

Township of Piscataway, New Jersey

FIRE DISTRICT AND
EMS DELIVERY STUDY
Review, Analysis, and Report

FINAL REPORT

February 2012



Prepared by:
TriData Division,
System Planning Corporation
3601 Wilson Boulevard
Arlington, VA 22201

Township of Piscataway, New Jersey

Fire District and EMS Delivery Study *Review, Analysis, and Report*

FINAL REPORT

Submitted to:

Mayor Brian C. Wahler
&

Piscataway Township Council
Township of Piscataway
455 Hoes Lane
Piscataway, NJ 08854

Submitted by:

Philip Schaenman, President
TriData Division, System Planning Corporation
3601 Wilson Boulevard
Arlington, VA 22201
(703) 351-8300
pschaenman@sysplan.com

February 2012

Table of Contents

ACKNOWLEDGMENTS	1
I. INTRODUCTION.....	3
Scope.....	3
Methodology.....	3
II. ANALYSIS OF CURRENT FIRE, EMERGENCY MEDICAL SERVICES, AND SPECIAL OPERATIONS	5
Township of Piscataway Growth.....	5
Office of the Mayor	5
Overall Fire Protection Organization.....	6
District Funding	12
Fire Department Organizational Cultures.....	14
Emergency Medical Services.....	18
The Fire Service EMS.....	24
III. POPULATION, DEMAND, RESPONSE TIME, AND STATION LOCATION ANALYSIS	32
Population and Development.....	32
Response Times	37
Workload Analysis	43
Station Location Analysis.....	45
IV. VOLUNTEER RECRUITMENT AND RETENTION	49
V. FINANCING THE CURRENT SYSTEM.....	51
Insurance and Risk Management.....	51
Water Service Charges.....	53
Fiscal Analysis and Options	54
Summary.....	58
VI. FUTURE ALTERNATIVES FOR SERVICE IMPROVEMENT	59
Objective 1: Identify Options for Fire and Emergency Services Delivery.....	59
Objective 2: Identify Critical Issues to be Resolved.....	61
Objective 3: Develop Implementation Plan and Recommendations	61

ACKNOWLEDGMENTS

We wish to thank the members of the Piscataway Fire & Emergency Medical Services, city and department officials, and other contributors that provided valuable insight for this study. They not only provided information and welcomed our visits to their areas, but also interacted in a helpful manner with us throughout the study.

Following are the individuals who provided their assistance during the project.

Town Administration

Brian C. Wahler	Mayor
Lyn A. Evers	Township Administrator
James Clarkin	Township Attorney
Michele Lombardi	Councilperson
Gabrielle Cahill	Councilperson
Mark Hardenburg	Councilperson
Dawn Corcoran Gardella	Town Planner
Paul Snyder	Director, Office of Emergency Management/Chief Possumtown Fire Company
Richard Ivone	Police Chief
Kenneth Blair	Police Captain
Phil Zmuda	Police Sergeant/Dispatch Director
Amy Bauman	Director of Aging
Jackie Revolinsky	Mayor's Office

Piscataway Fire & Emergency Medical Services

Ed McDermott	Chief, North Stelton Fire Company
Andrew Marucci	Chief, River Road Rescue
Donna Racine	President, River Road Rescue
John Smolko	Chief, River Road Fire Company
Michael Abraham	President, River Road Fire Company
Brian Agnew	Fire Commissioner, District 2
Daryl Henry	Chief, Holmes Marshall Fire Company
Jeff Cooper	Lieutenant, Holmes Marshall Fire Company
Robert Burns	Captain, Holmes Marshall Fire Company
Ben Presley	Vice President, Holmes Marshall Fire Company
Tony Bratton	President, Arbor Hose Fire Company

Joseph Decker	Arbor Hose Fire Company and District 3 Fire Commissioner
Anthony Fritz	Chief, Arbor Hose Fire Company
Eric Martin	Arbor Hose Fire Company
Joe Rosenberg	Chief, Arbor Rescue
Susan Grimando	Arbor Rescue
Gary Frank	Fire Commissioner, District 4
Karen Light	Fire Commissioner, District 4
William Lemire	Chief, New Market Fire Company
Nick Lombardi	Fire Commissioner, New Market Fire Company
David Hough	President, Holmes Marshall Fire Company
Don Florek	Fire Commissioner, District 2

Robert Wood Johnson Hospital EMS

Louis Sasso	Director
-------------	----------

Rutgers University EMS

William Scott	Chief
William Jackson	Captain

Although we received valuable input from a variety of sources, the findings and recommendations contained in this report are entirely those of the TriData project team. Principal members of the team and their areas of responsibility are shown below.

TriData Staff

Philip Schaanman	Corporate Oversight
Paul Flippin	Project Manager, Fire Operations, Organization and Management
Joseph Foglio	Fire Operations, Recruitment and Retention, Fiscal Analysis
Markus Weisner	Risk and Demand, Station Location Analysis
Glenn Luedtke	EMS and Rescue Squads
Patrick Simpson	Summary
Maria Argabright	Production Coordinator and Project Support
Alexis Bobrik	Project Support

I. INTRODUCTION

The Township of Piscataway requested the assistance of a professional fire protection consulting firm to provide an independent third-party analysis of:

- The Township's current fire protection system and current needs.
- Changes needed to create a more cost-effective, safe and efficient governing and operating structure for fire protection in the Township, including consideration of starting with a clean slate
- Cost reductions possible while enhancing operating efficiency and effectiveness
- How the Township can optimize and improve the allocation and utilization of staffing, without reducing personnel safety and the service delivery to the residents.

Piscataway Township selected for this study TriData, an internationally recognized consulting firm and a division of System Planning Corporation located in Arlington, Virginia. TriData has completed over 190 studies of this type throughout the U.S. and Canada.

Scope

The study included fire protection services for the entire Township, which encompasses four fire districts: District 1, New Market; District 2, River Road; District 3, Arbor Hose; and District 4, North Stelton.

The scope of the study also included an evaluation of emergency medical services (EMS) in the Township, and the rescue squads in all four districts that deliver those services.

The conclusion of the study was that consolidation would indeed increase efficiency and be beneficial to citizens served by the fire districts.

Methodology

The project began with a kickoff meeting to confirm goals and objectives, validate the program plan, finalize a timeline, review the expectations to validate stakeholder understanding and concurrence, and review background information requirements. After reviewing the background information, a three-day site visit, comprised of a series of intensive meetings, was made early in the project. The TriData team met with fire services officials, including the Boards of Commissioners for all four districts, line officers, career employees, and other personnel to discuss current operations, resources, and ramifications of the proposed changes to current operations. The team visited fire stations and held informal discussions with some firefighters and officers, and toured the service areas to better understand the geography, risks present, and road system.

Following the initial meetings and field observations, the team met with the Township's designated project contact to summarize and triage the issues to be considered in depth and to identify any further needs. Another site visit was made several months later to clarify needs and bring the stakeholders together to discuss progress.

The next step was analysis of fire services operations to determine the level of service provided by each department. The project staff reviewed operating procedures and interviewed firefighters, officers, Township officials and other interested parties. The team considered compliance with required procedures (e.g., "Two-In/Two-Out") and standard industry practices to determine whether the district's and individual companies' own policies and SOPs were being followed and whether they made sense. Additionally, training, volunteer recruitment and retention, volunteer staffing patterns, and response times were evaluated. The final phase was to examine and analyze the Township's EMS system and the rescue squads.

II. ANALYSIS OF CURRENT FIRE, EMERGENCY MEDICAL SERVICES, AND SPECIAL OPERATIONS

This chapter addresses the management and organization of the four fire districts and six fire companies in the Township of Piscataway, including strategies for the future. It also reviews the city government structure which directly affects the organizational structure and delivery of fire protection for the Township.

Township of Piscataway Growth

Those interviewed from Township government included the Mayor, Township Attorney, Director of the Office of Emergency Management, Township Planner, and two Councilpersons, both of whom are on the Public Safety Committee, and one of whom is the Chair of that committee. An additional Councilperson could not attend. Unlike many areas of the country, the Township of Piscataway is experiencing steady growth in its population, which currently numbers 56,000. At the time of our visit, 150 single family homes and three apartment/condo projects under construction will add a total of 869 residential units to the Township's inventory, and another 2000-3000 population. .

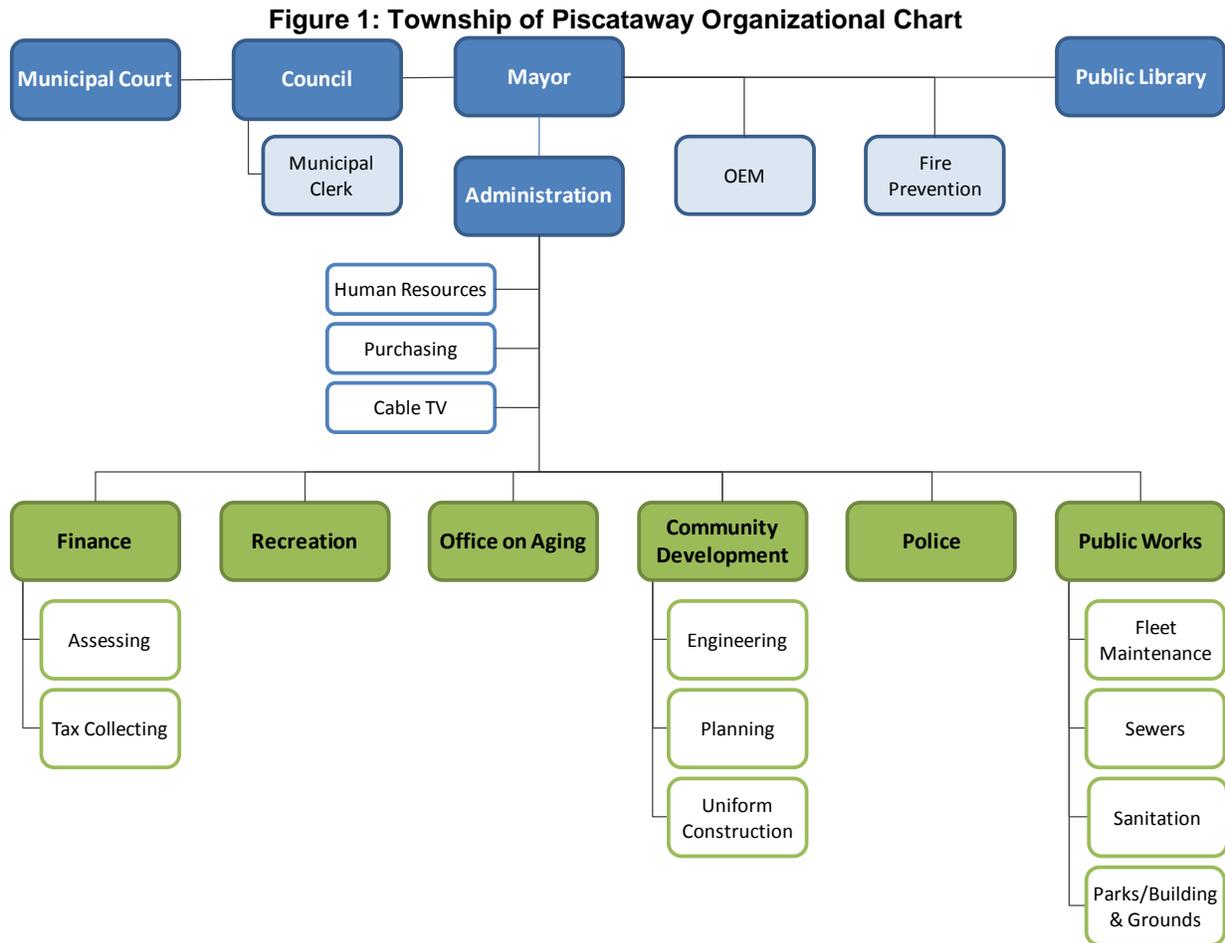
In addition, Rutgers University is adding residential capacity for an additional 2,000 students. Included in the current population is a senior citizen complex with 150 units, and there is currently discussion regarding possible construction of a nursing home facility. Seniors currently represent 9% of the population of Piscataway. Because of the business and industrial presence and that of Rutgers University, it is estimated that the Township's population doubles during weekday daytime hours. Given these projections, it is clear that the need for EMS services will experience a marked increase over the next several years and well into the future.

Office of the Mayor

The Township of Piscataway has a strong mayor form of government. The mayor's office and his Township Administrator are responsible for the day to day administrative and executive functions of government.

The Mayor is very hands-on, and with regard to fire protection for the Township wants to transition into a more codified and unified municipal wide fire service. The Mayor and his executive staff have taken a strong and justifiable position that clearly favors a stronger, more consolidated, unified fire district. This position is predicated on its legal responsibility and potential liability issues surrounding fire protection for the entirety of the Township.

Although the Township has a strong mayor form of government the position has no executive power to speak of with regards to the respective fire district budgets. It should also be noted that within the following organizational chart there is no formal governmental entity or connection to fire protection or for that matter to an Office of Public Safety within the Township and thereby within the structure of government.



Overall Fire Protection Organization

The Township of Piscataway fire protection is an amalgam of four different fire districts and six different fire companies. Each volunteer fire district is bound by the authority of the elected chief and fire commissioners of their respective districts. There is no centralized volunteer chief or governing body that is representative of the four districts

The number of responses generated by each of the districts is generally similar with the exception of North Stelton, which respond to more EMS calls than any of the other districts.

Districts – All four districts are volunteer departments. These fire district entities are supposed to operate in combination for the common good, but for the most part this is a fractured system where each organization prides itself on its individuality, and acts in its own best interest.

This is understandable in one sense, because each district has a vested interest in protecting its traditions, its turf and its pride of providing service to their respective districts. It is however shortsighted with respect to serving the entire Township.

Rutgers University – A major factor in Piscataway is Rutgers University (RU). It occupies a huge swath of the southern township. Its students impact the fire service in a number of ways. They provide a source for volunteer fire company recruitment but also generate call volume for those same companies. RU being a state university does not pay any taxes to Piscataway. It appears that all the fire companies in the Township have a good relationship with the university and vice-versa.

Lack of Central Command – Currently there is no unified central command for the greater Piscataway Township area. While all of the four districts and six fire departments are theoretically under the umbrella of the Township and the Mayor, the chasm between all of the entities could not be greater. There are six separate chiefs for six separate companies and 20 elected fire commissioners (five per district) for four separate districts. There is no overall centralized administrative body that truly controls fire protection in the entire city. The Public Safety Director in theory is the Mayor. He ostensibly acts as the authority for oversight of the four districts. However in actuality according to vague nature of the wording in the ordinance governing this area, he has very limited powers over the fire districts, the volunteer chiefs, the fire commissioners or their respective budgets. His power as Public Safety Director is based solely on this slightly amorphous ordinance that reads:

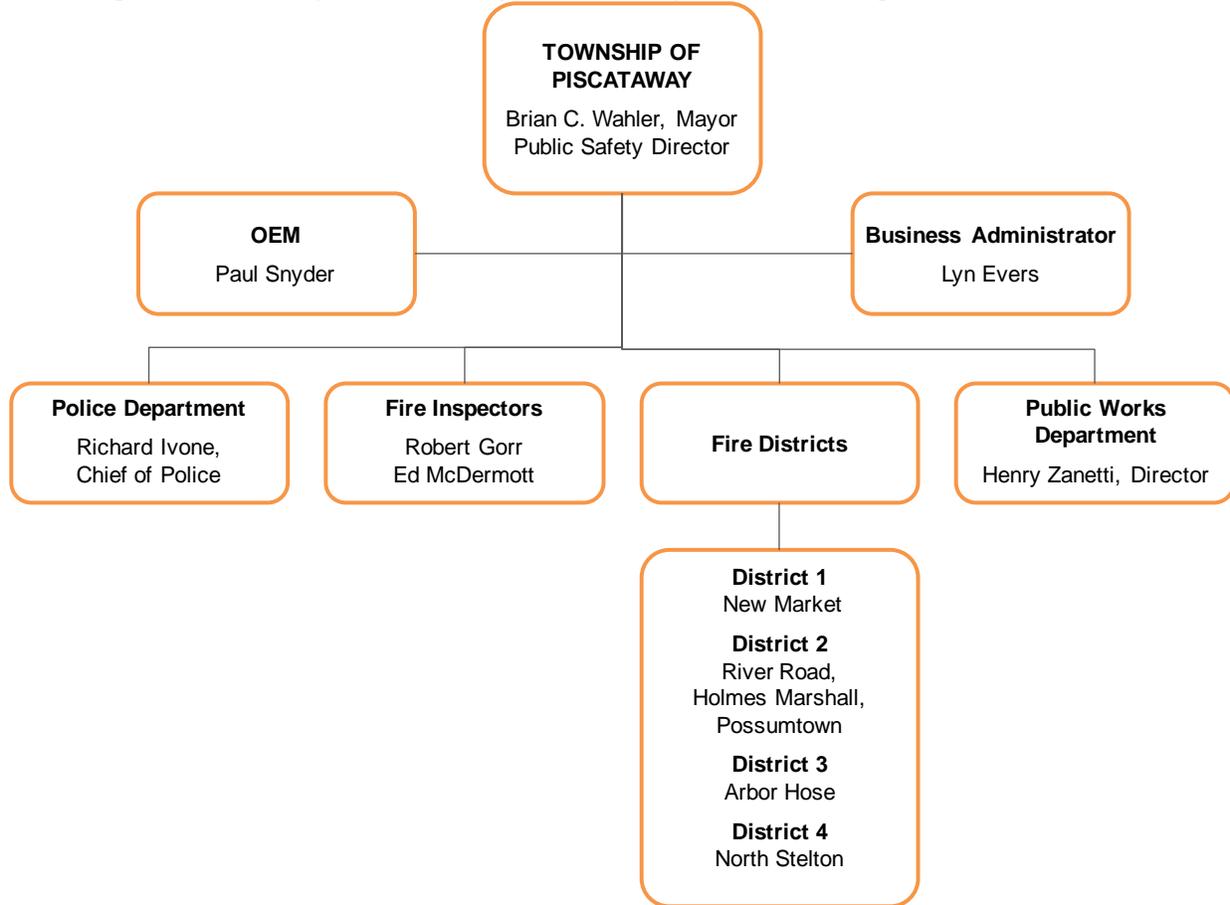
2-11 Department of Public Safety. [Amended 12-20-90 by Ord. No. 90-43]

2-11.1 *Department of Public Safety.* There shall be a department of public safety, the head of which shall be the director of public safety. The department shall include the divisions of fire, police and fire prevention and the office of emergency management.

Administratively because of the language in the ordinance, it is unclear exactly who “the director” actually is within the Township law. The Mayor has chosen to interpret the ordinance that he is “the director”, and has created an organizational structure including an office of emergency management that reports directly to him. Historically since the 1970’s, it also seems that this ordinance has been interpreted to be a position the Mayor inherently fills. This is quite understandable and perhaps quite necessary because the fractured nature of fire protection in the Township needs codification. Legally however the Mayor has tenuous, at best, operational authority over the four districts and their respective six chiefs and twenty commissioners. In practice this authority constantly comes to the fore operationally and administratively whenever any issue comes about regarding the districts’ chain of command or control of finances. Also when there is any emergency fire call, the whole question of who is in command, and the

structure of the Incident Command System (ICS) resurfaces. Figure 2 shows the ostensive organizational structure of public safety in the Township.¹

Figure 2: Township of Piscataway Public Safety Theoretical Organizational Structure



Equally tenuous and unclear is the relationship between the Office of Emergency Management (OEM) and public safety, particularly fire. The director of OEM (who is also the chief of the Possumtown Fire Company) is connected to the Office of the Mayor. This is not unusual at all. Many jurisdictions have this arrangement. However what is unusual is the OEM director being the Incident Commander (IC) at major fire incidents. That function is generally relegated to the chief fire officer of a department. Rarely if ever would a director of OEM respond to a fire scene. This is not, in most government structures, that particular position’s role. An OEM traditionally oversees disaster related preparedness, mitigation and emergency response of *all* public safety organizations in a given jurisdiction, and this function was not at all clear in the Township structure. It seems to be an effort to create some form of oversight over the fire

¹ It is important to note that a formal organizational chart for public safety did not exist prior to our request, and this chart was formulated as a result.

service by any means available within an undefined government structure. Curiously there is no indication of the fire districts' hierarchy in the organizational chart (shown above).

Recommendation 1: The Township of Piscataway should legislatively define and formalize the Office of Public Safety and the position of the Public Safety Director as well as the Office of Emergency Management within the Township governmental structure. These positions should be more clearly defined and codified to reflect their relationship and powers with regards to fire protection and EMS service provision. With regard to the Office of Emergency Management this agency should have a clearer definition of its relationship and powers for all public safety agencies in the Township. Currently the links to those particular services are vague and fully open to misinterpretation, misuse and bastardization.

Organizational Flaw – The fact that there is no centralized fire protection system under the aegis of one chief in a municipality of this size and with its incumbent risks cannot be considered a best practice. More importantly, it is unsafe for firefighters in the system, as well as for the citizens the fire departments protect when the command structure is unclear, and responses not made by the closest units. Undoubtedly, there will have to be significant change on all ends of the stakeholder spectrum to facilitate any form of meaningful transition.

At the very least the four volunteer districts should be represented as a unified body under one chief who can act as the definitive unified leader of the collective district's concerns and issues, as well as unifying command issues, standards of coverage, volunteer response and company staffing, budgetary oversight and accountability, and standardized professional standards.

Mutual Aid – There are mutual aid agreements between the volunteer districts, but they seem to be more a result of mutual survival agreements to maintain the status quo, and the protocols are often not followed or followed on each individual district's whim and selective decision at the time of a call. Virtually all of the districts create their own mutual aid protocols based on their preference of what fire district they deem to be the most professional or friendly in meeting their subjective standards.

Some districts based on their stated procedures for mutual aid use companies outside of the Township borders as mutual aid resources bypassing established dispatch protocols. This is rooted on a perceived, and in some cases perhaps justified, feeling that some companies in the Township lack professionalism, or on downright dislike of involved personalities. There are no township-wide standards, practices or procedures to emulate and none of the districts truly train together to reach any kind of continuity or accountability. Part of this is due to the fact that many of the fire district/company personnel cannot simply stand to be around each other.

Township Rights – The Township of Piscataway has the legal responsibility to ensure that public safety is maintained for all of its citizens regardless of the fire district they live in. This is one of the basic premises of local government authority and should not be abridged in order to appease any single group or fire district. Equally, a township the size of Piscataway,

with its inherent risks, burgeoning development and relatively large population (that rivals small to medium cities in size) needs to have one fire director for the entire Township with the inherent powers that enable that person to determine the level and type of service that will be provided to the public and combine the currently disparate districts.

The project team feels that a newly consolidated, more accountable form of fire protection is what the Township of Piscataway will need to protect its citizens in the ensuing years.

Recommendation 2: The Township of Piscataway fire service should be unified under the command of one central fire director. Each of the four volunteer districts should be represented by one volunteer fire chief who answers directly to the fire director. The current fire commissioner configuration should be streamlined into one central body of five commissioners that have oversight of the proposed fire director.

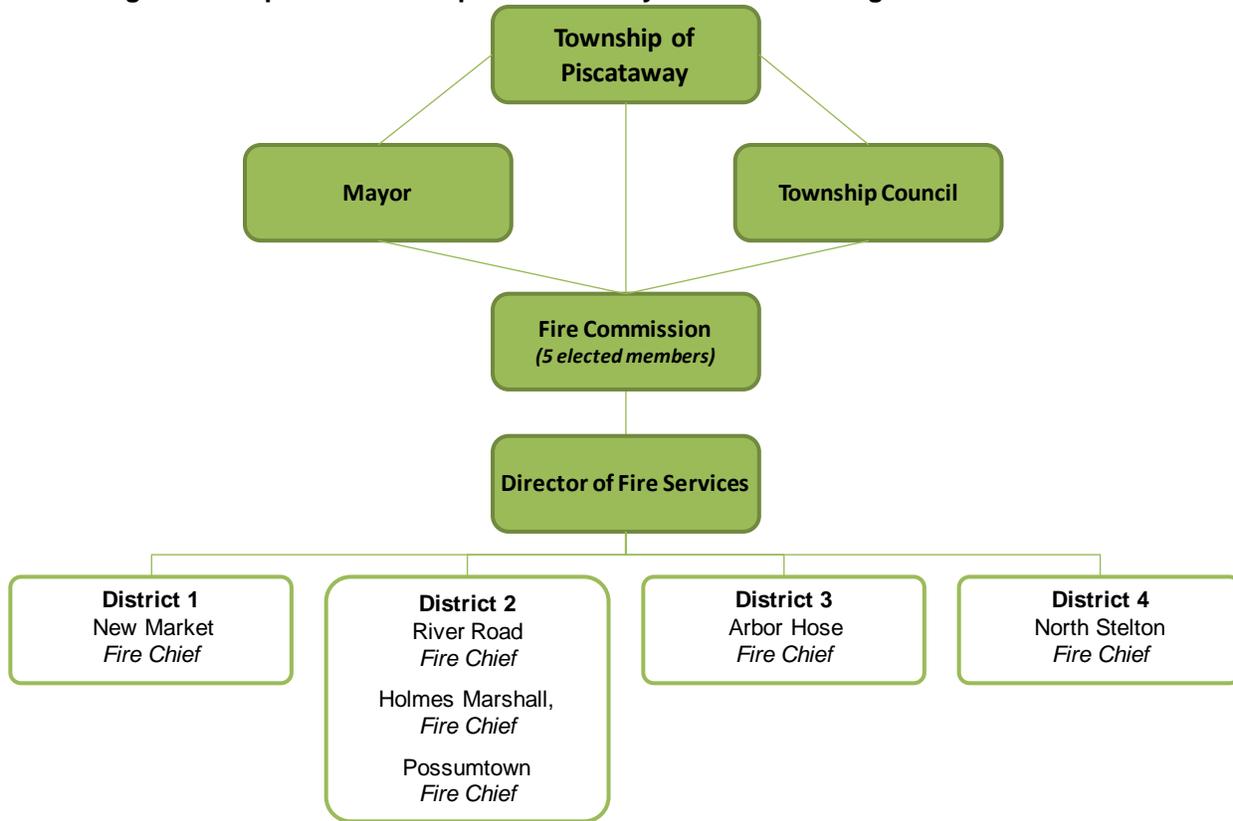
These changes are intended to result in the following benefits:

- Centralized fiscal accountability of all monies going into fire districts
- Standardized and unified ICS
- More equitable LOSAP system
- Administrative oversight and control of staffing
- Unified policy of citywide standardized fire protection coverage
- Establishment of a Joint Insurance Fund (JIF) for combined districts
- Centralized and Streamlined Fire Commission structure
- Unified mutual aid policy
- Equitable fire tax fund distribution
- Increased Township-wide budgetary efficiency
- A common mission

Recommended Reorganized Fire Service Structure – Figure 2 shows the proposed organizational structure of a centralized Township-wide fire service. The structure is based in part, on our understanding of the Faulkner Act NJ.SA 40: 69A-1, specifically 40:69A-36. Legislative Power, 40:69A-37.1. Mayoral Control of Administration, 40:69A-39. Executive Power and 40:69A-40. Mayoral Duties.

A separation of powers is crucial in this arrangement, particularly in the political landscape of the Township of Piscataway, for this structure to work. That is precisely why the proposed organizational structure is configured in this way. It emphasizes the need for checks and balances with regard to the oversight of and collaboration with all of the entities and stakeholders involved in this complex equation, with the Township becoming the ultimate beneficiary.

Figure 3: Proposed Township of Piscataway Fire Services Organizational Structure



The optimal solution then would involve the dissolution of the fire district(s) and creation of a unified Township of Piscataway Fire District/Volunteer Fire Department. There is a legal basis for such a change. N.J.S.A. 40A:14-91 states:

“Upon a written application therefor, of at least 5% of the registered voters...wherein the fire district is located, shall consider the dissolution of the fire district. Upon receipt of such an application the governing body of said municipality shall fix a time and place for the hearing thereon. The municipal clerk shall advertise the notice of hearing in a newspaper circulating in the county wherein the municipality is located...After the hearing the governing body of said municipality shall determine the question of the proposed dissolution.”

It is very important to note that the dissolution of the Fire Districts does not mean the dissolution of the fire companies. We fully understand the essence and traditions of the fire companies essentially need to remain intact. On the other hand, in some cases with regard to some of the loose standards employed, certain companies would have to meet a higher standard of operation. The key word here is standards. With the advent of a centralized system, standards of operating procedures and protocols will be centralized and made uniform, and all companies and members will have to meet and adhere to those standards. These new set of standards would be above and beyond the current requirements to be a volunteer firefighter, and would include a

standardized approach to township-wide protocols and standards of cover. We do feel however that in order for the realignment to be successful it is paramount that the fire companies retain their identities.

If the citizens and the governing body of the Township of Piscataway decide to dissolve the existing fire districts, N.J.S.A. 40A:14-70 provide the mechanism for creating a new district encompassing the exiting companies as well as reconfiguring and consolidating the current bloated fire commissioner system. It states in part:

“If the governing body decides that the designation of a fire district is appropriate, it, by ordinance, *shall designate a territorial location or locations for use of a fire district or fire districts and , by resolution provide for the election of a board of fire commissioners for the district... to consist of five persons, residents therein...*”*[italics and underline added]*

Another advantage to this option is that a new five person, consolidated Board of Commissioners will be able to draw from the strengths brought in by the members of each of the existing boards in forming a new truncated central board. It is reasonable to expect that a board would utilize all aspects of the existing qualities that the commissioners, if elected to the new system, would bring from their district experiences and will be capable of managing an effective and efficient fire service organization that provides a very high level of service to the citizens. It should be noted that N.J.S.A 40A:14-70 states that commission members should be elected, however in some jurisdictions members can be appointed by the mayor and/or council members.

District Funding

Each of the four districts is funded by a form of tax rates based on what are commonly known as “ratables” derived from property taxes from real estate in their respective geographical boundaries, coupled with individual fire company fundraising. There are high stakes in the distribution of monies. The bulk of the operational monies in each district come largely from those “ratables”. Thus the property encompassed in its fire district determines how any particular fire company will fare from a financial standpoint.

The districts fund all capital expenditures, operating budgets, fire commissioner salaries, administrative costs, property rental fees, utility costs, etc. Some districts fare much better than others based solely on the size and property tax base in their particular districts. This causes huge disparities in funding and consequently inequities. Of course, equally some districts are better at managing the monies they receive. This is vividly illustrated by the recent embezzlement scandal that ripped through one of the fire districts. A more centralized system with dedicated and consolidated oversight and scrutiny connected directly to township government would curtail if not eliminate such illegalities. It will also be more effective and efficient.

There is a marked disparity in the way the funding scheme is structured in the township. It creates systemic inefficiencies that fractures fire protection, scatters resources and create animosities. It creates unnecessary gluts of apparatus and resources. The decentralized system also creates a glut of 25 (paid) commissioners that quadruples the output of funding expenditures inefficiently and ineffectually. It essentially is not a duplication of services, but rather a quadrupling of services.

Budgets in the fire districts vary widely, and what budget information we were able to obtain from all four fire districts was basic and not very detailed (some were more detailed than others). They were also disjointed in some cases with pages missing and years missing. The forms forwarded to our project team in all cases were apparently a standard State of New Jersey form which must be submitted to the state for public disclosure. They provide very basic information on budget appropriations and no real line item details.

The following table shows the breakdown of funding for the four districts.²

Table 1: Fire District Budgets, 2008-2010

Yearly Adopted Budget Totals	District 1 New Market	District 2 River Road*	District 3 Arbor House	District 4 North Stelton
2008	\$856,365	\$993,320	Not Available	Not Available
2009	\$922,163	\$1,076,820	\$237,778	\$749,763
2010	\$911,200	\$1,153,320	\$237,778	\$767,263

*Funds must be split between three fire companies

New Market, because of their geographical location, benefits the most from the tax revenue (ratables) system as currently configured. It would not behoove them, at least on an individual basis, to consolidate the districts, but the long term benefits to the township as a whole could markedly improve with regard to overall emergency services. Moreover, District 1's proportional share of the ratables will probably increase in the coming years. Three of the four major new developments planned in the near future are located in District 1. District 1 has smartly and quite strategically placed a virtually unused fire station right next to a rail line (which limits response) to benefit from a significant corporate structural tax base, because of the proximity of this station to several corporate headquarters. This placement further increases their revenues.

This independent spirit is understandable, but is emblematic of the system in Piscataway as whole that precludes the good of the entire township. The concept, traditions and history for having autonomous volunteer districts is understood, but has become less justifiable in a growing township such as Piscataway.

² Totals do not include LOSAP assets.

The citizens and property owners have a right to have their taxes spent wisely for services provided. They are the ultimate arbiters, through their elected officials, to decide what type of service they want for their districts. Volunteer organizations (along with the township government) are going to have to decide to how far they want their individual autonomy to extend, and to what extent they want to be truly independent, and how that is affected by tax revenues. Their individual district's access to complicated tax formulas and funding should not be the final determining factor in their ability to fund operations without careful consideration of its impact on *township-wide* fire services.

Fire Department Organizational Cultures

Organizational culture refers to the values, beliefs, and traditions shared by the members of an organization. Culture has a profound impact on organizational performance as it guides everyday practices and behaviors. These practices and behaviors may or may not be in harmony with the stated vision of an organization.

In the fire service, understanding and managing an organization's culture is key to promoting and reinforcing positive team behaviors, and addressing obstacles to individual fulfillment and performance.

The organizational cultures of the various factions of the four districts and the six fire protection companies in Piscataway have to be broken down into six profiles emblematic of each company. The nature of each organization's cultural atmosphere is in some respects interconnected and overlapping because of their long common history in the township going back decades. In many other respects each individual organization's internal culture is taken for granted within the organization and internally ingrained. Examples can be seen again and again in the everyday language and behaviors of the members of each organization that affect day to day interactions between various stakeholders, whether on the fireground or in township negotiations, legal interpretations, internecine district conflicts or just plain individual company philosophy and persona. Each organization is intent upon remaining internally focused and is agenda driven first and foremost.

One thing is clear within the overall organizational culture of all parties involved: there is a continuous battle for which group will be the dominant force in deciding how fire service will be delivered for the city.

It is within this charged framework that negotiations must occur to make the township's fire protection less fractured and more whole. Currently, however, volunteerism is down and recruitment and retention is a problem, which make the stakes for survival much higher for the volunteer organizations.

The organizational culture of each of the four volunteer districts and six volunteer companies is steeped in tradition. Volunteers have been a tremendous benefit to the township for many decades. Each has a long record of service dating back as far as 100 years in some cases. Collectively, they have provided invaluable and reliable fire service to their respective communities during that time. Equally, each has an independent spirit that has served their organizations and districts well. The districts have similar yet distinct histories and organizational cultures that will be examined separately. These individual and separate cultures will have a great effect on the outcomes of whether this will ever be a unified fire service. Many of the companies and their members see the need for change, others merely want to maintain the status quo or strengthen their positions by simply enveloping neighboring districts. Ultimately it should be up to the citizens of Piscataway as to the kind of fire service they desire for the good of their community.

District 1: New Market Fire Company – New Market Fire Company (NMFC) has a tradition dating back to 1908, and is the oldest fire company in the township. New Market has an air and persona that they are the “best” and most “professional” of all the companies in Piscataway, which, often ruffles feathers with everyone from their sister companies to the mayor and council. It also often creates a palpable aura of arrogance that can taint any discussion about complete township emergency fire protection. It is however obvious that NMFC is committed to providing the very best service to its district.

They are fiercely independent, and unapologetic about the way they do business and their autonomy as a fire company. Their standards are high, and they are quite particular about whom they allow into their organization. They do extensive background checks and this is a good practice. They are also the best-off company in the township. As stated earlier this is largely due to their location within the township and the heavy volume of ratables within their particular district.

New Market also appears to be one of the best managed districts. The NMFC fire chief prides himself on his ability to foster accountability in his organization. The availability of the higher funding levels that NMFC receives makes this easier than perhaps for some of the other districts, but it certainly does not excuse some of the alleged and real mismanagement of funds that occurs in those other districts.

NMFC operates with 10 apparatus; 3 engines, 1 ladder, 2 rescues, 1 brush truck, 2 rescues and 1 chief car unit and responded to 2,769 total calls in 2010 and through 2011 they have responded to 348 calls, according to their website.

District 2: River Road Fire Company/Holmes Marshall Fire Company/Possumtown Fire Company – District 2 is composed of three separate fire companies, and their district ratables must be divided equally amongst the three. Each company has a distinct organizational culture of its own.

River Road Fire Company: River Road Fire Company (RRFC) has been in existence since 1928. It gets its name because it is the closest company to River Road and to the Raritan River, an area which is prone to flooding. It is more suburban than urban in nature. There is a real or perceived pecking order in the relationships between the three companies. RRFC was often cited as being the perceived head of that order. RRFC however seems to do its best not to have ownership of that reputation. It is a proud company steeped in tradition. Having been the first company to be part of District 2 after splitting off from NMFC, they do emphasize that they were the first and oldest company in the district. Being the second closest company to Rutgers University they have a good relationship with the campus and respond to calls on campus on a fairly regular basis. They also rely on students from the campus for their recruitment efforts.

There is a degree of friction between RRFC and their two sister companies in District 2 that goes years back. The three are in competition for the same funds and each feels there are discrepancies in the distribution of funding. Hence the long tradition which characterizes RRFC is colored by its relationship with its two sister companies.

The RRFC station house (like all of the station houses in this district) is woven into the neighborhood in which it resides and obviously is a part of the community. No small part of its revenues comes from hall rentals and community based activities. It is well kept.

RRFC operates with 5 apparatus: 2 engines, a ladder and a rescue and responded to 292 calls in 2009 and 181 calls in 2010.

Holmes Marshall Fire Company: Holmes Marshall Fire Company (HMFC) is the youngest of the fire companies in the district, formed in 1954. Their website states that they were formed out of concern for fires occurring in their community that had slow response from surrounding fire companies. What is not stated is that surrounding companies would slowly respond or not respond at all because the neighborhood where HMFC is located is predominantly African-American. For obvious reasons this factor in their formation is a driving force in the identity and organizational culture of this fire company. Another important factor in HMFC's development is a fire the company's firehouse experienced in 2008. The vast majority of the company's equipment and apparatus was damaged. They have been in a rebuilding mode ever since, but have survived quite well with a rebuilt firehouse and new equipment. The majority of HMFC's members are African-American, although they have Caucasian members as well (one of the Executive board members for instance). HMFC is an integral fixture in the largely residential community where they reside, and are proud of the services they provide, and the traditions they represent.

Being the closet company to Rutgers University they respond to the majority of the calls on campus.

HMFC runs with 2 engines, 1 rescue and 1 chief's unit. To date we have not received the number of calls they responded to in 2010.

Possumtown Fire Company: Possumtown Fire Company (PFC) was founded in 1948. It was formed as a result of being in an isolated part of town and slow response times from then existing fire companies. The neighborhood and community in which it is located has a close knit residential feel, and the firehouse fits right in. It is a small company, and has an addition to house the ladder/quint that was built with the help of Quakers. This is a bedroom community fire company which has seen some expansion and development in recent years in certain sections of its response area. Membership and recruitment and retention have been a struggle.

The Chief of PFC is also the President of the PFC board, a Fire Commissioner for PFC and oversees the Office of Emergency Management for the Township of Piscataway. We found this to be a curious, ill defined relationship with regard to township governmental structure, and a possible conflict of interest. However as a result of this arrangement PFC has a more pragmatic view of the township-wide concept of fire and EMS protection.

PFC operates with 3 apparatus: 1 engine, 1 ladder/quint and rescue/emergency response vehicle. There is some concern about surrounding companies' reluctance to use PFC's quint. The contention is that surrounding companies do not understand the proper use of a quint and its capabilities as a pumper or a ladder. We were also unable to determine the number of calls PFC responded to in 2010, due to lack of information.

District 3: Arbor Hose Fire Company – Arbor Hose Fire Company (AHFB) was established in 1921. AHFB is probably the most passionate and feisty company in the township. They are an aggressive fire company which is good in some respects and reckless in others. They are certainly dedicated, and proudly consider themselves to be the “bad boys” company. That dedication sometimes translates into poor firefighting practices. For instance the chief of the department is the nozzle man on many calls, which is not a sound procedure in an incident command system. Much of these practices are sometimes forced on this company because in terms of ratables, they are the poorest district, and in terms of recruitment they have low membership and response staffing. One glaring result of being the lowest funded district is the number, condition and age of their portable radios. They only have 6 and according to their chief, they have no ability to communicate by radio to other districts.

Their relationship with their well-funded neighbor NMFC is quite poor. NMFC would like very much to merge and take over this district, and this position fuels much of the animosity between the two. They will not call for mutual aid assistance from their closest district (NMFC) and vice-versa. Their relationship with the remaining districts is quite good.

AHFC operates with two engines and no ladder. It ran 248 calls in 2010.

District 4: North Stelton Fire Company – The North Stelton Fire Company (NSFC) was organized in 1933. It is the only company in the township that runs fire and rescue/EMS combined services. NSFC is a well run operation and the only company that has a township-wide positive consensus amongst districts in terms of respect and cooperation. It seems to have good

relationship with all the companies across the board. Part of the reason for these solid relationships is that NSFC fire chief consciously works on fostering and nurturing these relationships. NSFC also has the most active female firefighter/EMT membership in the township companies. In terms of ratables they are the second highest funded company. While District 2 has a higher ratable fund, it must be divided between three companies.

NSFC provides EMS services for their respective district, but because many of the rescue squads in other districts cannot muster active members to staff units, NSFC often shoulders the EMS call volume township-wide. This is the source of an increased volume of calls outside of its normal volume which can lead to a significant burn-out factor for its members.

NSFC operates with 2 engines, 1 ladder, 1 brush truck, 2 BLS units and 2 rescue units. In 2011 they had 21 fire calls and 430 rescue squad calls.

Emergency Medical Services

There is a strong tradition in New Jersey of volunteerism in the provision of both Fire and Emergency Medical Services. In most cases, these tasks are accomplished by separate organizations, although some combine both functions under a single entity.

EMS Organization and Funding – Emergency Medical Services in Piscataway are provided by several entities. The primary providers are three volunteer Rescue Squads; North Stelton Rescue Squad, River Road Rescue Squad, and Arbor Rescue Squad. The North Stelton Rescue Squad is a part of the North Stelton Fire Department, while River Road EMS and Arbor EMS are independent organizations. All three organizations rely exclusively on volunteers to provide leadership for the organization and staffing of the ambulances.

The rescue squads are funded through several resources, including funds provided by the Township of Piscataway, funds from the Fire Districts, and donations from the public. Historically, EMS service has been provided by these organizations without charge to the patient. However within the last several months, one organization, River Road Rescue Squad, has initiated a charge for its services.

Because the rescue squads have difficulty providing staffing for their ambulances during the weekday hours, the Township of Piscataway has entered into a contract with the Robert Wood Johnson Hospital EMS Service (RWJEMS) to provide primary Basic Life Support ambulance response on weekdays between 6 a.m. and 6 p.m. RWJEMS is a full-time, professional service and is operational 24/7. In addition to its contractual obligation, the agency will respond to calls in Piscataway at other times when an ambulance is not available from the local rescue squad. This contract has been in place for approximately six years, and has recently been renewed for an additional five years. As a part of the agreement, RWJEMS does not bill residents of Piscataway for services above what insurance will pay.

Robert Wood Johnson also provides Advanced Life Support (ALS) response to the Township, however an analysis of this aspect of EMS in the Township was not included in the scope of this study

Additional BLS response is provided to the township by Rutgers University EMS. In addition to providing response to the Rutgers campus, RUEMS responds to calls within Piscataway on a mutual aid basis when other resources are not available. They are a full time, paid service and are available 24/7. There is no formal contract between the Township and RUEMS, and the latter charges patients for its services. The three Piscataway rescue squads respond to emergencies on the Rutgers University campus when RUEMS resources are not available, on a mutual aid basis.

Although the Fire Departments (with the exception of North Stelton) are not EMS providers, the organizations work together as needed on such incidents as vehicle accidents requiring extrication, lifting and moving heavy patients, and providing EMS standby resources at fire incidents.

In addition to the response of the EMS agencies, the officers of the Piscataway Police Department are routinely dispatched to EMS calls and often are first on the scene. Each police vehicle is equipped with a basic first aid kit and automated external defibrillator (AED). The police provide additional information to incoming EMS resources.

There is no central authority for EMS in Piscataway. The Director of the Office of Emergency Management has some responsibilities, as does the Mayor in his presumptive role as Director of Public Safety, however these do not provide for direct oversight of EMS administration or operations.

The Township of Piscataway provides a \$20,000 annual stipend to each of the three rescue squads, in addition to \$22,000 provided by the Fire Districts. The Mayor indicates that his responsibilities include those of Director of Public Safety, although how that responsibility relates to the rescue squads is less clear. Similarly, the OEM Director has some responsibilities with regard to Fire and Rescue, particularly when mutual aid responses are involved, however specific areas of responsibility do not appear to be clearly defined.

All agreed that the delivery of EMS to the citizens of Piscataway has been of growing concern over the past two years, and the recent decision of River Road Rescue Squad to begin charging for its services has brought the issue to the forefront. One councilperson indicated she was “shocked” at the decision, and there was general agreement that, in the light of the embezzlement issue at River Road, improved financial oversight is needed for all of the rescue squads.

EMS Medical Direction – Off-line Medical Direction for EMS is provided by Robert Wood Johnson Hospital through appointment of a Medical Director from their physician staff. BLS care is provided in accordance with standard operating procedures and protocols issued by the State of New Jersey.

EMS State of the Art – Intuitively, how a community should provide emergency medical service seems like an easy decision. Medical science and physician oversight should be abundant and provide the community with direction as to what investment is necessary. The community's choice of whether the service should be provided by a volunteer organization, municipal government, free-market competition, or a combination of these would determine the system's design.

On the surface, there should be little question on how to provide out of hospital emergency care. Unfortunately, the challenges of providing EMS have few scientifically based answers, and few validated best practices. Prior to 1966, EMS transportation systems were based on finding the patient and providing rapid transportation to a medical facility. There was no guarantee of services or level of care. In 1966, the National Academy of Sciences published its white paper, *Accidental Death and Disability: The Neglected Disease of Modern Society* that described the poor status of trauma care in this country. Concurrently, the re-discovery of cardiopulmonary resuscitation (CPR) and the demonstration projects on out-of-hospital cardiac resuscitation refocused our attention to the community as the ultimate cardiac care unit.

During the last 40 years, EMS has become an intimate partner in public safety and public health aspects of our communities. With its maturity, the medical and political communities have taken their stewardship responsibilities seriously by asking: What type of EMS services should EMS provide? What interventions make a difference in patient care outcomes? What are the most reasonable ways to fund the system? Textbooks, journals, news articles, and the media have abundant information on daring rescues and miraculous resuscitation performed by EMS providers. As a profession matures, and economic conditions change, communities are challenged to demonstrate the scientific validity of the system they have chosen. Unfortunately, medical science is just beginning to determine what EMS interventions reduce death and disability, and which interventions have not shown improved outcomes.

The Center for Disease Control reports that sudden cardiac arrest is the leading cause of death in the United States among people over 40 years old. Overall, of the 250,000 Americans who experience sudden cardiac arrest, only 7 percent are successfully resuscitated.

One of the most perplexing challenges that EMS continues to face is determining the exact importance of time. How fast do rescuers need to get there? Is the eight-minute response time guideline or standard a valid measure of services? Of this, we still have not determined an answer. Evidence indicates that rapid identification of cardiac arrest, early 911 notification, early CPR, and early defibrillation are the cornerstones of successful cardiac resuscitation. The

American Heart Association (AHA) reinforced these principals by espousing not only the need for rapid CPR, but emphasized the need for high-quality CPR as a tool to increase survivability. The AHA also notes that for every minute that CPR or defibrillation is delayed, there is a 7 percent decline in survival from cardiac arrest. While this simply explains one aspect of the need for rapid emergency care, other emergencies including: severe trouble breathing, severe bleeding, shock, and similar conditions depend on rapid response to increase patient survival.

Another aspect of EMS being questioned is the eight-minute response time for ambulance transportation. Since 2004, the EMS community began questioning the eight-minute response time standard espoused by several professional organizations. These questions include, accuracy, intervention intervals, determining what emergencies require rapid transport, and the need to respond smarter instead of faster. New evidence continues to question the use of time standards in all cases. While survival is affected by response time in some cases, scientific evidence is lacking in others. In conclusion, *the jury is still out* on response times. Evidence exists that rapid initiation of basic life saving skills does save lives. The eight-minute response time for EMS arrival must still be considered unproven, either positively or negatively.

Status of EMS in Piscataway – EMS practice varies across the volunteer rescue squads.

North Stelton Rescue Squad: The North Stelton Rescue Squad is the only one of the three squads that is part of a fire department. This arrangement has proven to be of great benefit, as the department has provided support to the rescue squad in terms of funding received through the Fire District, as well as the advantages of economies of scale related to purchasing of equipment and supplies, administrative support, etc. The arrangement is also the subject of some concern as to its legality under New Jersey law, as it is unclear whether rescue squads may receive financial support through the Fire Districts.

Members of North Stelton Rescue Squad are a part of the department's Length of Service Award Program (LOSAP), the only squad members of the three squads to enjoy this benefit. The squad has 20 active EMT's, and several fire personnel are cross-trained as EMT's, and provide staffing as needed. Volunteers are required to be on duty one night per week and one weekend per month. These duty crews are either in-station, or respond to the station from their homes, which are generally a short distance away.

Apparatus includes two ambulances, ages 6 and 16 years, and a specialty vehicle. In spite of their age, the vehicles have relatively low mileage and were clean and in apparent good working order at the time of our visit.

Like most volunteer rescue squads, the organization finds recruiting of new volunteers difficult, however they do benefit from the ability to recruit members from nearby Rutgers University, many of whom remain active throughout the year. During the period from September 1, 2010 through September 1, 2011, the squad responded to 848 incidents (the highest number of

responses of the three squads). This is about 2-3 calls per day. The unit was out of service or unable to respond only 11 times (the least of any of the three squads).

River Road Rescue Squad: The River Road Rescue Squad is housed in a small but well-kept facility separate from the River Road Fire Department. At the time of our visit, the squad was engaged in housing several victims of the flooding that struck the area during the previous week. The department has two ambulances; one built in 2002, and the second originally built in 1991 and remounted onto a new chassis in 2005. Officials indicated they spend approximately \$10,000 per year in repairs to the vehicles.

River Road Rescue responded to 779 calls for service during the aforementioned 12-month period, and was out of service or otherwise unable to respond on 42 occasions. The annual number of calls continues to trend upward each year. The squad currently has 30 active EMT's, many of whom are students, and experiences a turnover of approximately 5 volunteers per year. Duty crews are usually located in-station.

The squad is currently experiencing a severe financial crisis, which began with the embezzlement of between \$23,000 and \$40,000 by a former official. Voluntary donations have diminished greatly, attributable in part to the negative publicity surrounding the embezzlement scandal, with gross donations of only \$600 in the month prior to our visit. The department receives \$22,000 per year from the fire district and \$20,000 from the Township of Piscataway. With an annual budget of \$90,000, the squad has found it necessary to begin charging for service, in hopes that doing so will help them avoid bankruptcy. Because these charges have only recently been instituted, there has been no income received to date. It is unclear how long the rescue squad will be able to survive with its current revenue stream.

River Road Rescue Squad has informally discussed with River Road Fire Department the concept of merging, according to the Fire Chief and RRFD President, and the two organizations appear to have a positive relationship.

Arbor Rescue Squad: The Arbor Rescue Squad is located in a building which was built in the 1930's. A large part of the structure is devoted to a bingo hall, which provides the majority of funding for the squad. The building itself is showing its age, with flooring and carpeting soiled beyond cleaning, walls and ceilings in need of paint, and equipment and supplies crammed into every available space. The cleanest and neatest part of the building was the kitchen, which is regularly inspected by the health department due to its use in support of the bingo activities.

The squad's ambulances were not available for inspection during our visit, with one being on a call and the other out for routine maintenance. The vehicles include a 2004 Horton with approximately 32,000 miles and a 1995 Horton with approximately 63,000 miles. A third vehicle, formerly an ambulance, is a 1988 model now used as a specialty/resource vehicle.

There are currently 18 volunteers in the department, and the out-of-service record is the poorest among the three squads. The squad is scheduled to be out of service and unavailable during daytimes on Saturdays and Sundays, as well as every Monday night. Recent run statistics show the effect of the squad's staffing difficulties, with a steady decline in the number of responses, including 534 in 2008, 353 in 2009, and 223 in 2011 to date (the department could not provide numbers for 2010). According to dispatch records, the squad was out of service or failed to respond on 131 occasions in the 12 months prior to our visit. The Chief indicated there are currently 11 additional members undergoing EMT training, which he hopes will enable the squad to resume service on Sunday daytimes.

The effect of the bingo games on the ability of the squad to provide EMT staffing is controversial. One of the requirements for members is that they must work at least 50% of the bingo games each year. The Chief and Treasurer of the squad indicated that they do not follow this rule to the letter, and many exceptions are granted. At the same time, others indicated that the bingo requirement is a major impediment to the squad's ability to attract and/or retain members. In the recent past, several members from the New Market Fire Department joined the squad and obtained EMT training, but left shortly thereafter because of the bingo requirement.

In addition to funds supplied by the Township and the Fire District, the major source of funding for the squad is the bingo game. They also do a fund raising mailer once or twice per year, and receive additional funds from that source. Their officials estimate that their budget is \$100,000 to \$125,000 per year (one official indicated they "do not have a budget on paper").

Robert Wood Johnson EMS: RWJEMS is contracted by the Township to provide, at a minimum, one BLS ambulance to respond to EMS calls within the Township between the hours of 6 a.m. and 6 p.m., Monday through Friday. This ambulance is posted at the police station, and is staffed by a crew of two EMT's. A second ambulance is often stationed within the Township when available, at no additional cost. RWJEMS also provides coverage on holidays when volunteer squads may not be available. The agency does not provide specialty service (Haz/Mat teams, Extrication, Water Rescue, etc.), however their ambulances do provide standby service at fire incidents. As previously stated, the contract provides that RWJEMS will not bill residents of the Township beyond what is covered by insurance.

RWJEMS provides a good deal of continuing education to its employees, and has offered to include volunteer rescue squad members in these classes; however there has been little participation on the part of the volunteers. The organization also provides a medical director for the volunteer squads. The medical director, Dr. Merlin, recently left, and Dr. Eisenstein, Director of the Emergency Department at RWJ Hospital, is functioning as interim medical director until a permanent replacement is named.

Township officials, Fire Chiefs and Rescue Squad leaders interviewed were uniform in their praise of the service provided by RWJEMS. Responses are timely, personnel are professional in their abilities and conduct, and vehicles are reliable, clean and appropriately equipped. In addition to the contracted services, RWJ provides mutual aid service when additional EMS resources are needed. The organization appears to be on sound financial footing, and the contract with the Township was recently renewed for an additional five year period.

Rutgers University EMS: RUEMS primarily provides EMS service to students, faculty and staff at Rutgers University's campuses in and around Piscataway. At present, one ambulance is on duty 24/7, with a second staffed unit on weekends, and additional resources are deployed for special events both on- and off-campus. The department operates a total of five ambulances, which are on a 5-year replacement schedule.

Staffing is provided by three full-time EMT's and a per diem staff of 80, largely made up of students. All personnel are certified at the EMT level, and a minimum 1 ½ years of experience are required for employment. Applicants must successfully pass a 75 question exam, practical scenarios, and physical agility evaluation. Background checks are performed on all employees.

RUEMS responds to Piscataway when other resources are depleted or unavailable, as a mutual aid response. In 2010, there were 49 such responses, with an average response time (receipt of call to arrival on scene) of 8.72 minutes. In 2011 to date, there have been 20 responses, with an average response time of 7.91 minutes. RUEMS officials describe their relationship with the fire departments as excellent. There has been less interaction with the rescue squads, however they have held drills jointly with River Road Rescue Squad.

The Fire Service EMS

Relationship – Officials from North Stelton FD, River Road FD, Arbor Hose Company and New Market FD, along with officials from the Fire Districts, were interviewed regarding their relationships with the rescue squads.

The Fire Departments provide operational support to the Rescue Squads routinely for such things as auto extrication and lifting and moving bariatric patients, while the Rescue Squads provide support for personnel rehabilitation and EMS standby at fire incidents. In addition, the Arbor Fire Department has routinely donated equipment such as cooling fans, generators and blankets to the Arbor Rescue Squad. Arbor Rescue also serves the New Market Fire Department's district.

The relationship within North Stelton is unique to the area, since the rescue squad is actually part of the fire department. Their officials feel that the relationship is mutually complimentary, and works to the advantage of both organizations. The Fire Chief expressed the feeling that having the other squads become part of their neighboring fire services would represent an overall improvement to the EMS system in Piscataway.

Officials from the River Road Fire Department and Arbor Hose Company expressed agreement, and River Road FD and RS have had discussions regarding potential merger (although the President and Chief of River Road expressed preference for a single Township rescue squad configuration). It was made obvious, however, that with such a merger, the Fire Department would be the overall leadership entity, which could make merger negotiations difficult.

EMS Dispatch – Calls for EMS service are dispatched to the EMS agencies from a central Public Safety Answering Point (PSAP) located in and staffed by the Police Department. All dispatchers are trained in Emergency Medical Dispatch, and utilize standardized guide cards to determine the appropriate response and, when necessary, provide instructions to the caller until EMS resources arrive.

By law in New Jersey, all call-takers who handle EMS calls must be trained in Emergency Medical Dispatch (EMD), and Piscataway's personnel comply with this requirement. One to three dispatchers are on duty at one time, and while we were not able to observe the operation for a lengthy time, we noted that two of the three dispatch consoles had EMD guidecards available, and the Sergeant in charge of dispatch indicated that they are routinely used by the dispatchers.

The police dispatchers directly dispatch the volunteer rescue squads, while calls for RWJEMS are transferred to the RWJ dispatcher, who assigns their units. Although the Sergeant in charge indicates there are few complaints from the rescue squads, the squad officials interviewed were generally not complimentary toward the dispatchers.

One area of contention concerns the order of dispatch for EMS incidents. Police officers (who are trained first responders and whose vehicles are equipped with basic first aid supplies, oxygen and Automated Electronic Defibrillators (AED's) are routinely dispatched first, followed by dispatch of EMS resources. It was not possible to ascertain the amount of delay this caused for dispatch of EMS; however the police supervisor indicated it was "minimal". Rescue Squad officials interviewed felt that EMS should be dispatched first so that units could get on the road more quickly, while the police chief pointed out that his resources are already on the road and able to respond much more quickly.

Other issues raised by the squads involved the attitudes of some dispatchers and occasional failure to dispatch the nearest EMS resource to a call. They also stated that, in the event of a simultaneous police action and EMS call, the dispatchers always give precedence to the police action, regardless of which incident is most serious. RWJEMS and RUEMS did not indicate any issues with the police dispatchers.

Suggestions From The Participants – As a part of the interviews, each participant was asked “If you could do three things today that would improve EMS service in Piscataway, what would they be?”. Although the responses varied widely and somewhat predictably between the groups, several were mentioned by multiple participants. These included:

- Increase funding from the township to the rescue squads
- Provide incentives, such as a LOSAP program, for rescue squad volunteers
- Add part-time, paid personnel (employed either by the individual squads or by the township)
- Establish a paid EMS service or extend the current contract for 24/7 coverage
- Increase Township government support for recruiting efforts
- Have the two independent squads become part of their neighboring fire department
- Establish a single oversight organization for EMS (e.g. an EMS Commission similar to the Fire Commission)

Suggested Action Steps and Future Considerations – In evaluating the delivery of EMS to the citizens of Piscataway, one fact becomes increasingly clear; there currently is no Unified “EMS System” in the township. Three volunteer rescue squads provide service with varying degrees of success; one linked with a fire department and doing well, a second that is often unable to respond to calls because of lack of personnel, and a third struggling to avoid bankruptcy.

Except for a single dispatch point, there is no coordination between the three squads. Further, because they are unable to provide reliable service during the daytime, the Township has added a fourth provider to provide daytime coverage on a contractual basis. There is no single oversight entity to coordinate the efforts of these providers, no standardization of education past initial certification training, and no standardized, ongoing effort to review calls or monitor adherence to sound medical practices.

Recommendation 3: Establish an EMS authority or commission and hire a full-time, paid EMS Director with responsibility for oversight of the EMS System.

This entity should be established under the authority of the Township Government, and include representation from the EMS provider agencies involved. The Director should be a seasoned EMS administrator who can monitor performance of both individual providers and squads, coordinate continuing education activities, assist with recruiting efforts, and provide the Township Council and Mayor with periodic reports on system performance and suggestions for enhancement. This would also include a requirement that each squad submit financial reports indicating how public funds are being utilized (including funds provided by the Township, the

Fire Commission, and public donations) to ensure fiscal accountability and to help identify problems before they threaten the financial health of the squad.

Recommendation 4: Consider expansion of the current contract for Basic Life Support service to provide in-town response capability 24/7.

Because of a lack of data, it was not possible to determine fractal response times for EMS. However, there is obviously a wide variance between daytimes, when a staffed unit is able to respond instantly from a central location, and evenings/weekends, when volunteers may be responding from their station, from home to the station, or the nearest squad may be unable to respond due to lack of staffing. The chief advantage to expansion of the contract would be the normalization of response times regardless of time of day or day of week.

This could be accomplished in one of two ways:

1. One contract ambulance would be the primary responder, backed up by the volunteer squads who would respond to a subsequent simultaneous call.
2. The nearest volunteer squad would be assigned to the call and respond if available. In the event the squad is not able to respond due to being out of service or lack of personnel, the contract ambulance would respond.

In either case, the person making the call is assured of an EMS response within a reasonable amount of time. The current contractor indicated that they would easily be able to expand their service to a 24/7 commitment, and the University squad leaders also expressed willingness to participate in such an arrangement.

Recommendation 5: The two independent rescue squads should become a part of their respective fire departments.

Although it is not without its own problems, the North Stelton Rescue Squad is obviously benefiting from its location within the North Stelton Fire Department, both in terms of leadership and administrative resources, as well as financially and operationally. By integrating with the fire department, Arbor Rescue Squad and River Road Rescue Squad could take advantage of resources available through the Fire Districts, and benefit from the recruiting efforts of the fire department, which appear to far outpace those of the independent squads. In addition, a limited number of firefighters could be expected to participate in EMT training and help with staffing, while some of the EMT's may do likewise with fire training, resulting in improved operational capabilities for both.

In conversation, it appears that River Road has engaged in some preliminary discussions toward this end. Arbor Rescue, on the other hand, is shared by two Fire Districts and two fire departments (Arbor Hose and New Market Fire). Although once a part of Arbor Hose, the two entities split many years ago, and their stations are literally side by side. Nonetheless, both Arbor Hose and New Market have indicated an interest in discussing such a merger.

As with most mergers, the difficulty to be overcome in these cases is who is ultimately in charge. Concerns of the squads center around the possibility that they would be treated as “second class citizens” by both the fire department and the fire district. Although the fire department would almost certainly be the lead entity in either case, early discussions regarding representation on the organization’s Board of Directors and establishment of rescue officer positions, along with appropriate representation on the Fire Commission, could be helpful.

It must also be noted here that in a merger between Arbor Hose and Arbor Rescue, the latter would be in the stronger financial position due to its bingo game income. On the other hand, participation by fire department personnel may allow a relaxation of the participation requirement in the bingo games, and improve recruiting and retention for the squad.

Finally, in order to consider this option, it must be determined whether such mergers are permitted under New Jersey law. Although a number of volunteer departments in New Jersey are operating jointly (including North Stelton), it remains unclear whether current regulations truly permit this practice. A determination must be made regarding this question and, should it be determined that such a practice is NOT permitted, appropriate steps should be taken with the State Legislature to initiate the legislative process that will permit that regulation to be changed.

Recommendation 6: Hire EMTs on a part time or per diem basis.

This could be done one of two ways. The individual squads could hire part-time personnel, who would then become their employees, or the Township could hire part-time personnel, who would then become Township employees, to provide coverage when volunteers are not available. If this were to include coverage during weekday, daytime hours, partial funding could come from elimination of the current contracted day-time service. Otherwise, to provide staffing on nights and weekends, additional funding would be required.

Recommendation 7: Establish a purchasing consortium among the three rescue squads.

This could accomplish several goals. First, it would allow the departments to realize savings based on economies of scale. The consortium would put the purchase of supplies and equipment out to bid with major suppliers, and likely obtain more favorable pricing than by purchasing smaller amounts independently. This could be expanded to include equipment and even vehicles if the departments were willing to agree on a basic vehicle design and coordinate purchases so that they could order more than one vehicle at a time.

The second goal would be improved relations and cooperation between the squads, which could have the effect of improving operational relations through sharing of personnel, joint training, and other activities where cooperation would be advantageous.

Recommendation 8: Consolidate the three rescue squads into a single, Township-wide squad, responding from one central location.

This delivery model would be based on the reorganization of the squads into a single Piscataway EMS agency, which would remain a volunteer organization. Considerable cost reduction would be realized by maintaining only one physical facility, a single administrative structure, and the pooling of volunteer personnel resources. Uniform training, improved staffing, and better supervision are all likely consequences of establishing a single rescue squad.

Recommendation 9: Establish a full-time, paid EMS agency under Township Government.

In this scenario, the Township would take over all responsibility for the provision of Basic Life Support Ambulance service to the citizens of the Township. EMT's would become employees of the Township. This is likely the most expensive alternative system design, however it would give the Township complete control over the provision of EMS to its citizens. Partial financing would come from discontinuance of the current contract for daytime service. The existing volunteer rescue squads could, at their option, continue to provide back-up service to the Township squad, or the current contract could be modified to have the contractor fill this role.

Recommendation 10: Perform complete background checks on all EMS providers. EMS providers are in a position of trust in the community. We allow them into our homes without question, permit them to perform extensive physical examinations, and rely on them to act at all times professionally and in the best interest of the patient. It is incumbent on every EMS agency to ensure that the EMT's who respond to our calls for help are reliable, trustworthy, and honest.

Currently, according to those interviewed, none of the township's rescue squads performs adequate background checks on the individuals who join their ranks. This, in our view, is a disaster waiting to happen. It would only take one "bad apple" to poison the reputation that the Township and the rescue squads enjoy, causing a crisis of confidence throughout the community regarding the motives of every subsequent EMS provider who comes to their aid, and both the squad's and the Township's commitment to due diligence in ensuring that those whom they send to our aid are worthy of their trust.

This need not be an onerous process. It would include development of a standardized membership application containing information necessary to perform a background check. Individuals could be required to produce a copy of their driving record as a part of the application. Two on-line resources, the Health Integrity and Protection Data Bank (HIPDB) and the National Practitioner Data Bank (NPDB) can be utilized to determine if the individual has had any problems related to the provision of health care.

The Chief of Police indicated his willingness to assist the rescue squads in performing background checks, although individuals interviewed from the rescue squads indicated they have sought his help with this in the past without success. This should be further explored to ensure that the people who render EMS care are of appropriate moral character.

Recommendation 11: Establish a uniform policy among the rescue squads regarding charging for service. At present whether you are billed, and the amount, depends on which ambulance agency responds.

The recent decision of River Road Rescue Squad to begin charging for service came as a surprise to almost everyone interviewed (one individual said she was “shocked” by the move). Clearly having one squad charging while the others do not charge will be confusing to the public. While one of the other squads indicated they did not want to begin charging because of the potential for negative publicity, experience in other areas where volunteer squads are charging for service has not borne this out. Generally, citizens understand the need for funds to sustain a rescue squad operation. Carefully explaining that by not charging the squads are literally leaving insurance dollars on the table is readily understood and supported in most communities. At the same time, there needs to be a uniform policy among the providers regarding what to do when the individual is not insured, or when insurance does not cover all or part of the bill. Most communities have developed a policy for abatement of these charges that is consistent with Medicare and Medicaid policy, and the same could be done here.

It is important that ambulance billing be done by people who are familiar with the process and how to maximize income from insurance claims. This is NOT an area that a squad, or even the Township government, should enter without having the proper expertise doing the actual billing. If all of the squads were to adopt a policy to charge for service, a single billing agency could be contracted to provide this service, relieving the squads of the administrative burden and maximizing their income. Although there would obviously be a charge for this service, the additional income to be realized as a result of billing expertise would likely outweigh the cost of the service itself.

Recommendation 12: Expand membership benefits for rescue squad volunteers.

First and foremost, rescue squad volunteers should be included in the Length of Service Award Program (LOSAP), as are their counterparts in the fire service. Additional benefits, such as discounts at health clubs, relief on certain municipal fees, per-call stipends to help offset the cost of fuel, or other benefits should be researched and, wherever financially feasible, implemented. The National Volunteer Fire Council can be of help in identifying potential benefits.

In developing this report, we have attempted to consider all of the input from the individuals representing the Township, fire service, and EMS agencies. In many cases this input differed greatly between disciplines and individuals, but it became universally clear that the provision of Basic Life Support ambulance service to the citizens of and visitors to Piscataway is at a crossroads. Issues of dwindling interest in volunteering and the financial concerns brought about by the current economic climate nationally weigh heavily on the ability of the current system design to fulfill its mission.

Although the interviewees often differed regarding system designs, there was strong sentiment toward maintaining a role for the volunteer rescue squads. At the same time, participants also recognize the need for greater accountability among the squads to ensure their continued ability to function, and more importantly to ensure that they are able to fulfill their mission as the primary BLS provider for the township. There were many thoughts and ideas regarding changes that could help maintain a volunteer system, along with those that advocated for a system based primarily on expansion of the current weekday/daytime contract service.

With these things in mind, we have attempted to summarize our discussions with the individuals representing the key organizations, and to present a list of what are, in our view, viable suggestions that would provide for a true EMS system for Piscataway, and both improve and enhance the delivery of emergency medical care to its citizens.

III. POPULATION, DEMAND, RESPONSE TIME, AND STATION LOCATION ANALYSIS

In this chapter we start with population projections, estimate their impact on future demand, and then undertake a response time and station location analysis to see if more stations are needed, or station locations need to be adjusted.

Population and Development

Piscataway Township has had a steady rate of population growth since the 1970s, adding approximately 5,000 new residents every decade. Figure 4 shows the actual and projected population growth from 1970-2030. The current Township population was 56,044 in the 2010 Census. It is expected that over the next decades the population will increase slightly, but at a slower rate than in previous years because, for the most part, the Township is built out. The only major development projects underway are the Transit Village and Rutgers Village being built in the southeast corner of Piscataway on the Rutgers campus.

Figure 4: Actual (solid) and Projected (dashed) Population, 1930-2030

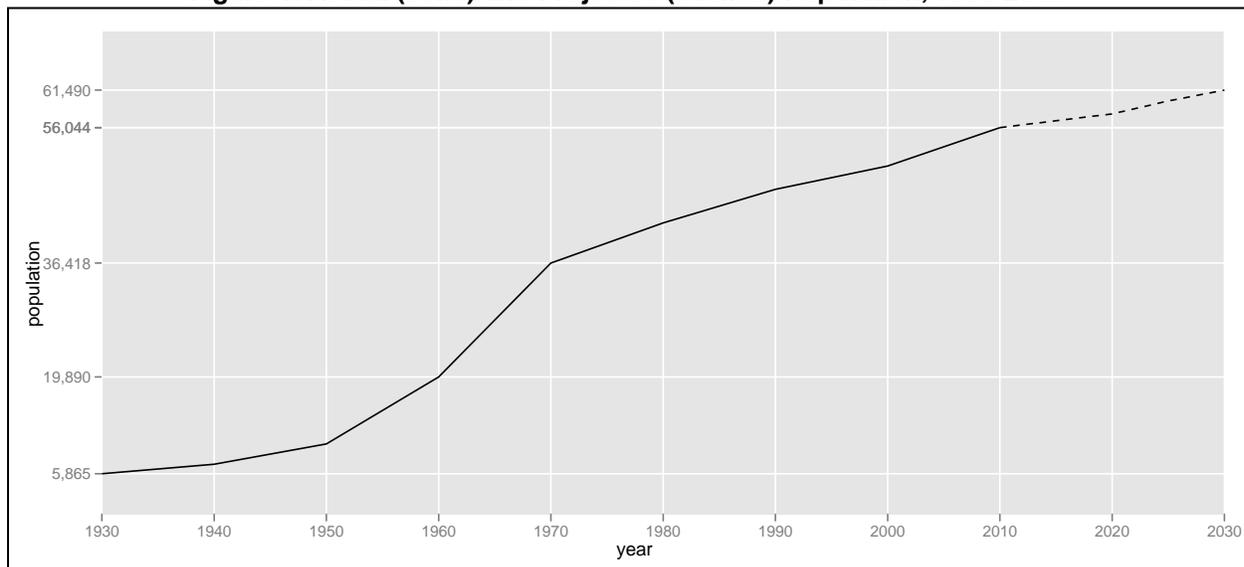


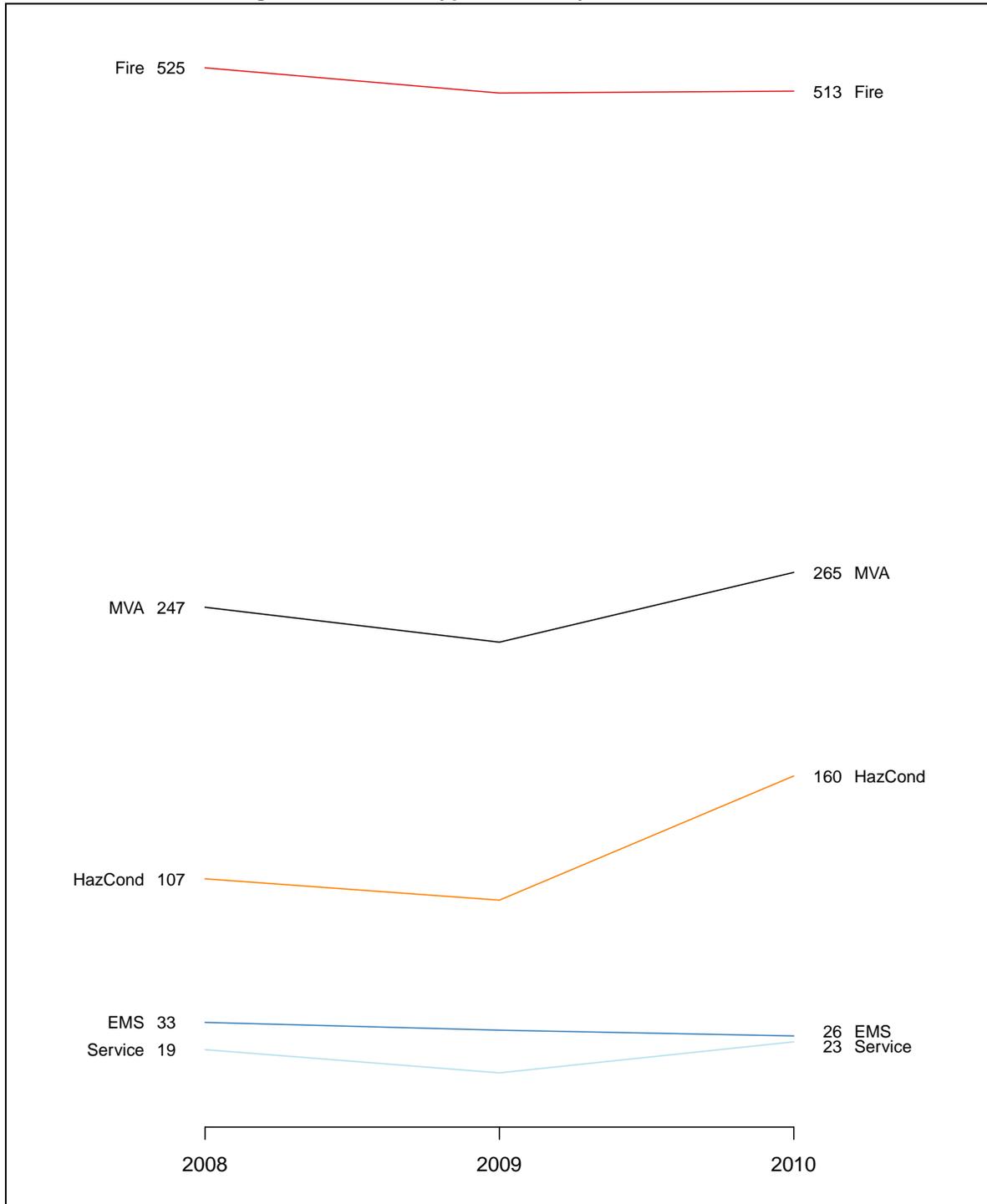
Figure 5 shows the current population density (compiled using 2010 United States Census data). The map shows that Piscataway Township is comprised mostly of “urban” residential areas (population density over 1,000 per square mile). Two areas do not have large residential populations. One is the Route 287 corridor which contains a large swath of Industrial areas and some parks. The other is the southern end of Piscataway (and extending up along the Raritan River) which is comprised mostly of parkland.

Figure 5: Population Density, Census 2010



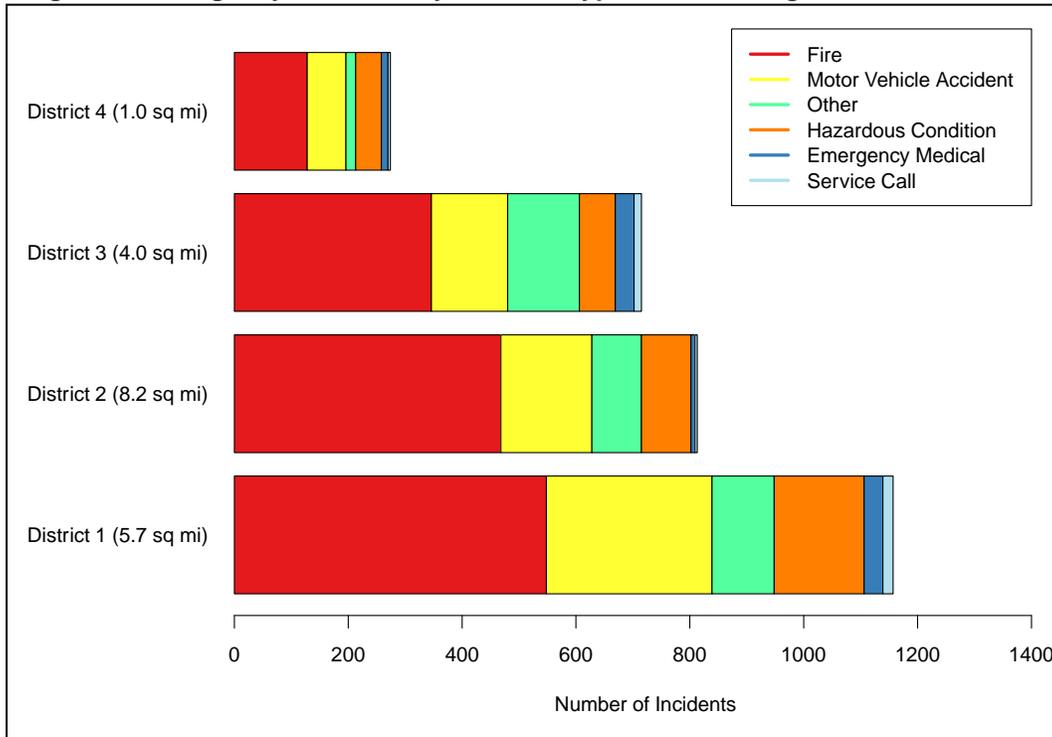
Incident Trends by Type – Figure 6 shows township-wide incident type trends over the last three years. It appears that demand for emergency service has remained steady for the last few years, which is in line with the development profile for the community. In many of our studies, we find significant upward trends in calls for fire department based emergency medical service. Because fire companies in Piscataway attend only a portion of EMS calls, this does not appear to be an area of concern for the fire departments as much here as elsewhere.

Figure 6: Incident Type Trends by Year, 2008-2010



Demand by Fire Districts – Figure 7 shows emergency services demand by fire district. The length of each bar represents the total number of incidents that occurred in that fire district during the last three years. Within that bar, the different incident types are represented by different colors depicted in the legend. The different planning districts have vastly different land areas which are noted in the figure. Planning districts with large land areas may have high total emergency services demand, yet low demand per capita or per square mile.

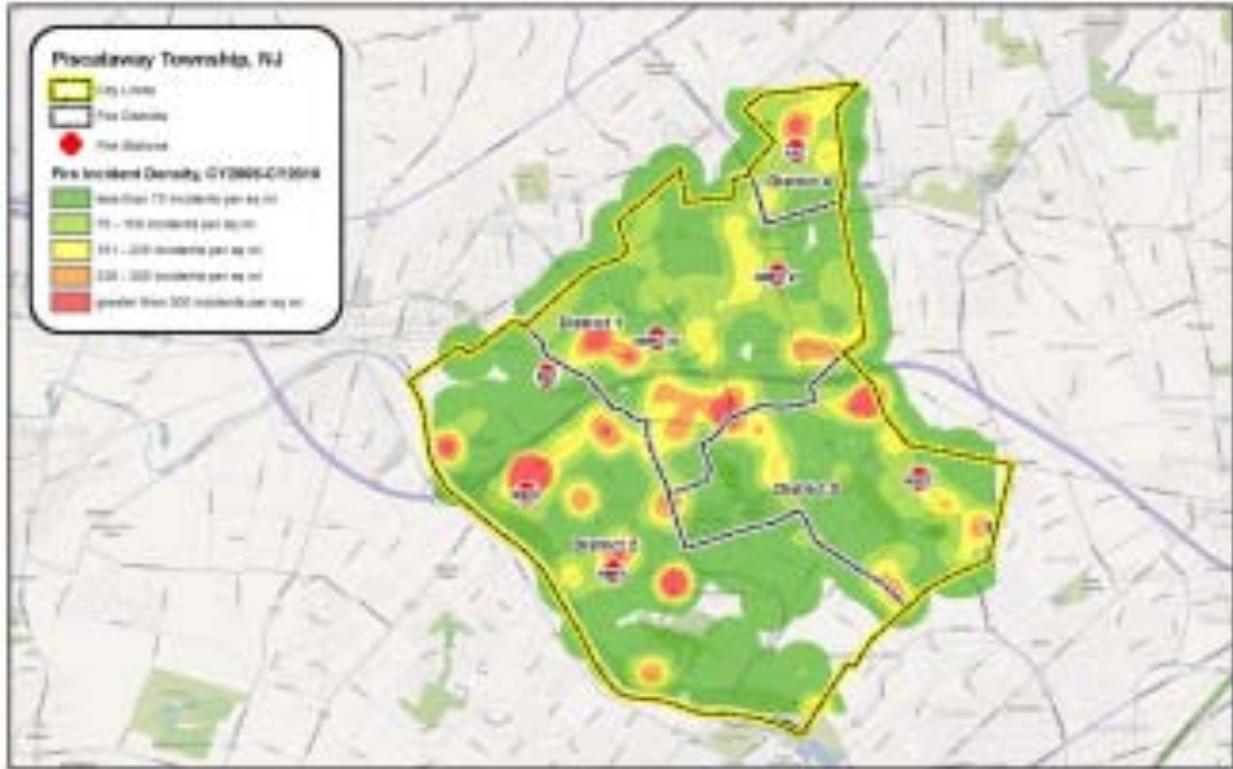
Figure 7: Emergency Incidents by Incident Type and Planning District, 2008-2010



District 1 had the most incidents over the last three years with 1157, followed by District 2 (813), District 3 (715), and District 4 (274). While this total demand figure is helpful to get a general understanding of how much emergency services demand each fire district has, it does not paint a clear picture about where the majority of demand is actually occurring because it does not account for the number of square miles each fire district covers. Area covered ranges from 1 square mile in District 4 to 8.2 square miles in District 2.

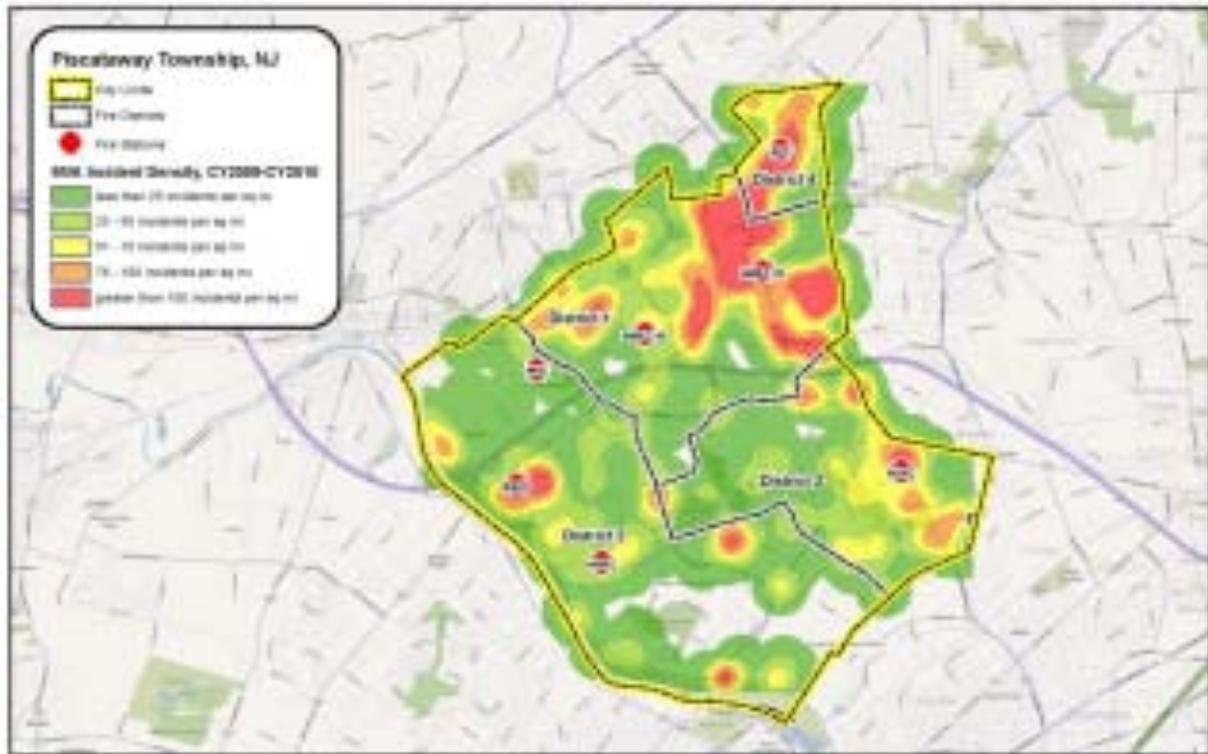
Geospatial Mapping of Fire and MVA Incident Density – A better way of looking at demand is to actually map out incident densities using GIS software. This allows us to pinpoint high-demand areas (or hotspots). Figure 8 and Figure 9 show incident densities for the two most prominent call types, fires and motor vehicle accidents. The fire incident density figure maps out all incidents dispatched as a fire. This includes structure fires, vehicle fires, and outside fires. We see from this map that there are several fire hotspots spread throughout the township, but no particular trend with respect to their locations.

Figure 8: Fire Incident Density, 2008-2010



Motor vehicle accidents, shown in Figure 9, seem to predominantly occur in the New Market and Arbor Fire Districts, but there are several additional hotspots spread throughout the township.

Figure 9: Motor Vehicle Accident (MVA) Incident Density, 2008-2010



Response Times

Response time is the most common performance measure used by the fire service because it is understood by citizens, easy to compute, and useful in the evaluation of end results. Rapid response is also an aspect of the quality of service that most citizens care about. There have been a few attempts to measure the incremental value of a minute faster response time for fires and EMS calls, but there is no definitive study of the incremental benefit. Faster is better, but it is unclear how much better in terms of dollars or lives saved. In place of true measures of fire rescue service outcome, response time is often used as a proxy measure.

In this response time analysis we gauged performance against the 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, 2010 Edition. For “urban” areas such as those found in Piscataway Township, the standard specifies the fire department shall meet a response time objective of 9-minutes 90 percent of the time as shown in Table 2.

Table 2: NFPA 1720 Staffing and Response Time Objectives

Demand Zone^a	Demographics	Minimum Staff to Respond^b	Response Time (minutes)^c	Meets Objective (%)
Urban area	>1000 people/mi ²	15	9	90
Suburban area	500–1000 people/mi ²	10	10	80
Rural area	<500 people/mi ²	6	14	80
Remote area	Travel distance ≥ 8 mi	4	Directly dependent on travel distance	90
Special risks	Determined by AHJ	Determined by AHJ based on risk	Determined by AHJ	90

- a. A jurisdiction can have more than one demand zone.
- b. Minimum staffing includes members responding from the AHJs department and automatic aid
- c. Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.

In this response time analysis, we show average times, 80th percentile times and 90th percentile times to show how different calculation methods provide drastically different measures of performance. Average response times have been increasingly less used by the emergency service industry because small numbers of very short or long response times (or data errors) can distort the results. We show average response times because people typically understand them better than fractal times, but fire departments should never gauge performance strictly on average response times. The public is interested in how fast a system responds to most calls, which is better reflected in fractals rather than averages. More and more departments are adopting the 90th percentile for reporting response times (mostly due to NFPA’s use of this measure). However, meeting the 90th percentile goal is not always the most efficient means for delivering emergency services. A 90th percentile response time of x minutes means that, at least 90 percent of the time emergency crews arrive in less than x minutes. A system designed for 90 percent compliance allows only 10 percent of calls to have response times that exceed the target goal time. Although it is certainly possible to design a system with 90 percent compliance for all areas of a jurisdiction, it is usually not a cost-effective strategy. Urban areas close to several fire stations should have high compliance, but it does not always make sense to dictate such high compliance for suburban and rural areas (NFPA 1710 even acknowledges that it would not make sense to apply 1710 goal times to more rural areas).

Although NFPA 1720 recommends a 90 percent compliance with the 9-minute response time objective for “urban” areas served by volunteer departments, we typically evaluate department response times at an 80th percentile level as well as the 90th percentile. There are several reasons for this. First, we subdivide our analysis into incident types and geographic areas (which most departments do not do). To have 90 percentile compliance in each of these subdivided areas would result in much higher than 90 percent compliance jurisdiction-wide. Second, departments that do not have rigorous data quality controls will typically have more

calls with incorrectly long response times than incorrectly short response times. Because 90 percent compliance is very difficult to achieve, we use 80 percent compliance to account for some erroneous data. Achieving NFPA 1720 at 90 percent compliance is a great goal but, in our professional judgment, using 80 percent compliance is a more appropriate measure of current performance [The CPSE Standards of Cover Manual also uses 80th percentile times for assessing station location performance].

The analysis of response times for Piscataway Township included only incidents dispatched as an emergency (we eliminated service calls from the response time analysis). For all time segments, we analyzed three years' worth of data. We eliminated incident time segments that were more than three standard deviations from the median (outliers). Three times the standard deviation was used because if travel times had a normal probability distribution, 99.7 percent of incidents are expected to fall within three standard deviations. Anything more than three standard deviations is likely to be an error in the data or a highly unusual situation. Each response time segment is analyzed by hour of the day and incident type. For time segments other than call-processing and turnout, we also analyzed response time by individual fire district.

Call Processing or Alarm Handling Time – According to the NFPA, Alarm Handling Time is the “time interval from the receipt of the alarm at the primary public safety answering point (PSAP) until the beginning of the transmittal of the response information via voice or electronic means to emergency response facilities (ERFs) or the emergency response units (ERUs) in the field.”

NFPA 1221 (Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, 2010 Edition) specifies that “the fire department shall establish a performance objective of having an alarm processing time of not more than 60 seconds for at least 90 percent of the alarms and not more than 90 seconds for at least 99 percent of the alarms.” Figure 10 and Table 3 show the call processing times by time of day and incident type and they do not come close to meeting this standard. The 90th percentile call processing time for all emergencies is currently 4:59. The analyzed time is over five times the 60-second standard. When trying to reduce total response times, it is much less expensive to address the call processing component than the travel time component (which generally require building additional stations and staffing additional units). It appears that very significant response time improvements may be realized from revamping the dispatch center.

Recommendation 13: Put in place measures to reduce call processing times to meet the NFPA 1221 alarm handling time standards. The dispatch center may need to hire more dispatchers and/or implement technical solutions for faster alarm handling. Ultimately it will be much cheaper to spend money on improving dispatch than building additional stations or adding units in the field to achieve better total response times.

Figure 10: Call Processing Time by Hour of the Day, 2008-2010

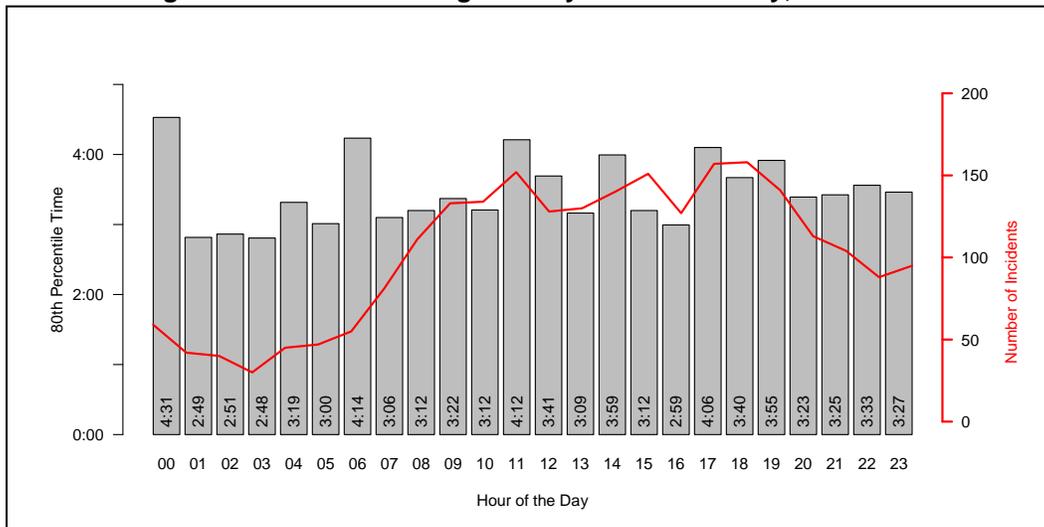


Table 3: Call Processing Time by Incident Type, 2008-2010

	Average	80th Percentile	90th Percentile
Emergency Medical Service	5:08	7:59	9:01
Fire & Special Operations	2:26	3:14	4:24
Other Emergencies	2:52	4:07	6:03
(all)	2:36	3:34	4:59

Turnout (or Reaction) Time – NFPA defines turnout time as “the time interval that begins when the emergency response facilities (ERFs) and emergency response units (ERUs) notification process begins by either an audible alarm or visual annunciation or both and ends at the beginning point of travel time.” Although the NFPA 1720 standard does not specify a turnout time objective, turnout time is part of the 9-minute fire department reflex time objective (dispatch to arrival). Figure 11 and Table 4 show turnout time by time of day, incident type and fire company. It appears that, on average, turnout times are about 5 minutes. This is the time required for volunteers to drive to the station, don turnout gear and start moving towards the incident. The main way to reduce turnout time for volunteers is to have duty periods in the station, eliminating the time to drive to the station.

Figure 11: Turnout Time by Hour of the Day, 2008-2010

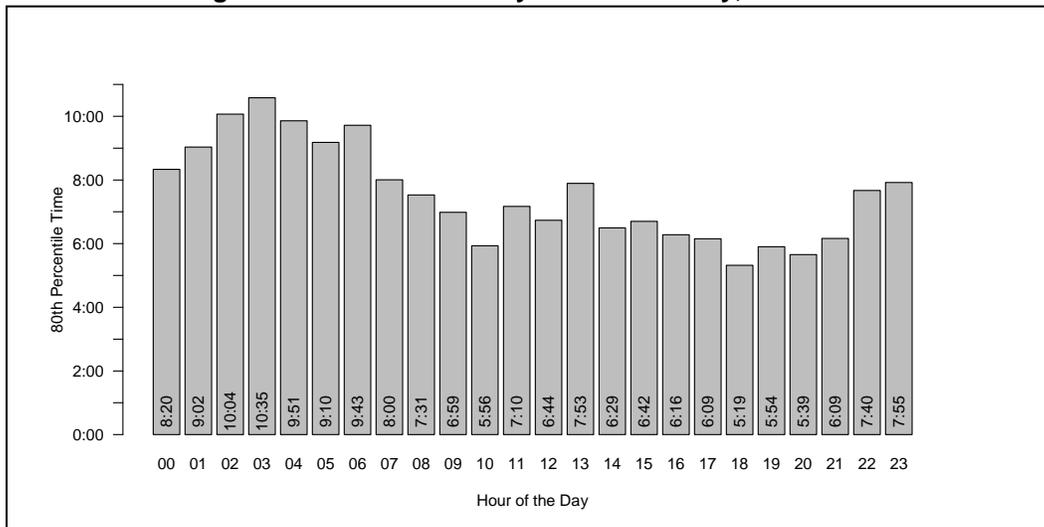


Table 4: Turnout Time by Incident Type, 2008-2010

	Average	80th Percentile	90th Percentile
Emergency Medical Service	4:03	6:43	8:30
Fire & Special Operations	4:44	7:19	9:12
Other Emergencies	3:53	6:08	8:03
(all)	4:29	7:02	8:57

Table 5: Turnout Time by Fire Company, 2008-2010

	Average	80th Percentile	90th Percentile
Arbor Fire Company	6:06	8:39	11:31
Holmes Marshall Fire Company	4:36	6:52	8:25
New Market Fire Company	3:52	6:00	8:15
North Stelton Fire Company	5:11	8:43	10:50
Possumtown Fire Company	4:08	6:30	7:27
River Road Fire Company	4:26	6:45	8:10
(all)	4:29	7:02	8:57

Travel Time by Hour of the Day and Incident Type – Travel time is the time interval that begins when a unit is en route to the emergency incident and ends when the unit arrives at the scene. Travel times are a function of geography, road conditions, traffic/congestion, and the number of and location of fire stations with respect to the location of actual calls. Again, there is no 1720 drive time performance objective for volunteers, but this time segment is part of the total time objective of 9-minutes. It appears that travel times (for the first-arriving unit) are fairly similar regardless of the fire district in which an incident occurred. All four districts had average travel times of 4-5 minutes, 80th percentile travel times of about 7-minutes and 90th percentile travel times of about 10-minutes.

Figure 12: Travel Time (First Arriving Unit) by Hour of the Day, 2008-2010

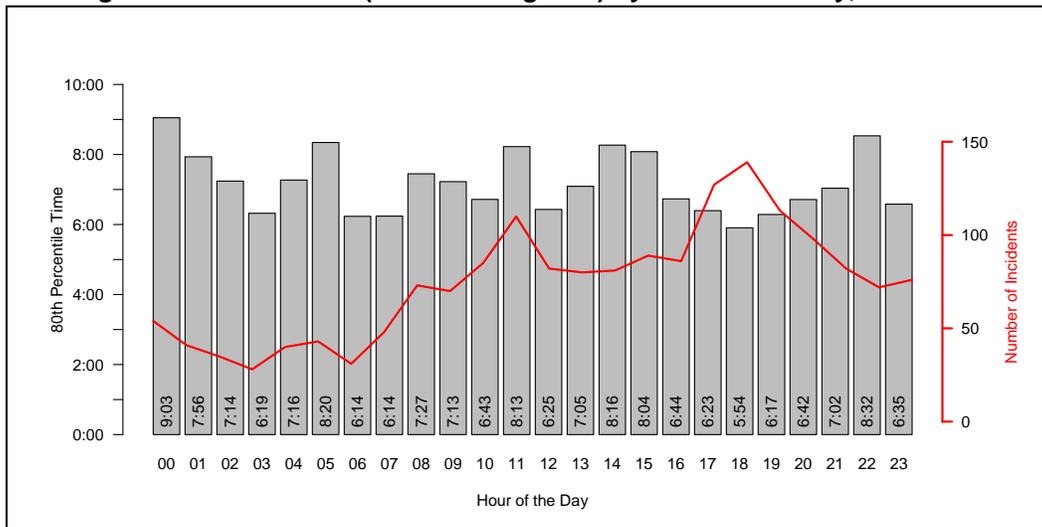


Table 6: Travel Time (First Arriving Unit) by Incident Type, 2008-2010

	Average	80th Percentile	90th Percentile
Emergency Medical Service	5:27	8:41	10:49
Fire & Special Operations	4:35	7:03	10:22
Other Emergencies	4:21	6:49	9:56
(all)	4:33	7:02	10:16

Table 7: Travel Time (First Arriving Unit) by Fire District, 2008-2010

	Average	80th Percentile	90th Percentile
District 1	4:34	7:16	10:28
District 2	4:18	6:37	9:14
District 3	4:58	7:15	10:32
District 4	4:00	7:03	10:13
(all)	4:31	7:01	10:16

Fire Department Reflex Time – This metric is the time from dispatch notification to a unit or units to the time the units arrive on the scene of an emergency. Occasionally a unit self-dispatches, such as when seeing a fire on the way back from a call. It is possible for arrival to happen before dispatch in that case, but it is relatively infrequent.

NFPA 1720 specifies a fire department reflex time goal of 9-minutes or less. Table 8 shows the fire department reflex time for the first unit to arrive at an emergency by incident type.

Table 8: Fire Company Reflex Time (First Arriving Unit) by Incident Type, 2008-2010

	Average	80th Percentile	90th Percentile
Emergency Medical Service	10:03	13:19	21:00
Fire & Special Operations	9:07	13:08	16:14
Other Emergencies	7:56	12:15	15:30
(all)	8:50	13:01	16:07

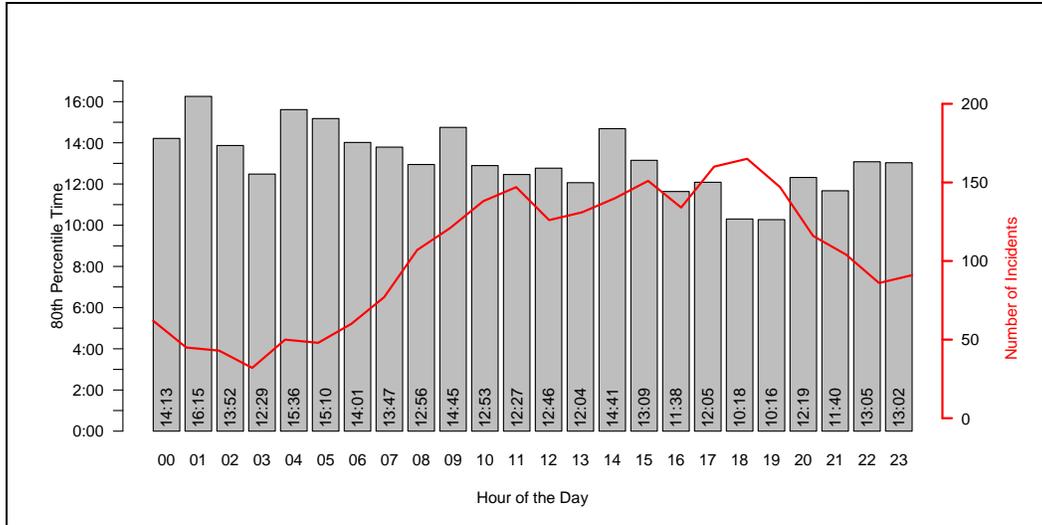
At the 80th percentile level, times are generally 13 minutes or about 4 minutes longer than the 9-minute time objective. These times are slow. When combined with slow call-processing times, there is a serious response time problem afoot. Table 9 shows the same fire department reflex time segment by fire district. District 1 has the fastest 80th percentile fire department reflex time of 11:02 (still 2 minutes over the standard). District 3 with a time of 15-minutes is almost 6 minutes above the standard.

Table 9: Fire Company Reflex Time (First Arriving Unit) by Fire District, 2008-2010

	Average	80th Percentile	90th Percentile
District 1	8:27	12:39	15:19
District 2	7:43	11:06	14:38
District 3	10:34	15:08	18:35
District 4	10:18	14:46	19:04
(all)	8:53	13:02	16:08

Figure 13 shows there are very limited variations in 80th percentile fire department reflex times by time of day.

Figure 13: Total Reflex Time (First Arriving Unit) by Hour of the Day, 2008-2010



The dispatch center does not currently run any performance reports that look at response times for the different fire districts. It was believed that this was the responsibility of the individual fire companies, and that the dispatch center was responsible for dispatching only and not monitoring outcomes. With particularly bad response times for a fairly heavy populated area, the township government needs to ensure that somebody is regularly analyzing response times and putting in place measures to reduce them.

Recommendation 14: Put in place a mechanism to regularly analyze and report response times. Response times are currently very slow and need to be improved. We suggest that the Township Dispatch Director explore and develop the use and implementation of such a mechanism within the current system.

Workload Analysis

In this section we look at the call volume and workload for each fire company. Unfortunately, the dispatch center does not track individual units, only fire companies response in general. That means that if a fire company sends two units to a fire, there is no distinction vs sending one. Because of the lack of unit data, this workload analysis is based on the number of times that a fire company responded (not taking into account how many units were sent). Figure 14 and Table 10 show the responses by fire companies over the last three years.

Figure 14: Responses by Fire Company, 2008-2010

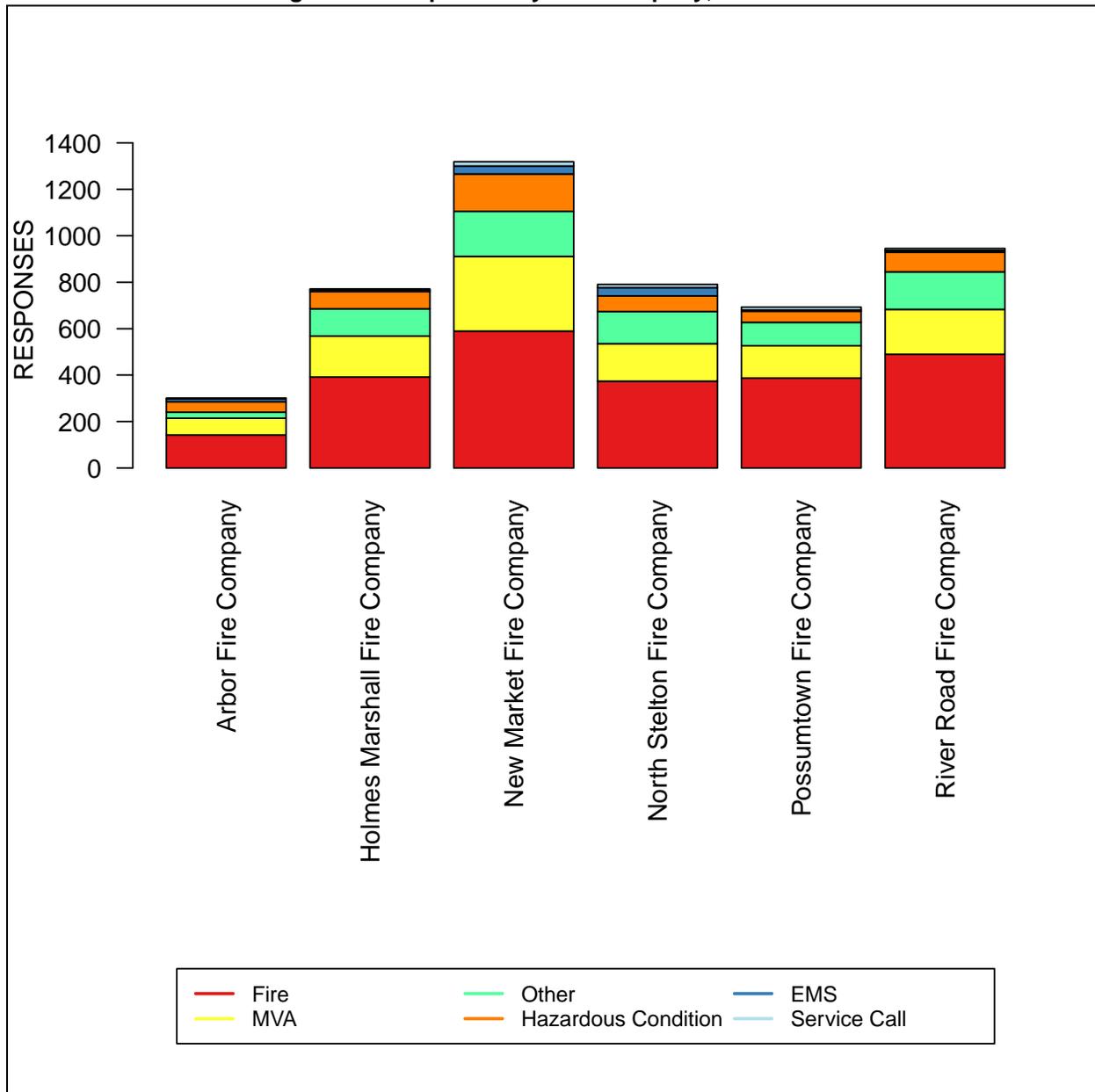


Table 10: Unit Workload (Unit Hours), 2008-2010

	Fire	MVA	Other	HazCond	EMS	Service	(all)
Arbor Fire Company	142	72	26	45	12	4	301
Holmes Marshall Fire Company	392	176	118	73	8	4	771
New Market Fire Company	589	322	194	161	34	19	1319
North Stelton Fire Company	374	161	139	67	36	14	791
Possumtown Fire Company	387	139	101	48	5	13	693
River Road Fire Company	490	193	162	84	8	8	945
(all)	2374	1063	740	478	103	62	4820

New Market Fire Company was the busiest, with 1,319 responses, followed by River Road Fire Company with 945 responses. Holmes Marshall, North Stelton and Possumtown had more moderate workloads with 771, 791 and 693 responses respectively. Arbor Fire Company has a relatively low workload with only 301 responses over the three years. Table 10 shows the average number of responses per day for each of the fire companies. Only New Market Fire Companies averaged more than one response per day.

Table 11: Workload Statistics by Unit, 2008-2010

	Total Runs	Runs per Day
Arbor Fire Company	307	0.3
Holmes Marshall Fire Company	780	0.7
New Market Fire Company	1351	1.2
North Stelton Fire Company	809	0.7
Possumtown Fire Company	704	0.6
River Road Fire Company	970	0.9
(all)	4921	4.5

Station Location Analysis

In this section we review fire station locations using Geographic Information System (GIS) software (ArcGIS 10). Figure 15 shows the theoretical travel time from the current fire station locations. Areas in dark green can theoretically be reached in four minutes and areas in light green in six minutes. According to NFPA 1720, the “urban” areas should have a total response time (dispatch to unit arrival) of less than nine minutes. Assuming five minutes for volunteers to respond to the station and turnout, travel times should be about four minutes to meet the response time objective. Because the response time objective does not need to be met 100 percent of the time, it is acceptable to have travel times slightly longer than four minutes for some residential areas. There are significant coverage gaps (areas that require more than six minutes drive time) in the southern portion of District 2 and western portion of District 2. Particularly worrisome is the lack of coverage for the new Rutgers developments.

There are enough stations to provide good coverage in the township, but the stations are not optimally positioned for the current demand. Both the River Road Fire Company and Holmes Marshall Fire Company would better situated southeast of their current locations to fill in much of the coverage gap in the south end of the community shown in Figure 15.

Figure 15: Current Station Layout with Drive Times

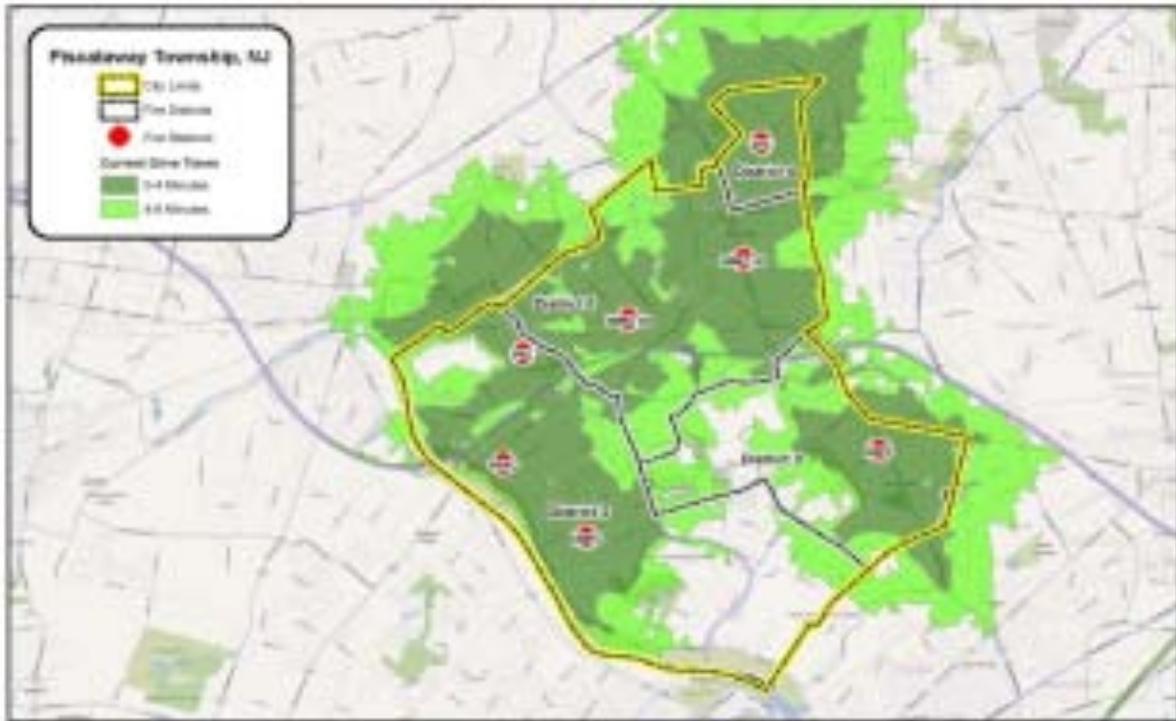
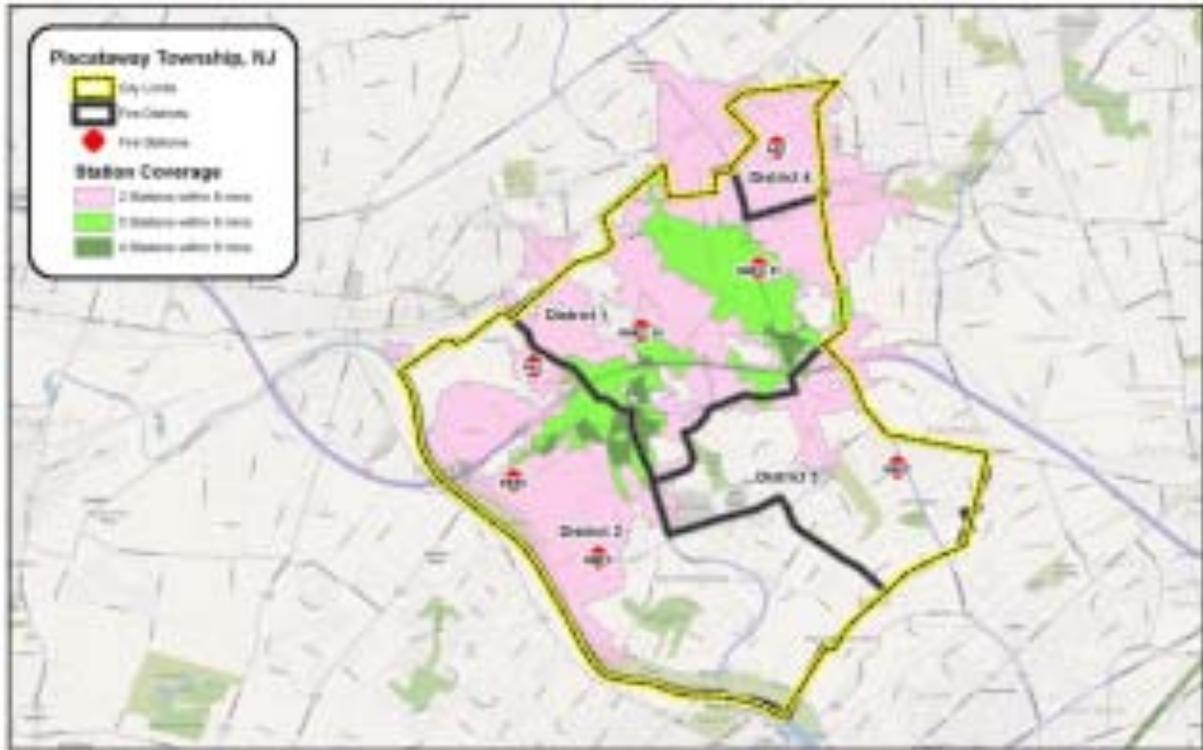


Figure 16 shows the number of fire stations that can reach different parts of the township within various drive times. . If there were a particularly high-density downtown area that often had concurrent calls, we would want to design some coverage overlap for these areas. Because Piscataway has low emergency services demand and there is no large hotspot area, fire stations ideally should be spaced to provide the best coverage without overlaps. Figure 16 shows that there are significant overlaps, particularly between the District 2 fire companies and New Market “Irish Town” Fire Company. Unnecessary coverage overlaps are not good when other areas of the township could benefit from increased coverage.

Figure 16: Current Station Coverage



District Lines – The final portion of the station location analysis looked at the appropriateness of the fire district boundaries with respect to the closest unit. Figure 17 shows the fire district boundaries overlaid on a map that shows the closest fire company for each area of the township. It appears that there are some significant areas where the closest unit is in another fire district. This is particularly the case in areas between District 2 and District 3. Holmes Marshall Fire Company can reach areas in District 3 faster than the North Stelton Fire Company and vice-versa.

Figure 17: Closest Fire Company vs Fire District Boundaries



Each of the fire companies has a long history with their territories, and sometimes history is hard to change. Nevertheless, it is time to reevaluate district lines and set up a station layout that best serves the entire community. This includes moving River Road Fire Company and Holmes Marshall Fire Company southeast of their current positions to fill the coverage gap in the south and central portions of the township. The district lines should then be redrawn so that incidents are more likely to get the closest unit—or else the philosophy should be changed that the closest available unit is dispatched regardless of district.

Recommendation 15: Reconsider the current station and fire district layout. In particular, consider moving the River Road Fire Company and the Holmes Marshall Fire Company southeast of their current locations and redraw the district lines so that citizens are more likely to get the closest unit.

IV. VOLUNTEER RECRUITMENT AND RETENTION

It is essential that all of the various Districts and Fire Company's within the Districts that provide emergency services for the residents and businesses in the Township of Piscataway collectively maintain a suitable number of qualified and properly trained volunteers.

The current delivery system in Piscataway for all types of emergencies including fire suppression, water rescue, extrication, and a significant part of the emergency medical service component relies solely on the utilization of volunteers. The recruitment and retention of qualified and competent volunteers in all of the fire districts is an ongoing critical issue.

During our discussions with various representatives of New Market District 1, River Road District 2, Arbor Hose District 3, and North Stelton District 4 as well as the Chiefs and rank and file of each fire company within those districts it became clear that there is a universal issue with recruitment and retention of volunteers that is reflective of the current national trend.

The recruitment and retention of qualified volunteer firefighters and or emergency medical service workers is a very complex and multifaceted problem. Time demands associated with two income families or a single parent household, increased training demands and requirements both in the areas of fire suppression and emergency medical service, increasing call volumes and the internal demands within the organization in terms of fundraising, house duties, and administrative requirements are some of the major contributing factors that are identified on a local and national level. Other contributing factors include changes in sociological make up of the community and gravitation toward the "me" generation and not on the concept of community as a whole.

Another significant area that is often identified in volunteer organizations with significant recruitment and retention issues is the range of problems that involve the lack leadership skills and the inability to manage internal conflict. Poor leadership, authoritative management styles in a volunteer setting and the inability to identify and manage change both internally and externally can lead to the inability to recruit and retain members in any organization. Simply put, volunteers don't want to be hassled when volunteering their precious time.

As identified in a 2007 study by the United States Fire Administration, the geographic area of the United States that has seen the greatest overall decline in volunteers is the northeast corridor³. The northeast states which have seen the major declines in the overall number of volunteers are New York, Pennsylvania, Delaware, and New Jersey. These states have traditionally relied very heavily on the volunteer segment of the fire service.

³ FEMS, U.S. Fire Administration. *Retention and Recruitment for the Volunteer Emergency Services Challenges and Solutions FA-310*. May 2007

We observed all of the aforementioned issues and problems were observed in Piscataway. The common thread was the lack of unified leadership. The current concept and organizational mindset of every district and fire company within the Township operating as a separate entity hinders any attempt to coordinate recruitment.

The districts and individual companies have instituted a variety of volunteer recruitment initiatives. But the companies vary from district to district and reflect the lack of coordination across districts. District and company recruitment and retention programs include some advertising, a LOSAP program for each district, and, in New Market, compensation for responding to calls, (sometime referred to as “paid on call”)

The monetary incentives within each district varied, and seemed to be dependent on the current distribution of tax funds or ratables. As a result of the current system of distribution of funds, some districts and companies are able to offer more monetary incentives than others. This creates an inequity within the fire districts. Ultimately, it would be more advantageous to establish a Township-wide universal recruitment and incentive program. The fire districts should formally establish a partnership with the Township Government to assist them in this endeavor. The partnership should include advertisement, media outlets including local government websites, and assistance from the Township Human Resources Department.

Recruitment efforts and the message and incentives need to be consistent for all residents and potential volunteers. The development of the recruitment advertising program could be through a paid professional advertising firm or with assistance from a Township media professional.

Recommendation 16: Place all recruitment and retention efforts under the aegis of one central leadership position for the entire Township. This is in line with our earlier recommendation and reemphasizes the need for one township wide organizational mission, vision and value system.

Recommendation 17: Establish a Township-wide set of incentives for all Fire Districts all Fire Companies and Rescue Squads. This would include a Township wide standardized LOSAP program and standardize all other incentives.

Recommendation 18: Establish a Township wide committee including representatives from each Fire Company and Rescue Squad to include line personnel and representation from the local government to discuss and identify issues and problems related to recruiting and retention of volunteers.

Recommendation 19: The proposed Fire Director should establish a direct relationship with the Human Resources Director of the Township to establish recruiting guidelines that are consistent with one unified policy.

Recommendation 20: The Unified Fire District should explore all avenues of media as a base for recruiting. This should include print media, fixed signage, the establishment of a Township wide website for the Centralized Fire District and a direct link prominently displayed on the Home Page of the Township Website.

V. FINANCING THE CURRENT SYSTEM

Each of the four districts must purchase and provide a variety of insurances. The insurance policies that each district purchases will vary, but typically they will include general liability, vehicle accident, personnel, and medical malpractice insurance.

Insurance and Risk Management

We live in a society that is litigious. Municipalities and fire protection districts are not immune. General Liability coverage allows for protection of a company's assets. Commercial general liability insurance policies, as they relate to fire districts, are designed to protect fire stations in the event of a fire or damage to the structure by other means. Policies will also encompass the equipment that is housed in the fire stations and provide for damage, and/or theft depending on the specific provisions within policy. Commercial general liability insurance also provides the fire district with legal and financial protection in the event that someone sues for an injury that was sustained while on a property owned by the fire district.

In addition to commercial general liability coverage, fire districts must also purchase vehicle liability policies which provide for protection and coverage involving all heavy fire apparatus, ambulances, utility vehicles, and support vehicles that are owned by the district and are involved in accidents. Some of these policies, depending on the type of coverage selected, may extend to firefighters personal vehicles if they are utilized for fire district or fire company business, including an emergency response.

Motor vehicle liability policies also provide coverage for injuries that are sustained as a result of an accident involving any district vehicle, a member of a fire department within the district, and also to non-district vehicles and persons not associated or affiliated with the fire district. Coverage and protection limitations in addition to insurance requirements are established by the State of New Jersey.

Another type of insurance policy utilized by the fire districts is a personal injury policy, which is designed to provide coverage for treatment, care, and hospitalization of resulting from injuries that are sustained by a member of the fire district and/or fire company within the district while on duty. These types of policies may or may not include long-term disability coverage, death benefits, and worker's compensation coverage.

Medical malpractice insurance protects a district in the event it is sued for negligence or an action that is not within the established standard of care while providing emergency medical care.

The fire districts must pay a significant amount of money for these various policies. In the supplemental section of the 2010 Fire District 4 Budget (North Stelton) document provided to the *New Jersey Department of Community Affairs* it was reported that the district had budgeted a total of \$32,000 for “insurance”. The most complete budgetary information was provided by Fire District 4 (North Stelton). The budget documents provided by fire district three (Arbor Hose) were incomplete and did not include any supplement pages or include any reference to insurance costs in budget year 2010. The team did not receive any of the requested budget information from Fire District 1 (New Market) for budget years 2009, and 2010. Fire District 2, which includes the River Road, Holmes Marshall, and Possumtown Fire Companies, did supply proposed expenditures for insurance in budget years 2008, 2009, and 2010.

Table 12: Insurance Costs, 2008-2010

Budget Year	District 1	District 2	District 3	District 4
2008	\$115,000	\$85,000	\$26,000	\$32,000
2009	Not Provided	\$90,000	\$26,000	\$32,000
2010	Not Provided	\$100,000	Not Provided	\$32,000

The scope of the study does not include the examination of each individual policy however some insight and recommendations can be provided from a fire service, best practices perspective.

The current system of each individual fire district purchasing its own insurance policies and establishing varying liability limits in has two major drawbacks: the levels of coverage throughout the Township vary depending on the philosophy and funding capabilities of each district, and economies of scale in insurance cannot be realized. There is the potential for a more competitive position with insurance companies that can lead to reduced insurance costs district-wide. The consolidation of policies from the fire districts may also eliminate certain minimum premium charges.

Consolidating insurance policies is not necessarily an easy task to undertake in the current system. (Consolidation of insurance would be one benefit of consolidation of the districts into one.) Each district currently has different policies and may have different levels of protection and different numbers of stations, vehicles, and members. A district’s rating history may adversely impact its cost if the district has a history of accidents, etc. The broader base of four districts dilutes the impact of accidents in one area.

Another area that is difficult to reconcile under the current delivery system is establishing overall levels of protection afforded by the insurance, and determining the percentage of cost share by each district. Consolidation of the fire districts could potentially eliminate many of these obstacles.

Joint Insurance Fund (JIF) – Another option with respect to insurance costs is participation in a Joint Insurance Fund or “JIF”. A JIF brings together a number of local entities to create the overall balance and funds needed for self insurance. It allows the participants to jointly purchase extra insurance needed to cover large claims, and creates a professional and specialized group to administer the program. The success of a JIF is predicated on the fact that it is created for the benefit of the people, and is considered a local government entity and not an insurance company. Every member in a JIF will meet on a monthly basis to discuss the present and future of their insurance program which creates a sense of ownership and potential efficiencies.

Currently over 60 percent of the local governments in the state of New Jersey participate in a JIF.

The Township of Piscataway should examine the current policies of each fire district in order to determine if the individual policies are sufficient in terms of risk. It must be understood that the overall level of risk must be addressed by the Township as a whole. Any tort claim against a fire district would most likely be made against the Township as the services provided are under the overall auspices of the Township government.

Recommendation 21: Representatives of the Township should examine all insurance policies currently in place by each of the fire districts to insure that the level of assumed risk to both the fire districts and the Township are reasonable and standard.

Recommendation 22: Standardize and consolidate all insurance policies currently purchased by the fire districts into one uniform standard set of policies that cover the entire fire service delivery system of the Township.

Recommendation 23: Consider participating in a Joint Insurance Fund (JIF) following the standardization of insurance policies.

Water Service Charges

The water service within the Township of Piscataway is provided by a private water utility, New Jersey American Water Company. The four fire districts within the Township each pay a significant amount fees annually to New Jersey American Water Company for fire hydrants, maintenance to the fire hydrants, and distribution system.

The fees and charges for water service have little or no relation to the water usage by the fire districts. The water services charges are a significant financial burden to the fire districts. The water charges are essentially passed on to the citizens through the tax levy in each district. This is in addition to the individual water usage fees that are charged to the residents and businesses of the Township. These fees and charges also have a negative impact on the operating and capital budgets.

The fee structure is established by the State of New Jersey Public Utilities Commission. As a result any fiscal relief or restructuring of fees will be met with stiff resistance. Any change of the current fee structure would require a collaborative effort with local and state representatives, and the fire commissioners on behalf of the township. This would have to be accomplished on a state wide basis.

Consequently, the only really viable way that the fire districts within the Township can reduce the fees charged by the water utility is to undertake a comprehensive study of the distribution and hydrant system, and determine if there is any redundancy in terms of required flow, the number of fire hydrants and the total flow from those hydrants.

A study of this type was conducted by the Ocean City Fire Department in the early 1990s and resulted in the removal of 24 fire hydrants throughout the township. The study examined the location of each hydrant (over 750), the water distribution system, and the flow required based on the construction and hazard features in the area where the hydrant would be utilized. The following table shows the charges to Township fire districts from 2008 – 2010.

Table 13: Piscataway Fire Districts' Hydrant Rental Charges

Budget Year	District 1	District 2	District 3	District 4
2008	\$290,000	\$270,000	\$80,000	\$145,000
2009	Not Provided	\$280,000	\$80,000	\$150,000
2010	Not Provided	\$260,000	Not Provided	\$150,000

Recommendation 24: Develop a position statement and partner with other local governments and the New Jersey League of Municipalities to address the significant costs borne by the taxpayers of each fire district and the Township as a whole to the New Jersey Public Utilities Commission.

Fiscal Analysis and Options

Operational revenues for the current delivery system in the Township of Piscataway are derived from several sources including flea markets, “boot drives”, and donations from businesses and the public in addition to other types of fundraising. The fire districts generate revenue through rental fees for special events, and meetings that are held in banquet facilities located within the fire stations. These sources of revenue are separate from the main source of operational revenue which is generated by four different tax levies, one for each fire district.

It is outside the general scope of this study to examine secondary sources of revenue. A considerable amount of funds are raised by the fire companies within each of the four fire districts and is used to directly support the accomplishment of their mission.

The operational funds derived from the various tax levies for each fire district are substantial, and are based on the overall ratables within each fire district shown in Table 14.

Table 14: Tax Generated Revenue, 2010

Fire District	Total Assessed Value Of District	Tax Rate Per \$100 of Assessed Value	Total Revenue
1	\$866,739,672	\$0.136	\$1,172,415
2	\$713,180,318	\$0.1445	\$998,452
3	\$147,220,918	\$0.188	\$274,800
4	\$528,590,118	\$0.145	\$762,275
Grand Total Tax Generated Revenue			\$3,207,942

As earlier stated, budget data supplied by the districts to the project team was neither consistent nor complete. The team was provided boilerplate budget data that is required by the State of New Jersey Department of Department of Community Affairs. Operational line item accounts and budgets that are utilized to track individual expenditures and serve as a basis and foundation for the state budget document were not supplied for review.

While the State Budget Document provided a modicum of useful information for the review, the team was not able to closely examine the budgets due to the lack of any real detail. In effect we were furnished with very basic and generalized budget information. From our discussions with township officials, they too are not privy to any in depth detail, or oversight. This is a poor way to have budget accountability within government. It fosters the potential for mismanagement of finances. Categories in the required state budget document are often lumped together, not detailed, and cannot provide a concise overview of the actual expenditures from what we could see.

In examining the budget information that was supplied, it is readily apparent that there are some very serious inequities with the way that the current system derives and distributes funds. The singular mission of all of the fire districts within the Township of Piscataway as well as the Township itself should be to insure that the people who reside, work and pay taxes within the Township are receiving fire protection services that are equal, standardized and transparent. Under the current funding and fund distribution system and accountability system that is not possible.

The question becomes why, if the Township of Piscataway has one local purpose tax that provides for equalized services throughout the Township, and one centralized governing body, must it have fire protection services that function as four totally separate entities with four different tax rates?

From both a fiscal accountability and operational standpoint it is not a best practice, and given the current economic climate, it is irresponsible. The current system is not equitable, efficient or balanced. The overall distribution of taxpayer funds should be determined by what is needed to best meet the needs of the residents of Piscataway, and not based simply on an ill suited and out of date series of district boundaries.

Centralization –Each of the fire districts has a board of five fire commissioners that oversee the expenditures of the district. Each of the 20 fire commissioners is paid varying compensation depending on the district in which they serve, and the available funds within the disparate budgets. The funding levels of the fire commissioners seem to directly coincide with amount of taxpayer revenue provided to each fire district even though the functions are the same. In one case there appears to be a paid administrative assistant in addition to the five elected commissioners. Based on the budget data provided for 2010 we observe the following as it relates to “Administration” within each Fire District.

Table 15

	District 1	District 2	District 3	District 4
Salary and Wages	\$74,700	\$49,620	\$22,300	\$34,125
Fringe Benefits	\$6,000	\$5,000	\$0	\$5,000
Other Expenses	\$42,000	\$44,200	\$14,550	\$27,150
Total	\$122,700	\$98,820	\$36,850	\$66,275
Grand Total Administrative Costs				\$324,645

A significant cost savings can be realized by creating a single Township-wide fire district that is administered by a single board of five to seven elected Fire Commissioners. This duplication of costs associated with the administration could be eliminated.

Recommendation 25: Create one Township-wide board of elected fire commissioners with the creation of the centralized, consolidated fire delivery system. This will reduce overall administrative costs.

The savings realized with the recommendation can be redirected to fully fund a paid Township Fire Chief.

Another beneficial outcome that can be realized in creating a single centralized administrative board for the fire service in the Township of Piscataway is the elimination of all current fire district boundaries and the associated individual tax rates. The creation of a single centralized administrative board of fire commissioners will mandate a single equalized tax rate for fire protection services.

Recommendation 26: Establish a single Township wide equalized tax rate for fire protection services.

Standardization – From both an operational and fiscal point of view every effort should be made by the four fire districts to maximize the available funds provided by the taxpayers of the Township. The cumulative purchasing power of the four fire districts as a combined entity in terms of procurement of goods, supplies, Capital Improvement Plans (CIP) and general services becomes much greater than as separate entities. Under the current model and decentralized provision of emergency services, the utilization of cooperative purchases and bulk purchases

would prove to be an extremely difficult undertaking given the fact that there is no central leadership to oversee and unify the concept.

Standardization of critical elements needed for all operational and non-operational items utilized by the fire service in Piscataway will allow for larger discounts and a greater economy to scale. All major acquisitions including hose, breathing apparatus, turnout gear, and radio equipment could be standardized for both fiscal and operational efficiency within the Township.

A standard set of bidding criteria with minimum bidding thresholds can only be established with a single centralized board of fire commissioners.

With respect to larger acquisitions such as fire apparatus there is no current standard within the Township. Each district buys what it deems is best (or wants, or can afford) for itself. Throughout the Township the apparatus as a whole appeared to be clean, and well maintained. The disparity in funding was also evident. The fire district that was allocated the most tax dollars had the apparatus with the most expensive add-ons and options. Conversely, the fire district that is allocated the least amount of funds based on an inequitable tax system had a very functional but “bare bones” piece of fire apparatus.

Standardization of fire apparatus within the Township of Piscataway or cooperative purchases between the current districts will allow for the possibility of multi-truck discounts, other incentives and ultimately greater savings to the taxpayer. In a centralized fire district the development of a single set of specifications designed to allow and attract multiple manufacturers to bid is a less daunting task than with four different leaderships with four different agendas.

Recommendation 27: With the creation of a centralized system the fire districts should consolidate and maximize purchasing power through cooperative and bulk purchasing.

Recommendation 28: Operational and non operational goods, supplies, and equipment should be standardized. This allows for greater cost savings and is operationally a sound practice.

Partnership – In adopting a centralized or singular fire district with a central board of fire commissioners, the fire service of Piscataway Township will benefit from the development of a partnership or shared services agreement with the Township itself as it relates to finance/accounting services, and purchasing. These types of services and agreements are currently in place between local governments, school districts, and local governments and other entities such as Special Improvement Districts. The concept allows for the most efficient use of existing resources without duplication. Under the partnership or share services agreement the Township and the centralized fire district could create a separate set of line item and group accounts within the Township accounting and purchasing departments. Sole access and control would be relegated to the centralized fire commissioners and director. The accounting portion

would have assistance from the Township Finance Director, and purchasing segment would allow for assistance from the Purchasing Agent of the Township.

This format allows for no duplication of services, total transparency as it relates to public funds, and potentially allows for additional savings with cooperative purchasing between the centralized fire district and the Township. The partnership would only be relegated to funds allocated through tax assessment for fire service, or the fire district tax.

Under this cooperative agreement, accounting and auditing services can also be portioned and shared.

Recommendation 29: The centralized fire district should develop a partnership or shared services agreement with the Township for Finance and Purchasing services.

Summary

From a fiscal point of view the elimination of the current model of four fire districts within the Township of Piscataway, and moving to a single centralized fire district creates a singular opportunity for significant savings by eliminating many duplicated entities and services. Funds can be either saved or reapplied elsewhere to further and enhance the overall mission of the fire service within Piscataway Township to the betterment of the taxpayers. A centralized fire district is fiscally sound in that it will eliminate and provide the following:

1. Eliminate 75 percent of the administrative costs currently associated with currently providing fire service within the Township.
2. Eliminate all outdated boundaries currently utilized to determine and allocate tax monies.
3. Create a single level and equalized tax rate for providing fire protection services throughout the Township.
4. Allow for the greater ability to standardize all elements of the township fire service delivery system.
5. Allow the elimination of duplicate services such as accounting, auditing, and legal.
6. Allow for development of an increase in purchasing power through cooperative purchases and bulk purchases.
7. Allow for the development of standardized specifications for key elements of the fire service delivery system which will increase purchasing and bargaining power.
8. Allow for the development of a shared services agreement for financial, accounting, and purchasing functions while still maintaining complete and separate autonomy.
9. Create a system of total transparency relative to taxpayer funds.

VI. FUTURE ALTERNATIVES FOR SERVICE IMPROVEMENT

This study was asked to consider several alternatives for service improvement going into the future. This chapter summarizes the overall findings and discusses the objectives and options for the future.

Objective 1: Identify Options for Fire and Emergency Services Delivery

Fire and EMS services in Piscataway Township are indicative of most emergency services in New Jersey. The service is provided by independent not for profit companies staffed by volunteer members, each covering a designated area in the township. This service delivery model is centuries old and has been the basis of fire and EMS operations nationally including New Jersey since Ben Franklin.

Communities of the 21st century bear few similarities to their 18th, 19th, and 20th century roots. Citizens now expect fast, effective, and efficient emergency service delivery by professional public safety organizations, be they volunteer or career operations.

Fire and EMS services in Piscataway are currently delivered by volunteer companies from stations located across the township. Each company is individual and independent with its own governance, organizational structure, and operational standards. These company's efficiencies range from very good to poor. Each company is fiercely independent and steeped in its own traditions and beliefs.

Piscataway Township government officials must now align emergency service delivery with citizen expectations for the level of service they expect from the township, since the delivery of all life safety services is the mandated responsibility of Piscataway Township. This responsibility means changes for all emergency services stakeholders. The patchwork approach to community emergency services delivery will no longer suffice.

Fire services in Piscataway being the oldest emergency service operations retain many of the same features that were in existence nearly two centuries ago and have seen little organizational change except in emergency operations. They have lost contact with the customers or citizens they serve as evidenced by decreasing numbers of volunteers and less donations from the public.

To move forward Township officials must develop the fire services structure, and operational standards to meet community expectations. This task begins with a singular authority to administer the way the volunteer companies do business in emergency and non-emergency operations.

EMS services though much younger operations also face significant hurdles in structure and service deliveries. Similar to fire services the EMS organizations are very independent, entrenched in traditions, and losing touch with the constituent base being served. Demand for service is ever increasing but volunteer companies are experiencing declines in membership. This is contributing to delays in delivery of emergency service and potentially could result in closure of some EMS companies for lack of operating funds.

As with fire services Piscataway Township officials are mandated to provide a life safety service which includes EMS. The current structure is not delivering consistent services at adequate levels to give citizens the level of EMS response set out in industry standards. Piscataway officials again must see that citizen service demands are met with a level of EMS response consistent with national standards and industry benchmarks.

The first order of business for Piscataway Township officials is to develop a Township emergency services administrative structure which will assure service delivery at a response level consistent with industry standards and community risks. This process should begin with codified establishment of a Department of Emergency Services. This department would be directed by an Emergency Services Coordinator and include a Piscataway Township Board of Fire Commissioners whose 5 member would be 1 member from each company's fire board and 1 member appointed by the Township from the public.

The Department of Emergency Services Department would be charged with developing, administering, and monitoring all emergency services service delivery policies in the township. Their primary objective would be to establish documented, industry and risk based response standards for all fire and EMS companies in the township. Once this set of SOP's is developed and approved by the Township administration, all fire and EMS service should be delivered consistently throughout the township.

With consistent service delivery the township should also set a singular township wide taxing rate for citizens and businesses. Additionally fees for specialized services such as EMS, HazMat, and technical rescue would also be established and billed. This funding would then be disbursed to the individual companies based upon their service demands, geographic size of response area, and capital needs using standard accounting practices and procedures.

The individual fire and EMS companies would retain their identity and continue their traditions of volunteer services, while providing optimum levels of service to the citizens and businesses of Piscataway Township. Township government would be assured of effective and efficient emergency services delivery with strategic oversight and review. Finally the constituency would be assured of a safe and secure environment in Piscataway Township.

Objective 2: Identify Critical Issues to be Resolved

Critical issues to be resolved for implementation of the plan proposed in Objective 1 of this chapter of the report will be primarily focused upon two factors. The current fire and EMS companies and legal challenges associated with changing the status quo will likely be the source of most impediments and time spent enacting this proposed plan.

The fire and EMS companies are very comfortable with the current way of doing business. They understand the way things get done and how to use politics to achieve their goals. Though the proposed plan will not eliminate any of the current companies it will increase accountability and force interaction of all the provider stakeholders. The current haves will have to share more financial resources with the have-nots and everyone will be required to perform to measurable benchmarks.

The key to moving forward with this endeavor is continuous communications. Hearing the concerns expressed by the companies and being open to some modifications while moving toward the eventual goal is crucial. However covert undermining or falsification of facts and plans must be dealt with quickly and decisively. Everyone will gain and everyone will lose along the path to the proposed consistent service delivery model.

Legal issues will come from developing the expanded role of Township government in emergency services delivery and modification to funding and financial accountability for the current emergency services. Developing a standard of service township wide is a role of township government and may be challenged but this challenge has occurred before in New Jersey and case law exists to say life safety is a basic requirement of local government.

Whichever options are chosen, one thing is certain: the process will have its share of supporters and non-supporters who will have a great effect on the outcome of the decisions. The leaders must always keep the mission of all emergency services at the sharp point of this endeavor. That mission is simply to save lives and protect property, and to do what is right for township residents.

Objective 3: Develop Implementation Plan and Recommendations

There is a need to develop a long range plan for all fire/rescue services in the Township of Piscataway. This is clearly a priority. Using key Fire and EMS stakeholders, and Township administration as the working committee, this key team should set a plan for the next 2, 5, and 10 years. The resultant long range plan must have sufficient detail to build the structure, operations, and financial foundations for emergency services and to set a clear course for the foreseeable future.

A strategic process should be used to develop the long range plan for emergency services in the community. All potential stakeholders must be identified and included in this process and all input should be well structured to avoid allegations of favoritism or exclusion.

Master Plan Process



Step 1: Identify the future mission and vision for emergency services. This is the who, what, when, where, why, and how of the process. It is imperative that this process be consensual between the participating stakeholders.

Step 2: Prioritize the issues that are identified in this study to develop direction for the plan.

Step 4: Establish broad brush goals to achieve your desired outcomes. These goals will be general statements of the outcomes needed to achieve and maintain the mission and vision of the Master Plan.

Step 5: Set objectives and activities under each goal area to achieve the desired results. This should include specific steps and timelines for these steps, as well as overall timelines for the objectives.

Step 6: Feedback and re-evaluation of the plan is essential to the overall success of the process. This must be done routinely during the entire implementation cycle of the plan and at least annually thereafter.