The following table depicts the various options TAV for both the original budget submitted and the merge or updated proposal.

**Figure 92: TAV Summary**

<b>TAV</b>	<b>Original 2010</b>	<b>Consolidated</b>
GHFD Status Quo	2,297,417	2,297,417
GHFD Model Budget	2,297,417	2,297,417
Yaphank Merge with GHFD	6,087,909	8,385,326
Coram Merge with GHFD	16,992,901	19,290,318
Middle Island Merge with GHFD	11,778,858	14,076,275
Medford Fire Merge with GHFD	22,790,198	25,087,615
Medford Amb. Merge with GHFD	22,497,248	24,794,665

The following table depicts the various options for both the original budget submitted and the merge or updated proposal.

**Figure 93: Expense Budget Summary**

<b>Expenditure Budget</b>	<b>Original 2010</b>	<b>Consolidated</b>
GHFD Status Quo	1,397,499	1,397,499
GHFD Model Budget	1,397,499	829,595
Yaphank Merge with GHFD	1,361,830	2,191,424
Coram Merge with GHFD	5,474,522	6,304,117
Middle Island Merge with GHFD	3,713,000	4,542,595
Medford Fire Merge with GHFD	2,866,522	3,123,459
Medford Amb. Merge with GHFD	1,814,930	2,387,589

The following table depicts the various options' tax rates for both the original budget submitted and the merge or updated proposal.

**Figure 94: Alternative Budget and Tax Rate Summary**

	<b>2010 Budget</b>	<b>Consolidated Budget</b>	<b>Admin Removed</b>	<b>Station Closed</b>
Consolidated with YFD	1,361,830	2,217,529	2,108,531	1,416,612
Tax Rate	22.369	26.445	25.145	16.894
Consolidated with CFD	5,474,522	6,330,221	6,221,223	5,529,304
Tax Rate	32.217	32.816	32.25	28.664
Consolidated with MIFD	3,713,000	4,568,699	4,459,701	3,767,782
Tax Rate	31.523	32.457	31.682	26.767
Consolidated with MFD	2,866,522	3,722,221	3,531,973	2,921,304
Tax Rate	12.578	14.837	14.079	11.644
Consolidated with MEMS	1,814,930	2,387,589	2,310,730	1,849,994
Tax Rate	8.067	9.629	9.211	7.374

***Social Considerations***

The social considerations attached to this particular strategy are wide and varied due to the multiple options that could be considered. During interviews with area fire departments, it was verbalized that Coram, Medford, and Middle Island had no personnel or operational issues with GHFD or the District’s personnel. Yaphank FD, also never verbalized any issues with GHFD or District personnel, but was more than willing to offer to take on the responsibility for the GHFD response area and make the existing GHFD station a substation of Yaphank FD.

It became evident during stakeholder interviews that the two departments have had cultural differences in the past. The recent termination of the mutual aid agreement between the two agencies may be evidence of continuing issues with the relationship of the departments and their personnel. ESCI does not feel that a melding of GHFD and Yaphank FD would be in the best interests of the Gordon Heights community or that the outcome of such an attempt would be successful.

***Feasibility/Likelihood of Success***

If the existing GHFD area was divided up to multiple departments, the likelihood of success would depend on the District leadership and the retention of existing GHFD members and personnel. As discussed earlier, closure of the station could decrease service levels to the community, thereby creating an increased potential for strategy failure.

### ***Potential Impediments***

With any potential organizational change come potential impediments to that change. ESCI has identified the most likely impediments to strategy success. This list is in no way intended to be exclusive as other challenges can and will arise as changes take place within the organization. Policymakers should be vigilant in their awareness of potential impediments and be willing to address them early and often.

- **Other Departments Lack of Interest in Expansion**
  - Although the Town has the authority to establish a fire district, expand a fire district, and dissolve a fire district, public input and agreement of the existing District's board of directors is required prior to forcing any district to expand. Three of the four districts surrounding GHFD have formally stated that they do not wish to expand their areas to include GHFD.
- **Loss of Membership**
  - There is the potential that some members will feel as though they are being singled out or otherwise treated unfairly by the actions taken by this strategy and, therefore, some members may decide to no longer volunteer for GHFD. This is a common occurrence and will usually rectify itself as time passes. In addition, mutual aid agreement with surrounding agencies should be reviewed and enhanced where necessary to preempt any volunteer exodus.
- **Social/Cultural Clash**
  - As noted previously, many of the fire departments surrounding GHFD have formally stated their support for the continuation of the department. If GHFD is dissolved and incorporated into another district, there is the potential that the social and cultural fabric that is GHFD would not sufficiently integrate with the new organization. It is also conceivable that, under the appropriate circumstances and based on existing social elements, that service to the area could be jeopardized. It is already occurring that certain departments refuse to provide reciprocal mutual aid into the Gordon Heights community and this inequality in service could be extended.

**Option C – Dissolution and Creation of a Fire Protection District (Ambulance District)**

***Discussion***

Under NYS Law, Towns are not allowed to operate a fire department but do have the authority to establish a Fire Protection District within the boundaries of the Town and then contract fire suppression, rescue, and emergency medical services to one or more providers. An example of this type of arrangement is the Town of Malta, New York, in which the Town established a fire protection district that corresponds to the boundaries of the Town and then contracts for services with Malta Ridge Volunteer Fire Company, Round Lake Fire Company, and Malta Volunteer Ambulance.

Under this type of strategy, the Town establishes the tax rate based on a negotiated budget with each service provider, collects the taxes and then distributes the funds to the appropriate organizations. Service contracts can be negotiated annually or based on a multi-year agreement.

The establishment of a separate Ambulance District is similar in many ways to the creation of a Fire Protection District except that Ambulance District are considered ‘Special Districts’ by the State of New York and, therefore, fall under a separate statute than do Fire Protection Districts.

***Policy Actions***

Under this strategy, the Town of Brookhaven would have several policy decisions to make and several actions to take. The Town already has experience in the creation of Fire Protection and Ambulance Districts and should follow the methodologies used in the creation of the existing Districts. The following is a list of actions ESCI feels are most critical.

- Dissolve GHFD as an independent fire district.
- Create, by resolution, a fire protection district with boundaries as determined by the Town as well as an Ambulance District with identical boundaries.
- Develop and publish a request for proposal (RFP) for entities to bid on the provision of service within the fire protection and ambulance districts (optional).
- Develop a contract for service with the selected provider.
- Establish new tax rate for the fire protection and ambulance district based on the agreed upon contract.

***Fiscal Impact***

The fiscal impact of this strategy would almost entirely be applied to the citizens of GHFD. If GHFD were dissolved, then the associated tax rate currently being levied on the resident property owners would also be eliminated. Based on the provider selected to provide service to the newly formed fire protection and ambulance districts, new tax rates would be determined and applied. In all likelihood, the new tax rates would be substantially lower than the current rate. In addition to the fiscal impact on the resident property owners, the Town would incur minimal expenses in the development and distribution of an RFP for the provision of service within the fire protection district as well as expenses associated with contract negotiation and collection of taxes as determined in the contract with the service provider.

However, as has already been discussed, the property valuation within the current GHFD is not sufficient to adequately support the current level of service being provided. This would not change by simply converting the independent fire district to a Fire protection District. This alternative would, however, give the Town of Brookhaven more control over the cost to provide services as well as the level of services provided, presumably a nearly equal level of service at a substantially lower cost.

***Operational Impact***

The operational impact of this strategy will be based on how the Town approaches the process of selecting a service provider to be responsible for the fire protection district. The Town has two basic options: Solicit bids from providers as mentioned above or contract directly with Gordon Heights Fire Department. Notice here that the ‘fire district’ will have been dissolved but the ‘fire department’ (the non-taxing 501(c)(3) not-for-profit membership corporation) would remain.

Based on the fact that GHFD (the District) currently owns all facilities and apparatus currently associated with GHFD, a decision by the District would be required as to how to handle the transfer, sale, donation, or other liquidation of all physical assets. Although primarily a financial impact, this uncertainty is also an operational concern since, without equipment, Gordon Heights Fire Department cannot function. If the equipment is liquidated and either the fire department or another agency is granted the contract to provide service, resources from another location will be necessary as well as determining where to locate a new facility that would be required based on previously presented travel models.

Under current state law, property of GHFD would need to be offered at public auction if the District is dissolved with sale proceeds going to retire existing debt. Remaining assets could then be transferred to the Town if not sold or transferred to another special district. If assets are not transferred to the Town or otherwise sold or transferred to another special district, they could be claimed by the state. Section 198(12) of New York Town Law states, “(b) Notwithstanding any other provision of this chapter, the town board or the commissioners of a district with the approval of the majority of the town board may sell all or any part of the property and facilities of an improvement district to a county, a city, a village, a town...”<sup>16</sup> Although this particular section of the law pertains to improvement districts, the applicability to this situation should be investigated by the Town through legal counsel.

It is ESCI’s recommendation that, if dissolution is approved, the Town work with GHFD in drafting an asset disposition plan that would transfer all assets to the Town just prior to the actual dissolution of the District. This would allow the Town to maintain the equipment and/or facility while potentially offering those items to the entity(s) contracted to provide service to the area.

### ***Social Considerations***

How this particular strategy plays out will determine the social and cultural implications that will apply. If the provision of service with the Gordon Heights community is contracted back to the not-for-profit Gordon Heights Fire Department, it is conceivable that little would change in the way of organizational culture other than the current governance structure and, perhaps, the level of equipment and physical resources that are available to the department.

Conversely, if another organization assumes control of operational responsibilities, the current social and cultural fabric of GHFD would be altered to conform to the new service delivery organization. Ultimately, the social and cultural implications of this strategy would need to be evaluated based the organization chosen to provide service to the newly created fire protection district.

### ***Feasibility/Likelihood of Success***

In ESCI’s professional opinion, this strategy is ultimately feasible and has a high likelihood of success. This opinion is based on the following.

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<sup>16</sup> NYS Town Law Article 12 § 198. 12(b).

- Although GHFD would be dissolved, the not-for-profit volunteer fire department would continue to exist and could feasibly continue to deliver service to the community with only an alteration of the governance structure of the organization.
- A certain level of competition is generated through the potential bid process to deliver service to the Gordon Heights community, likely resulting in a lower cost of operations
- The Town would have a significant amount of input into the delivery of service and contract provisions for the delivery of service at an efficient and effective level to the Gordon Heights community.

### ***Potential Impediments***

With any potential organizational change come potential impediments to that change. ESCI has identified the most likely impediments to strategy success. This list is in no way intended to be exclusive as other challenges can and will arise as changes take place within the organization. Policymakers should be vigilant in their awareness of potential impediments and be willing to address them early and often.

- **Inability to Negotiate with GHFD**
  - One of the best-case scenarios would be for GHFD to be dissolved and a contract for the fire protection district be awarded to Gordon Heights Fire Department. If, however, the leadership and/or membership of Gordon Heights Fire Department is either unable or unwilling to negotiate the terms of the contract in accordance with budget modifications outlined in this report, the equipment and other physical assets currently owned by GHFD could be lost resulting in a higher cost of operation for the agency ultimately awarded the contract to provide service.
- **Insufficient Response to RFP**
  - It is conceivable that the Town, upon issuing an RFP for the provision of fire suppression, rescue, and emergency medical services to the Gordon Heights community, could receive an insufficient number of respondents to the RFP or deem those that do respond inadequate to deliver service at the required level. This circumstance would require the Town to take emergency action and grant temporary contracts for the provision of services and revisit the RFP process with potential lower performance standards.

**Option D – Status Quo with Enhanced Financial Oversight**

***Discussion***

This strategy, in essence, is a combination of Options A and C in that it would require that GHFD take drastic measures to substantially reduce its operating budget, and therefore its tax rate, while submitting to an enhanced level of financial oversight by the Town of Brookhaven. By implementing this strategy, the Town of Brookhaven would be issuing an ultimatum to GHFD by insisting on action or facing potential dissolution. This would be similar to the Nassau County Finance Authority (NIFA). In the case of Nassau County, NIFA was granted authority through the Nassau County Interim Finance Authority Act, Chapter 84 of the Laws of 2000, as supplemented by Chapter 179, to review financial plans submitted, make recommendations, monitor compliance and impose certain controls on Nassau County's financial operations. NIFA is governed by a seven-member board appointed by the Governor. In the case of GHFD, the Town of Brookhaven Town Board is suggested to serve as the oversight board and work with GHFD in controlling expenditures and developing an operating budget commensurate with the community's expectations.

The petition that was the impetus for this study was the tax rate applied by GHFD, not necessarily the service provided. This strategy would force the District to lower its tax rate without the Town being required to take the ultimate action of dissolution. In effect, this strategy would 'table' the vote of the Town Council on dissolution for a specified period of time to allow GHFD to make the necessary operational and administrative modifications to substantially reduce the budget.

***Policy Actions***

The Town of Brookhaven, in implementing this strategy, would find it necessary to have the Town attorney work with GHFD counsel to draft a performance contract that outlines the expectations of the Town as well as criteria that must be achieved in the future to stave off dissolution. The terms of this contract, or agreement, would be highly variable but the outcome should be that the tax rate applied to the community is more commensurate with the desires of the citizens and the ability of the community to pay. Specific policy actions would include:

- Holding a public hearing to gather input from the community about the emergency services provided.
- Working through the Town Attorney and GHFD counsel, draft an agreement that meets the expectations as determined during the public meeting.
- Voting to table the issue on dissolution.
- Developing periodic review mechanisms to ensure compliance with the agreement.
- Taking appropriate action at a later date based on the outcome of the performance agreement.

### ***Operational Impact***

With the exception of a reduced administrative staff, a reduced number of physical assets, and a modified budget in line with that recommended in this report, the day-to-day operations of the department should not be significantly impacted by the implementation of this strategy.

### ***Fiscal Impact***

The Town will incur some level of expense in the negotiation and drafting of the performance agreement but will otherwise face no fiscal impact. Based on the terms of the agreement, however, the citizens of GHFD should see a significant savings in the fire tax rate in the near future. The operating budget for GHFD should be substantially reduced but, as outlined previously, operations should not be affected.

### ***Social Considerations***

The social and cultural impact of this strategy has the potential to be high in that this type of enhanced oversight and involvement on the part of the Town could be construed as excessive government intrusion in the business of another independent quasi-governmental entity. While this perception could lead to disputes between the Town and the District, it should be remembered that, at this point, the Town has taken no formal action on the dissolution of the District and can bring that issue to a vote at any time after the initial action.

### ***Feasibility/Likelihood of Success***

This option is considered to be feasible but the likelihood of success will be determined by the openness of the leadership of GHFD to accept an enhanced level of oversight and involvement by the Town in the operations of their organization.

**Potential Impediments**

With any potential organizational change come potential impediments to that change. ESCI has identified the most likely impediments to strategy success. This list is in no way intended to be exclusive as other challenges can and will arise as changes take place within the organization. Policymakers should be vigilant in their awareness of potential impediments and be willing to address them early and often.

- **Lack of Willingness to Submit to Enhanced Oversight**
  - It is conceivable that the leadership of GHFD refuse to submit to an enhanced level of oversight on the part of the Brookhaven Town Board. In this case, the Town will find it necessary to explore other options in regard to controlling the costs to provide fire suppression, rescue, and emergency medical services to the Gordon Heights community.
- **Insufficient Compliance with Performance Agreement**
  - If, after submitting to enhanced oversight, GHFD fails to make substantial changes that will reduce the tax rate applied to the community, the Town will find it necessary to take up discussions once again on the issue. This could result in additional oversight or the Town being forced to explore other options in controlling the cost passed on to the community.
- **Lack of Patience on the Part of Citizens**
  - The group of citizens that generated the petition that served as the impetus for this study may find this strategy unsatisfactory in that it does not take sufficiently swift action to control cost but rather puts the onus of burden back on the District.

## **Findings, Recommendations, and Plan of Implementation**

This report contains a large quantity of empirical and analytical information on the current fire suppression, rescue, and emergency medical services provided by the Gordon Heights Fire District. In addition, the workload or service demand of the organizations that surround GHFD was also evaluated to determine what, if any, impact would be felt by these organizations if GHFD were to be dissolved by the Town of Brookhaven. The previous sections of this report summarized this information and provided several strategies for future service delivery that would both maintain or improve the current level of service provided to the community and reduce the tax load on the resident property owners. This section identifies what ESCI believes is the best, most feasible, and most likely to succeed option of those presented previously.

### **Findings**

In determining the most feasible options, ESCI has made certain findings and assumptions based on that data analyzed and the information provided by the groups and individuals interviewed throughout this process. Those findings and assumptions include:

- The sole purpose of the petition to dissolve GHFD was to reduce the tax rate levied by the District on the resident property owners.
- The District contains almost entirely residential properties with little to no commercial properties.
- The Gordon Heights Fire District does not follow the boundaries of the Gordon Heights community as defined by the U.S. Census Bureau.
- Certain portions of the Gordon Heights community have been excluded from the GHFD response area based on issues other than efficient travel time and operations.

### **Preferred Option**

The preferred option, in ESCI's professional opinion is two-fold and rests entirely on the willingness of the leadership of GHFD to take the necessary measures to ensure continued existence.

#### ***Preferred Option 1: Strategy D - Status Quo with Enhanced Financial Oversight***

In ESCI's professional opinion, the most feasible strategy would be for GHFD to submit to enhanced oversight by the Town of Brookhaven and a commitment to a substantial reduction in expenditures as outlined in this report. This strategy would allow the District to retain its history, pride, and independence while proving to the community that the leadership and membership are willing to listen to the desires of the citizens and take the appropriate actions to reduce the tax burden on the community.

***Preferred Option 2: Option C – Dissolution and Creation of a Fire Protection District***

In the event that GHFD leadership is not willing to submit to enhanced oversight by the Town or fails to comply with the terms of the performance agreement discussed under Strategy D, the next preferred option for the Town would be to dissolve the District, create a fire protection district in its place, and contract for service with another provider

**Conclusion**

Gordon Heights Fire District is an organization that has a proud history and continues to serve the Gordon Heights community to the best of its ability. To that end, however, the District has lost sight of the community's ability and willingness to support the organization at its current level of funding. In addition, the services being provided by GHFD, although not a subject of community complaint, are well below both national standards and expectations based on the level of funding currently received. The focus of this study was not the effectiveness of the current services delivered but rather an evaluation to determine how to best deliver those services in the future while substantially reducing the financial burden on the community. ESCI offers the recommendations in this report to assist the Town in implementing strategies that will best benefit the public while ensuring that the current level of service is not jeopardized.

The ESCI project team began collecting information concerning the Gordon Heights Fire District and the Town of Brookhaven in May 2010. The team members recognize that the report contains an extremely large quantity of information and ESCI would like to thank the elected and appointed officials of the Town of Brookhaven as well as the elected staff and members of Gordon Heights Fire District, Coram Fire District, Medford Fire Department, Medford Ambulance, Middle Island Fire District, and Yaphank Fire District for their tireless efforts in bringing this project to fruition. ESCI would also like to thank the various individuals and external organizations for their input, opinions, and candid conversations throughout this process. It is ESCI's sincere hope that the information contained in this report is utilized to its fullest extent and that the emergency services provided to the citizens of Gordon Heights and the surrounding areas are improved by its implementation.

## Appendix A – Scope of Work

### Fire District Dissolution Feasibility Analysis

The scope of work for this project was:

#### Phase I: Project Initiation, Fieldwork and Stakeholder Input

##### Task 1-A: Project Initiation & Development of Work Plan

ESCI will converse with the elected/appointed officials of the Town of Brookhaven and its project liaison to gain a comprehensive understanding of the background, goals, and expectations for the project. ESCI's project manager will refine and present the project work plan that will guide the project team. This work plan shall be developed identifying:

- Primary tasks to be performed
- Person(s) responsible for each task
- Time table for each task to be completed
- Method of evaluating results
- Resources to be utilized
- Possible obstacles or problem areas associated with the accomplishment of each task

This meeting will also help to establish working relationships, make logistical arrangements, determine an appropriate line of communications, and finalize contractual arrangements.

##### Task 1-B: Acquisition & Review of Background Information

ESCI will request the following information and data from the Town's assigned project liaison and/or the Gordon Heights Fire District. This data will be used extensively in the analysis and development of the feasibility report. The documents and information relevant to this project will include, but not be limited to, the following:

- Past or current emergency service studies or research
- Community planning documents, including current and future land use information
- Local census and demographics data
- Zoning maps and zoning codes
- District financial data, including debt information, long-range financial plans and budget/revenue projections
- District administrative policies and procedures
- Standard Operating Guidelines (SOGs) and service delivery practices
- Current service delivery objectives and targets for the community
- Facilities and apparatus inventories
- Local collective bargaining agreements, if applicable
- Automatic and mutual aid agreements
- Records management data, including National Fire Incident Reporting System (NFIRS)

incident data

- Computer-Aided Dispatch (CAD) incident records
- Local Geographic Information Systems (GIS) data

### **Task 1-C: Primary Fieldwork and Stakeholder Input**

The ESCI project team will conduct site visits in the Town, the Gordon Heights community, and the Gordon Heights Fire District for the purpose of conducting interviews with, and gathering information from, key personnel including:

- Elected or appointed officials
- Fire district managers and other key staff
- Finance function managers for the Town and District
- Community planning staff
- Employee and volunteer groups of the District
- Civic organizations in and around the District area
- Organizers of the Gordon Heights Fire District dissolution petition
- Officials of neighboring fire districts around Gordon Heights
- Others as they may contribute to this project

From these interviews, ESCI will obtain additional perspective on operational, economic, and policy issues facing the agencies. In addition, the project team will learn more about availability of data necessary to meet projected goals.

## **Phase II: Evaluation of Current Conditions**

The initial phases of the study focus on a baseline assessment of the current organizational conditions and current service performance of the Gordon Heights Fire District. ESCI will conduct an organizational review of these departments based on the elements included in the following tasks. The purpose of this evaluation is to assess the agencies' operations in comparison to industry standards and best practices, as well as to create a benchmark against which the options for future service delivery can be measured.

### **Task 2-A: Organization Overview**

An overview of the District and community will be developed discussing:

- History, formation, and general description of the District
- Description of the current service delivery infrastructure
- Governance and lines of authority
- Foundational policy documents
- Organizational design
- Service area population and demographics

### **Task 2-B: Capital Assets and Capital Improvement Programs**

ESCI will review status of current major capital assets (facilities and apparatus) and analyze the existing condition of these assets, their market value, and their viability for continued use in future service delivery, including:

**Facilities** – Tour and make observations in areas related to station efficiency and functionality.

Items to be contained in the report include:

- Design
- Construction
- Safety
- Environmental issues
- Code compliance
- Staff facilities
- Efficiency
- Future viability & improvement needs

**Apparatus / Vehicles** - Review and make observations regarding inventory of apparatus and equipment. Items to be reviewed include:

- Age, condition, and serviceability
- Distribution and deployment
- Maintenance
- Regulations compliance
- Future replacement and improvement needs
- Market value

### **Task 2-C: Staffing and Personnel Management**

ESCI will review the District's staffing levels. Areas to be considered include:

- Review and evaluate administration and support staffing levels
- Review and evaluate operational staffing levels
- Review staff scheduling methodology
- Analyze current staffing performance for incidents
- Review utilization of career and volunteer companies, where applicable

Personnel management systems of the District will also be reviewed, focusing on:

- Human resources policies and handbooks
- Quality and status of job descriptions
- Personnel reports and recordkeeping
- Compensation systems
- Disciplinary processes
- Counseling services
- Application and recruitment processes
- Testing, measuring, and promotion processes
- Member retention efforts and programs
- Health and wellness programs

### **Task 2-D: Service Delivery and Performance**

ESCI will review and make observations in areas specifically involved in, or affecting, service levels and performance of the District, either individually or when operating in concert with one

another in the study area (the collective jurisdiction of all organizations included in the study).

Areas to be reviewed shall include, but not necessarily be limited to:

- Demand Study –
  - Analysis of current service demand by incident type and temporal variation
  - Analysis and geographic display of current service demand density
- Distribution Study –
  - Overview of the current facility and apparatus deployment in the Gordon Heights Fire District and neighboring districts, analyzed through Geographical Information Systems software, with identification of service gaps and redundancies. This distribution study will be conducted for the study area as a whole, with all existing facilities included in the analysis.
- Concentration Study –
  - Analysis of geographic display of the response time necessary to achieve full effective response force arrival in the study area using existing distribution of all area resources
  - Analysis of company distribution as related to effective response force assembly in the study area
- Reliability Study –
  - Review of actual or estimated failure rates of individual companies (to the extent data is complete)
  - Analysis of call concurrency
- Performance Summary –
  - Analysis of actual system response time performance, analyzed by individual components of turnout and travel (to the extent data is available).
  - Analysis of response time performance by type of call
- Efficiency, effectiveness, and performance of existing mutual and automatic aid systems
- Efficiency, effectiveness, and performance of EMS integration (first responder, etc.)

### **Phase III: Future Service Delivery Options**

The next phase of the project will identify and model various strategies to serve the service demand and community fire protection risks. ESCI will develop and analyze various operational models for providing emergency services with the specific intent of identifying those options that can deliver reasonable levels of service comparable to nationally recognized standards and industry practices. Analysis will be provided identifying the best long-range strategy for service delivery and the impact of initiating such a strategy.

#### **Task 3-A: Development of Response Standards and Targets**

An appropriate set of response performance goals will be developed for the study area matching the nature and type of risks observed in the previous report sections. The performance goals shall be developed with consideration to:

- Incident-specific staffing levels to meet the critical tasking analysis for the identified risks
- Apparatus assignments to accommodate the anticipated fire flows and other critical

functions of the identified risks

- Time standards that will provide for effective initiation of critical tasks and functions

These performance goals will be developed for application to the entire study area, with consideration given to varying levels of risk, density of population and service demand. Where appropriate, service delivery planning zones will be developed to allow for the application of urban, suburban, rural or wilderness levels of service performance goals.

### **Task 3-B: Analysis of Service Delivery Options**

ESCI will develop an analysis of long-range options for alternative service delivery that will achieve the identified performance objectives and targets. This may include, but is not necessarily limited to, specific options regarding:

- Integration of Gordon Heights Fire District area into one or more neighboring fire districts
- Response of one or more neighboring fire departments through contractual agreement with Town Board

ESCI will evaluate and present in graphical and descriptive format for the deployment option(s):

- Extent to which it achieves established operational performance goals
- Potential negative consequences on service delivery

### **Task 3-C: Analysis of Alternatives to Dissolution**

ESCI will develop an analysis of the potential for maintaining service delivery through the existing Gordon Heights Fire District through improvements to system in areas such as:

- Agency management and organization
- Staffing and personnel deployment
- Service delivery methods
- Alteration of fire district boundaries
- System funding and cost recovery
- Enhanced cooperative service among districts or agencies

### **Task 3-D: Analysis of Consolidation/Merger Options**

ESCI will develop an analysis of the potential for maintaining service delivery through the existing facility, personnel and apparatus through consolidation or merger of the Gordon Heights Fire District with one or more neighboring fire districts.

The various partnering strategies will be described. The following alternatives will be evaluated and discussed:

- Functional consolidation
- Operational consolidation

- Legal unification or merger

Within each presented option for consolidation/merger, ESCI will evaluate and discuss the following:

- Level of cooperation
- Estimated timeline for completion
- Affected sections, i.e. Administration, Operations, Support Services
- Affected stakeholders
- Objective of strategy
- Summary of strategy
- Guidance
- Fiscal considerations
- Social considerations

## **Phase IV: Impact Analysis**

The next phase of the project will identify and model financial impacts of the dissolution and the various operational models for providing emergency services. In addition, all other organizational and cultural impacts will be assessed and explained.

### **Task 4-A: Financial Projections of Dissolution and Service Delivery Options**

ESCI uses computer-driven model budgets for each agency to allow a comparative examination of the actual public costs for each fire agency, and as a tool for analyzing the financial effects of any type of contract service, consolidation of districts or cooperative effort. Budget modeling is also used to measure the effects of the proposed change(s). Funding mechanisms are identified and comprehensive financial outcomes are provided for each service delivery strategy offered.

- Review and analyze department budgets and revenues
- Develop projected budget for each service delivery strategy option extending to a minimum of five years
- Identify financial issues of each strategy option
- Identify areas of short and long-term savings and costs
- Comparison of total cost for services and discussion of the level of increase or decrease
- Modeled assessments for residential and commercial properties
- Presentation of comparative matrix for other similar districts and departments

Fiscal analysis is an important component of the fire service options analysis. Long-term survival of an emergency services system requires that the system be adequately funded. ESCI determines the fiscal state of the District, and develops recommendations that are consistent with the community's financial capability to provide adequate, cost effective services to citizens. In

addition, budgeting practices are thoroughly examined, and alternate methodologies may be suggested.

#### **Task 4-B: Other Financial Impacts**

In addition to the fiscal analysis of each service delivery strategy option, ESCI will present an evaluation of other financial impacts of the options or of dissolution, including:

Impact of property and asset disposition

- Payment of outstanding obligations, and the levy and collection of necessary taxes/assessments
- Impact and resolution of existing volunteer member's Length of Service Awards Program (LOSAP)
- Impact on tax exemptions of local volunteer firefighters and first responders
- Impact on, and alternatives for, paid employees, elected officials and department officers

#### **Task 4-C: Analysis of Additional Non-Fiscal Factors**

ESCI will also review other cultural and community impacts resulting from dissolution, including:

- Impact on community identity
- Racial implications of the dissolution
- Community culture and social implications of the dissolution

### **Phase V: Findings and Recommendations**

The final phase of the project will provide a summary of the key findings of the study and a specific plan of action for moving forward.

#### **Task 5-A: Findings, Recommendations, and Plan of Implementation**

Any major change in emergency service delivery methodology presents the community leaders with a series of challenges. Successful implementation of any feasible strategy will require that significant matters be addressed regardless of which form of service delivery is chosen. Those issues will be identified here.

- Findings
  - Feasibility of each option will be presented
- Preferred Option
  - The preferred option or options will be presented and discussed at length
- Policy Action
  - Necessary policy action by the elected bodies will be described
- Timelines
  - The recommendations outlined in this section provide general completion timelines offered to guide the agencies in developing a more detailed listing during the formal planning process
- Process Issues

- Strategic planning, legal considerations, management and governance, funding and other issues will be provided in detail

## **Phase VI: Development, Review, and Delivery of Project Report**

### **Task 6-A: Development and Review of Draft Project Report**

ESCI will develop and produce three (3) copies of a draft version of the written report for review by the client and client representatives. Client feedback is a critical part of this project and adequate opportunity will be provided for review and discussion of the draft report prior to finalization. The report will include:

- Detailed narrative analysis of each report component structured in easy-to-read sections and accompanied by explanatory support to encourage understanding by both staff and civilian readers
- Clearly designated recommendations highlighted for easy reference and cataloged as necessary in a report appendix
- Supportive charts, graphs, and diagrams, where appropriate
- Supportive maps, utilizing GIS analysis as necessary

### **Task 6-B: Delivery and Presentation of Final Project Report**

ESCI will complete any necessary revisions of the draft and produce ten (10) publication-quality bound, final versions of the written report, along with an electronic version in pdf file format.

A formal presentation of the project report will be made by ESCI project team member(s) to a joint meeting of the community leaders and/or organizations included in this study. The presentation will include the following:

- A summary of the nature of the report, the methods of analysis, the primary findings, and critical recommendations
- Supportive audio-visual presentation
- Review and explanation of primary supportive charts, graphs, diagrams, and maps, where appropriate
- Opportunity for questions and answers, as needed
- All presentation materials, files, graphics, and written material will be provided to the client at the conclusion of the presentation(s)



**Emergency Services  
Consulting *International***

**Corporate Offices  
25200 SW Parkway Avenue, Suite 3  
Wilsonville, Oregon 97070  
800.757.3724**

**Eastern Region Office  
249 Normandy Road  
 Mooresville, North Carolina 28117  
704.660.8027**

**National Capital Region Office  
4025 Fair Ridge Drive  
Fairfax, Virginia 22033  
703.273.0911**