

Final Report Fire Department Consolidation

Cities of Grand Rapids, Kentwood, and Wyoming, Michigan

July 2013



FIRE/EMS

OPERATIONS

C E N T E R F O R P U B L I C S A F E T Y M A N A G E M E N T

Submitted by:

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ICMA

Leaders at the Core of Better Communities

Background

About ICMA

The International City/County Management Association (ICMA) is a 100-year-old, nonprofit professional association of local government administrators and managers, with approximately 9,000 members located in 28 countries.

Since its inception in 1914, ICMA has been dedicated to assisting local governments in providing services to their citizens in an efficient and effective manner. Our work spans all of the activities of local government: parks, libraries, recreation, public works, economic development, code enforcement, brownfields, public safety, and a host of other critical areas.

ICMA advances the knowledge of local government best practices across a wide range of platforms, including publications, research, training, and technical assistance. Our work includes both domestic and international activities in partnership with local, state, and federal governments, as well as private foundations. For example, we are involved in a major library research project funded by the Bill & Melinda Gates Foundation and are providing community policing training in El Salvador, Mexico, and Panama with funding from the United States Agency for International Development. We have personnel in Afghanistan helping to build wastewater treatment plants and have teams in Central America conducting assessments and developing training programs for disaster preparedness working with SOUTHCOM.

ICMA Center for Public Safety Management

The *ICMA Center for Public Safety Management (ICMA/CPSM)*, one of four centers within ICMA's U. S. Programs Division, provides support to local governments in the areas of police, fire, emergency medical services (EMS), emergency management, and homeland security. In addition to providing technical assistance in these areas, we also represent local governments at the federal level and are involved in numerous projects with the U. S. Department of Justice and the U. S. Department of Homeland Security.

ICMA/CPSM also is involved in police and fire chief selection, assisting local governments in identifying these critical managers through original research, the identification of core competencies of police and fire managers, and assessment center resources.

Our local government technical assistance includes workload and deployment analysis, using operations research techniques and credentialed experts to identify workload and staffing needs and best practices. We have conducted approximately 140 such studies in 90 communities ranging in size from 8,000 population (Boone, Iowa) to 800,000 population (Indianapolis, Indiana).

Thomas Wiczorek is the Director of the Center for Public Safety Management. Leonard Matarese is the Director of Research & Project Development.

Methodology

The ICMA Center for Public Safety Management team follows a standardized approach to conducting analyses of fire, police, and other departments involved in providing services to the public. We have developed this standardized approach by combining the experience sets of dozens of subject matter experts in the areas of police, fire, and EMS. Our collective team has more than one hundred years of conducting research in these areas for cities in and beyond the United States.

The reports generated by the operations and data analysis team are based upon key performance indicators that have been identified in standards and safety regulations and by special interest groups such as the International Association of Fire Chiefs, International Association of Fire Fighters, Association of Public Safety Communication Officials International, and through the Center for Performance Measurement of ICMA. These performance measures have developed following decades of research and are applicable in all communities. For that reason, comparison of reports will yield similar reporting formats, but each community's data are analyzed on an individual basis by the ICMA specialists and represent the unique information for that community.

The Public Safety Management team begins most projects by extracting calls for service and raw data from a public safety agency's computer-aided dispatch system. The data are sorted and analyzed for comparison to nationally developed performance indicators. These performance indicators (e.g., response times, workload by time, multiple-unit dispatching) are valuable measures of agency performance regardless of departmental size. The findings are shown in tables and graphs organized in a logistical format. Due to the size and complexity of the documents, a consistent approach to structuring the findings allows for simple, clean reporting. The categories for the performance indicators and the overall structure of the data and documents follow a standard format, but the data and recommendations are unique to the organization under scrutiny.

The team conducts an operational review in conjunction with the data analysis. The performance indicators serve as the basis for the operational review. The review process follows a standardized approach comparable to that of national accreditation agencies. Prior to the arrival of an on-site team, agencies are asked to provide the team with key operational documents (e.g., policies and procedures, asset lists, etc.). The team visits each city on-site to interview fire agency management and supervisory personnel, rank-and-file officers, and local government staff.

The information collected during the site visits and through data analysis results in a set of observations and recommendations that highlight strengths, weaknesses, opportunities, and threats of the organizations and operations under review. To generate recommendations, the team reviews operational documents; interviews key stakeholders and observes physical facilities; and reviews relevant literature, statutes and regulations, industry standards, and other information and/or materials specifically included in a project's scope of work.

The standardized approach ensures that the ICMA Center for Public Safety measures and observes all of the critical components of an agency, which in turn provides substance to benchmark against localities with similar profiles. Although agencies may vary in size, priorities, and challenges, there are basic commonalities that enable comparison. The approach also enables the team to identify best practices and innovative approaches.

In general, the standardized approach adopts the principles of the scientific method: We ask questions and request documentation upon project start up; confirm accuracy of information received; deploy operations and data analysis teams to research each unique environment; perform data modeling; share preliminary findings with the jurisdiction; assess inconsistencies reported by client jurisdictions; follow up on areas of concern; and communicate our results in a formal, written report.

ICMA Project Contributors

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SECTION I: Executive Summary

This report is the result of analyses of fire and emergency medical services (EMS) department operations within the cities of Grand Rapids, Kentwood, and Wyoming, Michigan. This report offers specific discussion, recommendations and alternatives for the cities regarding consolidation of fire services, and can also provide a benchmark in their delivery of fire and emergency medical services.

During our study, we analyzed performance data provided by the three fire departments and undertook a firsthand review of the departments' operations. This report seeks to identify ways the departments can improve efficiency while maintaining effectiveness for the communities they serve. The recommendations may be adopted in whole, in part, or rejected. However, ICMA recommends that specific objectives should be aligned with the recommendations and assigned to a specific individual and that a reporting/report card process be used to deliver input to the jurisdictions' administrators and elected officials.

In the preparation of this report, information gathering, observation, and analysis were conducted in separate phases. The initial phase focused on the collection and analysis of large amounts of response data. This data was obtained from compiling all calls for service for the Grand Rapids, Kentwood, and Wyoming fire departments over a twelve-month period. This initial phase also included compiling a host of other materials, including organizational charts, strategic and operational plans, financial data, and so forth, in preparation of the first site visit.

The second phase included two site visits to each city by members of the ICMA Center for Public Safety Management team. The team observed fire department and support operations, interviewed city and fire department staff, toured fire facilities, evaluated apparatus and equipment, and toured each locality for a windshield observation of community risk.

The team then analyzed the data and information it had gathered to prepare separate Operations and Data Analysis reports for Grand Rapids, Kentwood, and Wyoming. Each report addressed a wide range of issues germane to these cities that affect fire and emergency medical service delivery: governance, administration, financial performance, fire operations, EMS operations, apparatus, fire prevention, training, communications, and relationships with unions and other organizations. Each report also included a list of specific recommendations for improving fire and EMS delivery for that city.

Summary of Conclusions and Recommendations

In 2009 the cities of Grand Rapids and Wyoming began to explore the possibility of consolidating their fire departments. Discussion later expanded to include the city of Kentwood. The cities worked together on consolidation models making significant progress, and had reached understanding on many of the elements. ICMA was brought in to examine concepts and assist the communities in making further progress together.

To assess the consolidation plan under consideration by the cities, the team collaborated to analyze the findings and recommendations of the three individual city reports in

conjunction with the work that the staff of the three cities had undertaken to consider fire department consolidation. The aggregate result is this report on the feasibility of consolidation of the three departments. A summary of the recommendations from that consolidation report are provided below.

The following recommendations are based on best practices and careful analysis of the data and recommendations developed for the individual reports submitted to each of the cities of Grand Rapids, Kentwood, and Wyoming, and the staff consolidation report.

1. Full consolidation is judged to be the best alternative for each of the three cities and will improve service to residents of all three communities and yield efficiencies in aggregate costs. The cities should pursue the full consolidation of the three fire departments.
2. The staff work completed by the three cities in 2009 and 2010 represents a solid basis for the consolidation. The proposed course of action should be followed along with ICMA recommendations.
3. Consolidation of the three fire departments would result in an estimated annual savings of \$7.2 million when compared to the combined budgets of three individual departments. \$1.3 million is identified in a staff proposed consolidation of the three departments, and \$5.9 million is identified by ICMA.
4. The fire organization outlined in the staff proposal for consolidation is consistent with best practices in the fire service. This should serve as the basis for consolidation, but the plan also should incorporate ICMA recommendations, and where applicable to a consolidated department, the recommendations in the three separate city reports including having the private ambulance provider as the response agency for all calls except the most serious medical.
5. ICMA recommends the staff consolidation plan should be amended to include only the 16 fire stations (12 traditional and 4 staffed during identified peak call volume time periods). This represents a reduction of 5 fire stations from the 21 stations that are proposed. The 16 fire stations would deploy fewer total apparatus and would be staffed by fewer personnel. These recommended changes would result in an estimated annual savings of \$5.9 million, and would make the consolidation plan staffing level consistent with the sum of the staffing outlined in the three separate city reports, which are 256.
6. Demand-based/peak load staffing should be an integral part of the staffing plan for the consolidated department in recognition that calls for service is not dispersed uniformly throughout the 24 hour workday.
7. The paid on-call systems in use in the Kentwood and Wyoming fire departments should be integrated into the staffing plan for the consolidated department.

8. The consolidated department should consider the use of part-time employees to increase the flexibility in staffing in order to accommodate peak demand without adding unnecessary cost.
9. Any reduction in personnel resulting from the establishment of the consolidated fire department should be accomplished only through attrition, not through a reduction in force.
10. The EMS service delivery models proposed in the staff consolidation report and in the ICMA individual city reports related to medical priority dispatch and a greater reliance on having the private ambulance provider handle most calls without the involvement of fire-rescue personnel, represent best practices and should be adopted by the consolidated department.
11. The consolidated fire department should adopt a medical priority dispatch system and train all operational personnel to the level of EMT, so that it will provide efficient and effective emergency medical services designed to respond personnel and equipment of the consolidated department to only the most serious medical cases.
12. A new fire authority should be established to oversee the consolidated fire department, but it should not be given taxation power. Rather, the combined elected officials of the three cities should maintain control over funding.
13. West Michigan Fire Rescue Authority should be adopted as the official name of the consolidated department.
14. The authority should have a three-person governing board consisting of one elected official from each of the three cities.
15. The board should meet at least monthly during the initial consolidation and quarterly thereafter. Specific responsibilities should include approving the proposed fire department budget and developing and updating a strategic plan for the department.
16. The West Michigan Fire Rescue Authority should be housed within the city of Grand Rapids for administrative purposes.
17. All three cities should be actively involved in fire chief appointment decisions. The chief executive officers in Grand Rapids, Wyoming, and Kentwood should interview candidates and jointly make a recommendation to the board of the fire authority, which would then have the authority and responsibility for the final selection of the new fire chief.
18. The annual budget for the consolidated department should be recommended by the authority board and approved by all three city councils.

19. There should be a sunset review of the consolidated fire department within ten years of its adoption.
20. Funding for the consolidated fire department should be provided through a shared formula adopted by the three city councils that is based on a modification of the original cost allocation plan, which would place a greater value on the difference in risk between the three cities.
21. Funding for the merged organization should be phased in over a seven-year period with a guarantee that for the first three years no city would be required to pay more than it was paying for fire service in its current budget year. Changes would be phased in over the next four years in accordance with the adopted formula.
22. While full consolidation of the three departments is the recommended course of action, in the event that plan is not adopted, the three cities should pursue functional consolidation of specialized services, including training, hazard material response, and technical rescue.
23. Services that are combined as a result of functional consolidation would be best administered by the Grand Rapids Fire Department.
24. If functional consolidation is pursued, it should be funded by a ten-year interlocal agreement whereby Wyoming and Kentwood contract for services from the city of Grand Rapids.
25. If full fire department consolidation is not carried out, the city of Wyoming should pursue further analysis of a possible merger of police and fire departments utilizing the public safety officer concept.
26. The three city councils should adopt April 30, 2013, as the deadline for deciding whether to proceed with consolidation. Upon approval, the cities should establish a clear timeline for implementation.

These recommendations are discussed further in the body of this report. The report begins with an overview of the three fire departments and then offers discussion of the consolidation plan developed by the staff from the three cities. The report provides suggestions for modifications, and offers advice and recommendations from ICMA regarding consolidation of the three cities. Following discussion of full consolidation of the three fire departments, the report focuses on less desirable alternatives, including the functional consolidation of training and special services for the three cities and the possibility of a combined police/fire department in Wyoming.

SECTION II: Organizational Review

Grand Rapids Fire Department

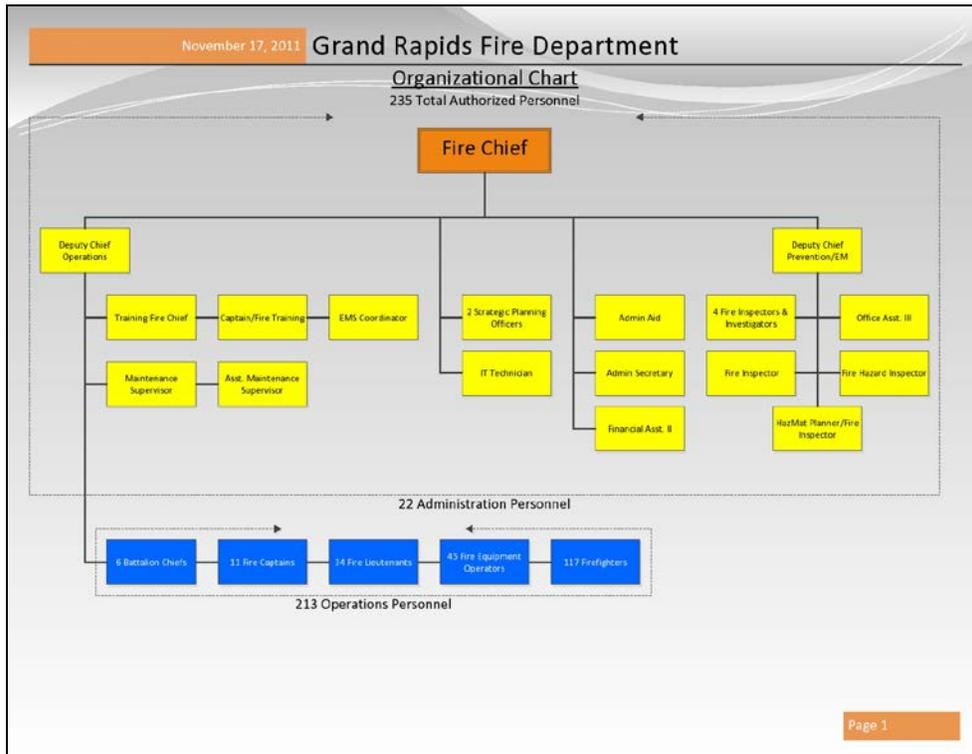
The Grand Rapids Fire Department operates as a department of the city of Grand Rapids, which, with a population of over 188,000, is the second-largest city in Michigan. The fire department serves an area of 45.3 square miles.

The fire department was established by city ordinance in 1850. A fire chief serves as the head of the department and reports to the city manager in a council-manager government.

The current fire chief, Laura Knapp, is a career professional who moved up through the ranks of the Grand Rapids Fire Department. The deputy fire chiefs and others in managerial positions have similar records of long-term service in the department and moved into increasingly responsible positions.

The department's formal organization chart reflects an authorized strength of 235 positions. A hierarchical chart and a functional chart build on the standard chart and help to further visually communicate the relationships among positions. Figure 1 illustrates the organizational structure of the Grand Rapids Fire Department.

FIGURE 1: Organization Chart, Grand Rapids Fire Department



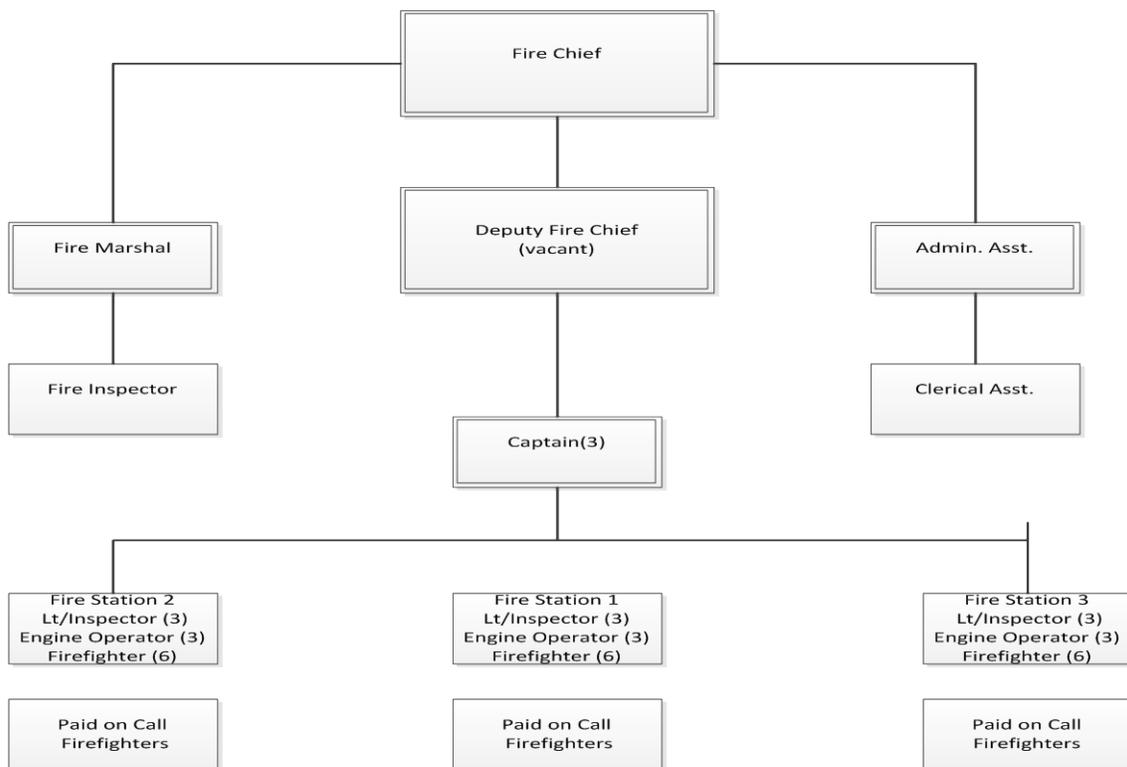
Kentwood Fire Department

The city of Kentwood operates under a mayor/council form of government in which the fire chief reports directly to the mayor. The city of Kentwood was incorporated in 1967; the Kentwood Fire Department began full-time operations in 1991. The Kentwood Fire Department is a combination department with full-time and paid on-call personnel. The Kentwood Fire Department serves a population of 48,707 in an area of 22.5 square miles.

The Kentwood Fire Department is led by Chief Brent Looman who was appointed in July 2011. Looman previously served as the department's fire marshal. The administrative staff consists of a fire marshal, a fire prevention officer, and an executive administrative assistant. The deputy chief's position is currently vacant.

The department's formal organization chart reflects the authorized strength of the department at thirty-nine fire suppression positions, four administrative officers, and respective civilian support personnel (Figure 2). Fire suppression personnel operate out of three fire stations utilizing a three-platoon system; a captain oversees the day-to-day operations of each of these platoons. The department also uses paid on-call fire personnel who are dispatched when needed to augment full-time firefighters. There are currently ten paid on-call personnel available.

FIGURE 2: Organization Chart, Kentwood Fire Department



Wyoming Fire Department

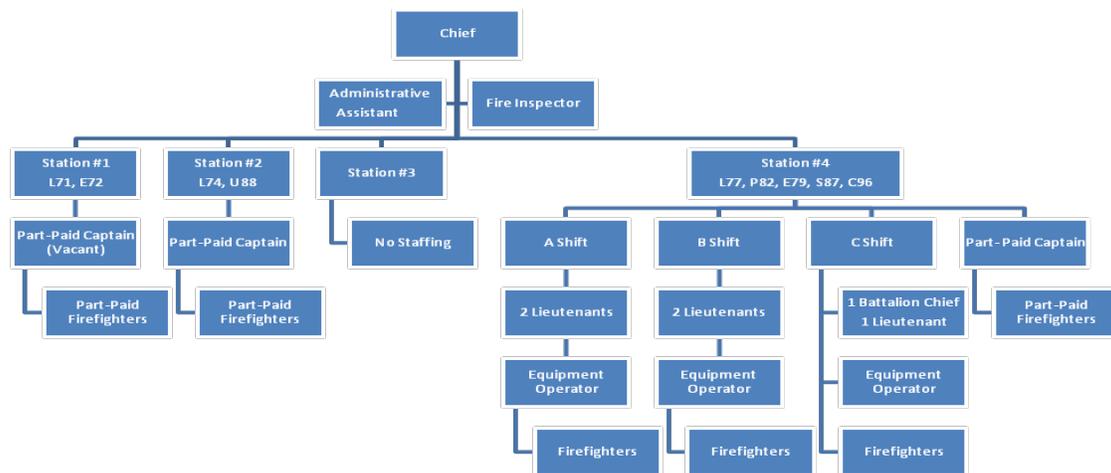
The city of Wyoming has a resident population of 72,125 living in 24.64 square miles. In 1959, Wyoming transitioned from a township to a home-rule city. The city functions under a council-manager form of government in which the city manager is appointed by the city council and functions as the chief executive officer. The city manager, with the approval of the city council, is responsible for appointing a fire chief.

There are currently three personnel that make up the department's Administrative Division: the fire chief, fire inspector, and an administrative assistant (Figure 3). Chief Bob Austin is a long-serving member of the Wyoming Fire Department and has served both as a paid on-call firefighter and as a career fire department member.

The Wyoming Fire Department is a combination department that utilizes both career (full-time) and part-time paid (paid on call) staff. The Suppression Division consists of twenty-two career personnel: one battalion chief, five lieutenants, three equipment operators, and thirteen firefighters. All career suppression personnel work a 50.4 hour workweek based on a 24-hour shift, which requires three shifts to staff the department 24 hours a day, 365 days per year. All career personnel except the chief and administrative assistant are represented by the International Association of Firefighters, Local 2758.

The Wyoming Department also has twenty-one paid on-call personnel assigned to three stations (#1, #2, and #4). These personnel are Michigan-certified firefighters who typically work another job. By design paid on-call employees carry a department-supplied pager and respond to the fire station when available for predefined call types. Once at the station, paid on-call personnel respond in a fire department vehicle to assist career personnel. The paid on-call personnel only receive compensation (hourly) when they are activated and do not have any required response benchmarks.

FIGURE 3: Organization Chart, Wyoming Fire Department



SECTION III: Consolidation Analysis

Prior to ICMA's involvement, the cities of Grand Rapids, Kentwood, and Wyoming had worked for a period of time assessing the possibility of consolidating their fire departments. The discussion regarding consolidation appeared to have been an open and honest partnership with all three cities playing equal roles.

Following the engagement of ICMA, the cities continued to actively and willingly participate in exploring the opportunities and challenges associated with consolidation. Fire service and city management staffs were engaged throughout the study effort. Due to its size and resources, the Grand Rapids Fire Department provided much of the staff support involved in developing and analyzing alternatives. Grand Rapids did not appear to dominate the process, and the work seems to reflect a true partnership of all three cities.

The city staff involved in analyzing the possibility of consolidating departments had reached the conclusion that the cities could not maintain the current level of fire and EMS service delivery under the present organizational structure, staffing, and delivery approach, which was deemed to be both inefficient and reactive. The local government professionals agreed that a consolidated effort should enable greater efficiencies and shared resources, and thus potentially created a more sustainable solution. They also concluded that a consolidated department may be more likely to be proactive. **The ICMA fire team strongly agrees with these conclusions.**

The staff estimated that the merger of the three fire departments would reduce costs by an estimated \$1.3 million annually. In this independent review and analysis of consolidation, the ICMA team identified an additional estimated \$5.9 million in savings that can be achieved through staffing and deployment changes. If the cities follow these recommendations, a consolidated department could save a combined estimated \$7.2 million annually.

Recommendations:

- Full consolidation is judged to be the best alternative for each of the three cities and will improve service to residents of all three communities and yield efficiencies in aggregate costs. The cities should pursue the full consolidation of the three fire departments.
- The staff work completed by the three cities in 2009 and 2010 represents a solid basis for the consolidation. The proposed course of action should be followed.
- Consolidation of the three fire departments would result in an estimated annual savings of \$7.2 million when compared to the combined budgets of the three individual departments. \$1.3 million is identified in a staff proposed consolidation of the three departments, and \$5.9 million is identified by ICMA.

The Consolidation Plan

The staff consolidation plan proposed by the cities included recommendations for a responsive, modern organization with a commitment to fire prevention, the use of modern technology, and demand-based staffing. Instead of traditional large pumpers that rely

exclusively on water resources to extinguish fires, the staff recommended quick response vehicles (QRVs) that would use compressed air foam. The demand-based staffing would provide for differential levels of staffing in recognition of the fact that calls for service are not uniformly spread over all 24 hours of each day.

Put simply, the proposed plan uses best practices as the underpinning of a sustainable department. More information about some of these best practice initiatives is included in the individual reports provided to the cities, particularly the Grand Rapids report.

Recommendation:

- The fire organization outlined in the staff proposal for consolidation is consistent with best practices in the fire service. This should serve as the basis for consolidation, but the plan also should incorporate ICMA recommendations, and where applicable to a consolidated department, the recommendations in the three separate city reports, including having the private ambulance provider as the response agency for all calls except the most serious medical.

Fire Station Location and Operation

Fire departments should conduct a community risk analysis within their communities for use in the comprehensive planning process. This assessment process will assist in determining the resources and assets needed to accomplish the department's core mission functions. Deciding how many emergency response resources to deploy, and where, is not an exact science. The final decision on a deployment model is based on a combination of risk analysis, professional judgment, and the governing body's willingness to accept more or less public-safety risk, based on available revenues.

Community risk and vulnerability assessment are essential elements in a fire department's planning process. According to a National Fire Protection Association (NFPA) paper on assessing community vulnerability, fire department operational performance is a function of three considerations: resource availability/reliability, department capability, and operational effectiveness.¹ These elements can be further defined as:

Resource availability/reliability: The degree to which the resources are ready and available to respond.

Department capability: The ability of the resources deployed to manage an incident.

Operational effectiveness: The product of availability and capability. It is the outcome achieved by the deployed resources or a measure of the ability to match resources deployed to the risk level to which they are responding.²

¹ Fire Service Deployment, Assessing Community Vulnerability: From <http://www.nfpa.org/assets/files/pdf/urbanfirevulnerability.pdf>.

² National Fire Service Data Summit Proceedings, U.S. Department of Commerce, NIST Tech Note 1698, May 2011.

Linking a fire department's operational performance functionality to the community risk and vulnerability assessment further assists fire personnel in the planning process by increasing their understanding of the community risk with regard to property and life-hazard potential. In combination with response run cards and staffing patterns, the analysis can help the department to shift resources from areas at less risk to concentrate more resources where there is a greater likelihood of incidents and to prepare for worst-case scenarios.³ The community risk assessment may also include determining and defining the differences in risk between a detached single-family dwelling, a multifamily dwelling, an industrial building, and a high-rise building by placing each in a separate category.

In the planning process for a proposed consolidated fire department, the GRFD planning division performed an extensive risk analysis of Grand Rapids, and wind-shield risk analysis of Wyoming and Kentwood. While all three cities have both low and medium risks for which to plan for, the analysis identified 1301 high risk occupancies in Grand Rapids, with 185 identified in Kentwood and 225 identified in Wyoming.

Additionally, the GRFD planning staff analyzed and plotted for all three cities critical planning components such as social vulnerability, daytime population, owner occupied housing, population density utilizing 2010 census, diversity index, median age, and percentage population density above the age of 64 and below the age of 18. All of these planning elements are essential when considering staffing and deployment of resources to ensure effective outcomes.

Although the staff proposed organization for the consolidated fire department is a solid plan, the number of stations, apparatus and personnel merits further discussion when considering all of the planning factors. In the current unconsolidated arrangement, the three departments have a total of 18 fire stations. (Three of the four Wyoming Fire Department stations however, are not staffed with full-time personnel.) The 18 stations have a total of 22 apparatus to respond to calls for service: 9 engines, 5 ladders or platforms, 3 rescue engines, 3 battalion chief cars, and 2 medical squads. Figure 4 shows the stations and the apparatus currently assigned to those stations. Figure 5 illustrates the demand for all fire incidents for 2009-2010, while Figure 6 illustrates structure fire demand. The purpose of these demand maps is to benchmark current and proposed deployment of resources as illustrated in Figures 4, 7 and 8 against demand for fire service.

It is important that prior to and after implementation of any consolidated fire department, deployment adjustments are made based on consideration of an increase or decrease in risk, demand for service, response time, and available funding.

³*Fire and Emergency Service Self-Assessment Manual*, Eighth Edition, (Center for Public Safety Excellence, 2009), 49.

FIGURE 4: Current Stations and Apparatus

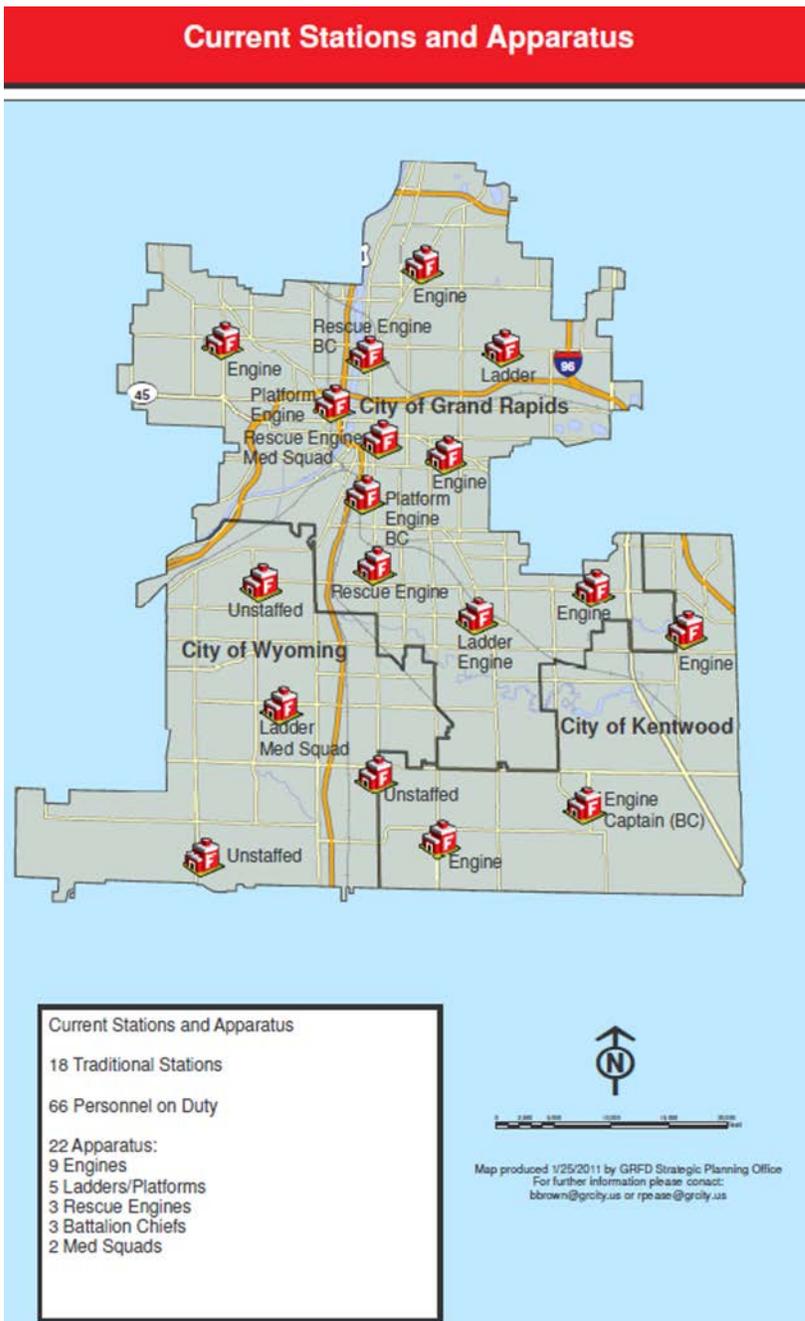


Figure 5: Fire Incident Demand

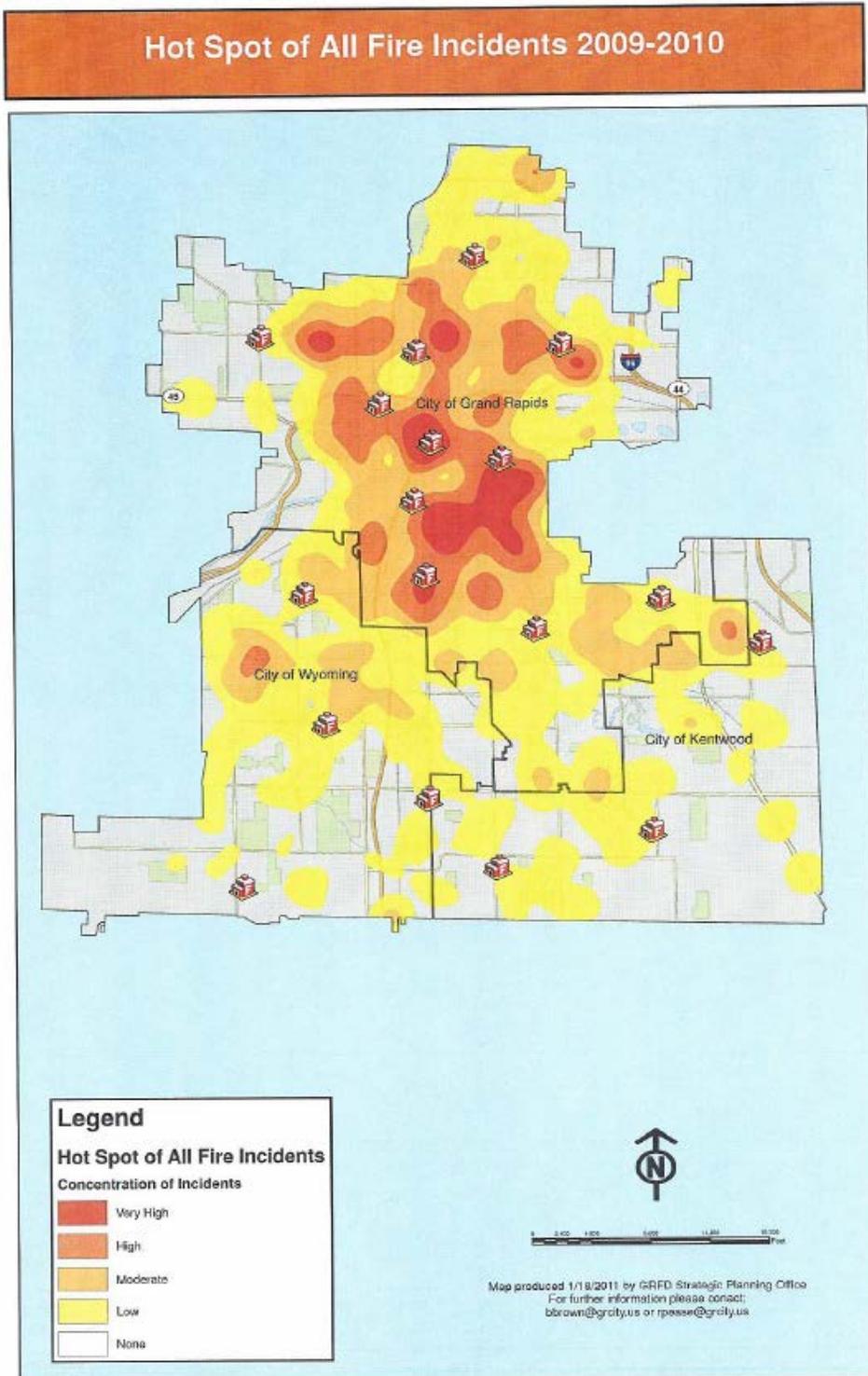
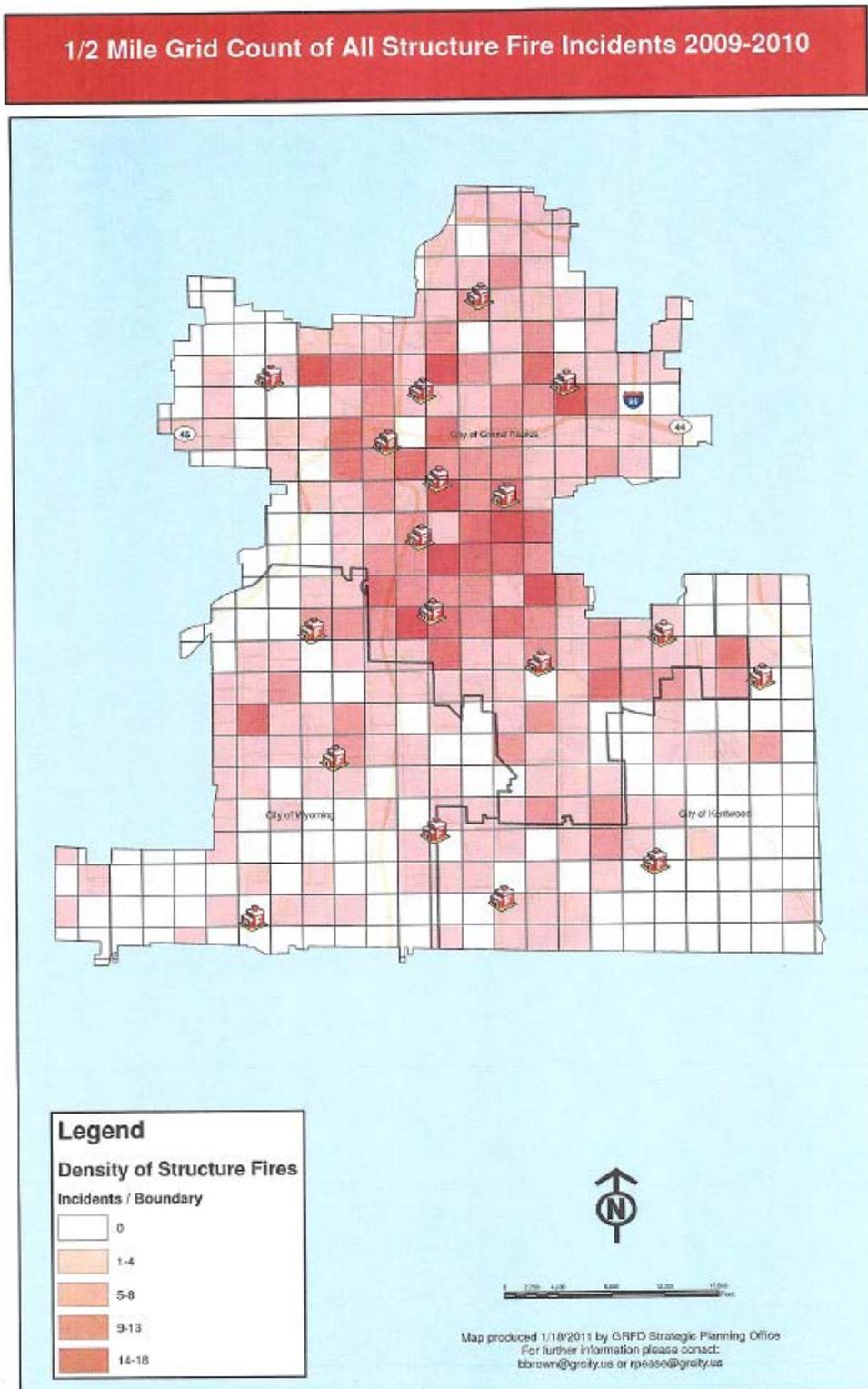


Figure 6: Structure Fire Demand

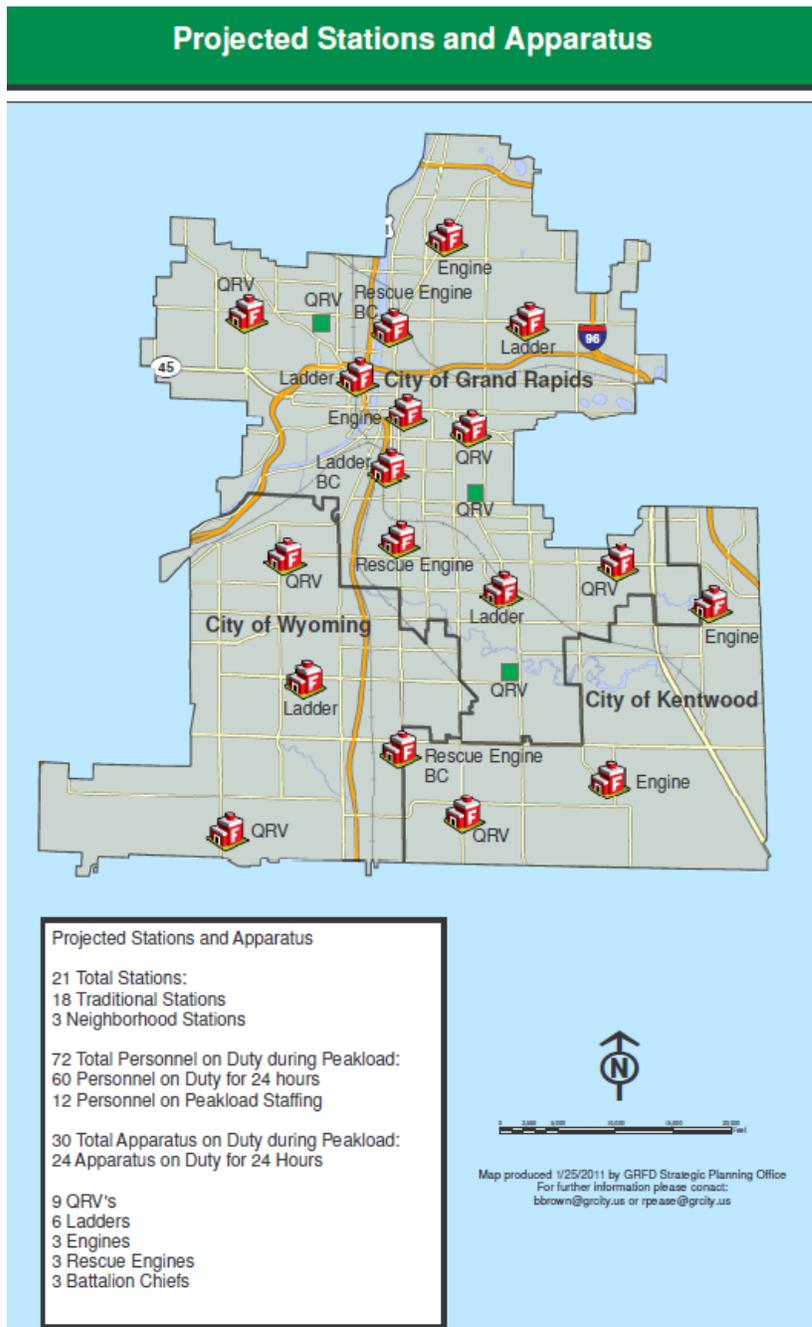


The three-city staff developed consolidation plan proposes 21 stations for the consolidated department. Thirty pieces of apparatus would be on duty each day; 24 pieces of apparatus would be staffed on a 24-hour basis, and 6 staffed only at peak demand times. The apparatus staffed 24-hours a day consist of 9 quick response vehicles, 6 ladder trucks, 3 engines, 3 rescue engines and 3 battalion chief vehicles. The incident peak demand would be covered by 6 additional quick response vehicles.

Three of the 18 stations identified in these communities are currently unstaffed. The ICMA fire team believes that it is unnecessary to move from 15 staffed stations to 21 stations, as proposed. This is particularly true if the cities adopt ICMA's recommendations for a more managed approach to EMS calls discussed later in this report.

The staff proposed plan includes three new neighborhood stations. These stations would deploy a quick response vehicle staffed by two personnel for each of the three platoons. ICMA believes these three additional stations could be removed from the proposed consolidation plan without impacting service delivery. The change would reduce the proposed staffing from 312 to 300 full-time equivalent (FTE) employees. This change would also make 4 employees available on each platoon for meeting staffing shortages on a daily basis due to vacation or sick leave. This change will result in an estimated savings of \$1.3 million. Figure 7 provides a map showing the location of stations and the assignment of apparatus in the consolidation plan proposed by staff from the three cities.

FIGURE 7: Staff Consolidation Plan: Projected Stations and Apparatus



In the separate reports prepared for each of the cities of Grand Rapids, Kentwood and Wyoming, the recommendations for staffing levels were reflective of the current and potential future financial issues faced by each. A total of 256 personnel were recommended with 177 in Grand Rapids, 39 in Kentwood, and 40 in Wyoming. This consolidation report proposes a staffing level of 256 which is consistent with the three reports. To accomplish this target requires an additional reduction of 44 personnel beyond the elimination of the Grand Rapids neighborhood stations. To accomplish this staffing target, the following is recommended.

- Eliminate the rescue engine proposed for the station on the border of Kentwood and Wyoming and relocate the Battalion Chief to be housed with the ladder company in Wyoming. This change reduces the proposed staffing by 16 personnel and results in a savings of \$1,680,000.
- Change three of the quick response vehicles (QRV) from 24 hour staffing to staffing only for a 12 hour peak demand period. (Covell, Burton, and the Kentwood QRV) This reduces staffing by 12 FTE personnel and generates an annual savings of \$1,260,000.
- Replace an engine in Grand Rapids (Plainfield) which is staffed on a 24 hour basis with a quick response vehicle which is staffed only for a 12 hour peak period each day. This modification results in a net reduction of 8 FTE personnel and generates an annual savings of \$840,000.
- Eliminate the quick response vehicle proposed for the northern area of Wyoming. This reduces FTE staffing by 8 and results in annual saving of \$840,000.

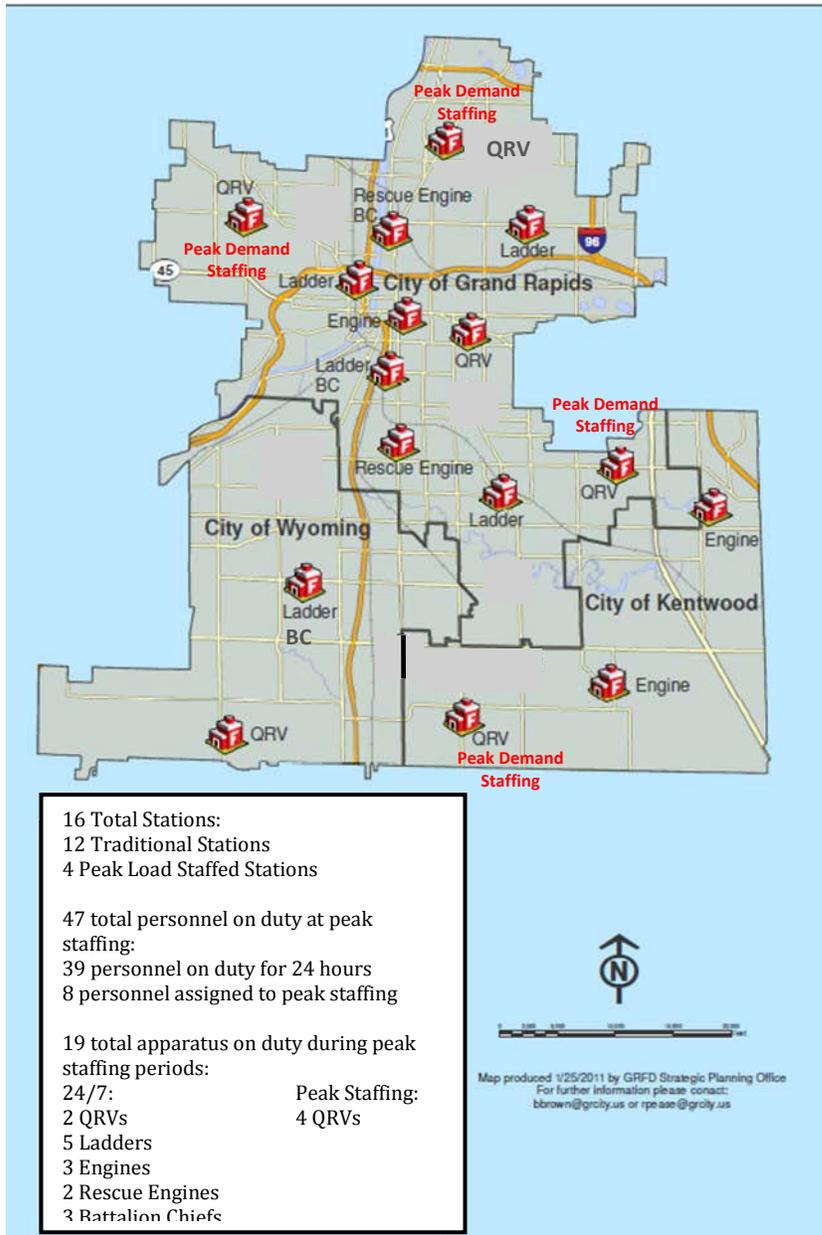
The four changes proposed above (estimated to be \$4.6 million), plus the elimination of the staff proposed neighborhood stations equals an estimated \$5.9 million in annual savings beyond the 1.3 million of estimated savings identified in the proposed staff consolidation report, for a total annual estimated consolidated department savings of \$7.2 million when compared with the current spending levels in the three separate departments.

The above changes are based on a review of run data and an analysis of the site geographic analysis between stations. Figure 8 illustrates the station configuration and apparatus deployment plan proposed above. This staffing plan would still retain the roving QRV's proposed in the staff consolidation report which would be placed in service where needed each day.

It should be understood as an outcome that staffing levels as proposed in the ICMA deployment plan will reduce overall response deployment and response times during certain periods of the day. However, it is still the judgment of ICMA that the plan as presented here will sustain a capable level of emergency service to citizens.

Figure 8: ICMA Proposed Station Configuration Plan

ICMA Recommended Stations and Apparatus



In discussions with leadership from all three cities it was requested that an additional option be prepared which represented a further reduction in the staffing level less than the 256 level proposed in the plan above, in the event of even more serious financial problems. To that end the cities could consider a revised plan which makes all of the reductions proposed above plus taking a ladder company (Bridge) out of service in the central area of Grand Rapids. This plan would result in a further reduction of 16 personnel and generate an estimated annual savings of \$1,680,000. This option is not recommended at this time.

Recommendation:

- ICMA recommends the staff consolidation plan should be amended to include only the 16 fire stations (12 traditional and 4 staffed during identified peak call volume time periods). This represents a reduction of 5 fire stations from the 21 stations that are proposed. The 16 fire stations would deploy fewer total apparatus and would be staffed by fewer personnel. These recommended changes would result in an estimated annual savings of \$5.9 million, and would make the consolidation plan staffing level consistent with the sum of the staffing outlined in the three separate city reports, which are 256.

Staffing

As can be seen in Figure 8, the consolidation plan recommends peak demand staffing. This is consistent with recommendations made by the ICMA team in the separate city reports and should be included in the merger plan.

The recent recession and resultant budget issues for local governments have forced communities to look at other staffing options for their fire departments, including staffing that is based on the demand for service as determined by how many calls for service are expected at different times of the day. Law enforcement agencies have used differential staffing for years, in recognition of a far greater need for staffing levels on Friday at midnight than on Sunday morning, for instance. Similar demand-based staffing would be of great benefit to the consolidated department. A review of the three cities' run data indicates a higher percentage of calls during the day than late at night and the early morning hours. This suggests that staffing could be reduced during these periods without impacting deployment capability. A peak or demand staffing pattern is recommended that uses fewer personnel during identified low call volume time periods by having some employees work a 12 hour peak demand shift.

Another challenge in the consolidation plan is to determine what should be the fate of the current paid on-call firefighters who are a part of the Kentwood and Wyoming fire departments. The ICMA team believes that the paid on-call system used in the Kentwood and Wyoming departments should be continued in the new consolidated department. This will provide greater flexibility for the department to use peak demand staffing, and will help to keep some staffing costs to a minimum. There will likely be a period of adjustment for merging the organizational cultures of a paid on-call approach with the overall full-time career consolidated department, but the flexibility that is provided by a combination department of this type represents a hallmark of a sustainable department in the twenty-first century.

In addition to the paid on-call system, the department should consider the use of part-time employees working the peak demand shift. These employees could potentially be certified firefighters who seek to obtain a full-time position with the consolidated department. Such an arrangement provides an opportunity for both the department and the part time employee to have a trial period to determine if a full time job as a firefighter with the

department is in the best interest of both. The use of part-time employees would also have the benefit of providing the same service with significantly reduced personnel costs, as part-time employees may not receive health insurance or participate in the pension system.

A final critical staffing issue is related to the reduction in personnel that will result from the above recommendation regarding the number of stations. The recommendation calls for the consolidated department to have fewer career personnel than are currently employed in the three departments. Although a positive financial outcome of consolidation, it is important that the staffing approach to consolidation be implemented with consideration to do so without a reduction in force if possible, to avoid a potential negative outcome of the consolidation. The reduction in the number of employees could be accomplished through attrition, or an employment transition program to another position the employee may be qualified for. This translates to potentially less savings in the short term, with full savings realized over the long term.

The success of consolidation will be judged on whether the consolidation plan results in a long term sustainable department that provides high-quality services to the citizens of the three cities. It should not be viewed as simply a way to balance next year's budget.

Recommendations:

- Demand-based/peak load staffing should be an integral part of the staffing plan for the consolidated department in recognition that calls for service is not dispersed uniformly throughout the 24 hour workday.
- The paid on-call systems in use in the Kentwood and Wyoming fire departments should be integrated into the staffing plan for the consolidated department.
- The consolidated department should consider the use of part-time employees to increase the flexibility in staffing in order to accommodate peak demand without adding unnecessary cost.
- Any reduction in personnel resulting from the establishment of the consolidated fire department should be accomplished only through attrition, not through reduction in force.

Emergency Medical Services

The approach to and methods of providing emergency medical services in the consolidation proposal are consistent with emerging best practices of EMS providers. The direction identified in the staff consolidation report also is in sync with the recommendations made by the ICMA team in the individual reports for each of the three cities, particularly medical priority dispatch and a greater reliance on having the private ambulance provider handle most calls without the involvement of fire-rescue personnel.

This section reviews several key components of a modern EMS system: quality management, system design, scope of practice, and response configurations. This last area represents the greatest opportunity for more efficient and effective service through the adoption of a medical priority dispatch system. The ICMA team supports the approaches

identified in the staff report, particularly the introduction of a comprehensive medical priority dispatch system.

Quality Management

According to the *Findings and Recommendations on Emergency Medical Services in Kent County* report,⁴ formal quality-management programs are in place in each of the ambulance services but are lacking in the medical first responder agencies. As with many fire department staffing situations, human resources are primarily dedicated to operational endeavors as opposed to administrative or support functions. In order to achieve an effective quality management program, there must be dedicated staff members working in an oversight capacity to develop a program framework, establish system performance measurements, and monitor compliance. Through a consolidation of department EMS resources, the appropriate support staff could be allocated to serve in this important area. Individuals would be tasked with working with other EMS system shareholders to develop a process improvement framework, which would provide a level of consistency in service delivery methods and thereby increase the quality of patient care.

EMS System Design

The components of an EMS system include an array of elements, such as a communications infrastructure, first responder support, response, on-scene activity and care, patient transport, performance specifications, provider levels, scope of practice, and prospective and retrospective medical direction.⁵ Response time is probably the most important and fundamental component of a system strategy for operational success. It drives other performance indicators and is usually the most significant aspect of what really matters in a community.

Traditional approaches to the deployment of limited resources have proven ineffective in reaching recommended response time standards for many fire and EMS agencies. The consolidation of resources and a more practical approach can help agencies improve response time and patient care. Dispatching response units from the closest station regardless of jurisdictional boundaries, implementing variations on system status management concepts, and up-to-date communications technology all aid in decreasing response times.

Scope of Practice

Increasing the scope of practice from medical first responder (MFR) to emergency medical technician (EMT) is vital to providing an efficient yet effective level of service to the communities of Grand Rapids and Wyoming. [The city of Kentwood provides EMS first response service at the EMT level] The costs associated with providing paramedic care are considerable compared to that of MFR or EMT. Moreover, EMTs use far more medical

⁴ Integral Performance Solutions, "Findings and Recommendations on Emergency Medical Services in Kent County," (Lakeland, FL.: Integral Performance Solutions, 2011).

⁵ Jeffrey M. Goodloe and Stephen H. Thomas (eds.), "Emergency Medical Services Evidence-Based System Design," *EMSA White Paper* (University of Oklahoma School of Community Medicine, July 2011), 19.

interventions today than they were permitted to use at the inception of the EMT responder level. In addition, recent medical research indicates that only about 5 to 10 percent of any urban EMS system's calls actually require interventions at an advanced life support level. Basic emergency medical technicians typically have the ability and capability to save lives depending on local system protocols and what the state allows in the EMS scope of practice.⁶ This key factor coupled with the number of receiving medical facilities within the area served by the three fire departments and the available ambulance resources facilitate reduced patient travel times. This makes the higher paramedic level certification unnecessary. Grand Rapids and Wyoming employees, who are only MFR certified, should be upgraded, however. Given the proposal to have fire department personnel of the consolidated department respond to only the most serious medical cases, the appropriate practice over time would be to raise all personnel to EMT certification.

Response Configurations

Reducing unnecessary emergency responses has been shown as a vital way to increase the level of safety for both patients and emergency responders. Fully employing medical priority dispatch system (MPDS) priority levels and codes to align response levels with the patient's condition, and the actual need for EMS resources will result in a safer, more efficient emergency medical system.⁷

One of the reasons EMS agencies have been reluctant to fully employ MPDS is the fear that a 911 call will be inappropriately classified as a no response situation. EMS agencies are concerned about the possibility of being found liable in a resulting lawsuit, but their concerns have not been substantiated. On the other hand, every year people are injured or killed in emergency vehicle collisions, sometimes resulting in litigation. In a ten-year study, the Denver EMS system reported that 59 of 82 claims (72 percent) against it were related to motor-vehicle collisions involving an ambulance, and these led to six lawsuits.⁸ With the proper quality improvement program in place, both at the communications and responder levels, full implementation of a no-response policy can help improve the EMS system.

Recommendations:

- The EMS service delivery models proposed in the staff consolidation report and in the ICMA individual city reports related to medical priority dispatch and a greater reliance on having the private ambulance provider handle most calls without the involvement of fire-rescue personnel, represent best practices and should be adopted by the consolidated department.
- The consolidated fire department should adopt a medical priority dispatch system and train all operational personnel to the level of EMT, so that it will provide efficient and effective emergency medical services designed to respond personnel and equipment of the consolidated department to only the most serious medical cases.

⁶ Goodloe and Thomas, "Emergency Medical Services Evidence-Based System Design," 19.

⁷ Goodloe and Thomas, "Emergency Medical Services Evidence-Based System Design," 12.

⁸ Goodloe and Thomas, "Emergency Medical Services Evidence-Based System Design," 12.

Governance

Two fundamental questions related to a new consolidated fire department need to be answered:

- How will the organization be structured?
- Who will have the authority to decide the major issues for the organization?

Three alternative governance policies could be used, each with its own pros and cons: (1) an interlocal agreement that establishes mutually agreed-upon roles and relationships; (2) the creation of a new fire authority with taxing power; or (3) the creation of a new fire authority without the power to tax. Each of these alternatives is discussed in this section. A final possibility—the establishment of a new fire district—is intentionally left out of this discussion. Lynn R. Harvey, a professor from Michigan State University, is among the experts who argue that fire districts are really methods of finance rather than governance.

Interlocal agreement: The first option would be to establish a formal interlocal agreement among the three cities approved by the city council of each city. Essentially, this would be a contractual arrangement in which the three departments would be merged and made a department under the control of one of the three cities. The other two cities then would contract for services from the city overseeing the department as the method used to provide their share of the costs.

Due to the larger size of the Grand Rapids Fire Department, the most logical arrangement in this option is that the three departments would be merged to become a department within the city of Grand Rapids. The cities of Kentwood and Wyoming would then contract for service from Grand Rapids.

Of the three options discussed in this report, this would be the easiest to implement. Kentwood and Wyoming could decide how much fire protection service they wished to provide and could contract with the city of Grand Rapids to accommodate the desired service level. The main downside of this approach is that it would be dominated by the city of Grand Rapids, both in appearance and in fact. Kentwood and Wyoming would be dependent on Grand Rapids to provide fire and EMS service to their communities. This option may be unattractive to Kentwood's and Wyoming's citizenry.

Fire authority with taxing power: Another option would be to create a fire authority pursuant to the Michigan Emergency Services Authority Act. One way of funding the new fire department would be to give the fire authority taxing power. A referendum of the citizenry of all three cities would be required to implement this option due to the taxing power granted to the authority.

The authority would function as a separate, independent, and distinct unit of government governed by articles of incorporation and a board of existing elected officials, city employees, private citizens, or any combination of the three. Essentially two service provider options would be available to the authority: It could hire all personnel and provide services directly, or it could contract with one of the cities to provide the service.

One advantage of a separate fire authority is that it would have significant capacity to manage the fire service without hindrance by other parties. In addition, giving the fire authority the power to assess taxes would protect it from the local budget problems of the participating cities. However, -from the taxpayers' standpoint this advantage might be considered a disadvantage. Some citizens would likely be concerned that the fire authority could result in a net increase in local taxes. A new tax could be established to fund the new fire authority, but there is no guarantee that cities would reduce their taxes by the same amount.

Furthermore, the percentage shares of property tax base for the three cities of the authority are currently 55%, 22% and 23% for Grand Rapids, Kentwood and Wyoming respectively. The current percentage shares of fire expenditures are 72%, 15% and 13% for Grand Rapids, Kentwood and Wyoming respectively. The result of relying on property taxes exclusively in a taxing fire authority would result in very significant increases in taxation for the citizens of Kentwood and Wyoming making consolidation highly unattractive to those cities.

Since having a fire authority with taxing power requires a referendum to establish, it is unclear whether it is a viable option. If city elected and appointed officials decided to move forward with this approach, more information should be gathered to assess the likelihood that citizens in Grand Rapids, Kentwood, and Wyoming would support the measure.

Fire authority without taxing power: Another, often more palatable option, would be to create a new fire authority that would not have the power to tax. Taxing power instead would remain with the cities of Grand Rapids, Kentwood and Wyoming. The ICMA fire team believes that this option would provide the best governance structure for the consolidated fire department for a number of reasons.

First, a nontaxing fire authority could be implemented more quickly because it would not require a referendum. In addition, instituting a fire authority without giving it taxing power has the advantage of turning over significant power over the authority to local elected officials. Elected officials would be responsible for funding fire and EMS services. Because they are responsible for weighing all public needs, they could determine the appropriate funding for fire and EMS in relation to other local services. This arrangement also would encourage greater cooperation between the consolidated fire department and other departments in all three local governments.

City staff has participated in considerable discussion about what to call the consolidated department. The ICMA team concurs that adopting a broader title, such as "West Michigan Fire Rescue Authority," would help to highlight the mission and scope of the consolidated department.

Recommendations:

- A new fire authority should be established to oversee the consolidated fire department, but it should not be given taxation power. Rather, the elected officials of the three cities should maintain control over funding. .

- West Michigan Fire Rescue Authority should be adopted as the official name of the consolidated department.

Board Composition and Powers

As stated above, the board of a fire authority could be composed of elected officials, local government employees, private citizens, or any combination of the three. Due to the significant size of the fire service budgets and the critical need for effective working relationships with other local government departments, the ICMA team recommends that the board should consist of one council member from each of the cities of Grand Rapids, Kentwood, and Wyoming. Each city council would select the member to represent it on this board.

The board should be given the authority to recommend the annual budget, confirm the appointment of the fire chief, and adopt a strategic plan for the department. The board should be required to meet at least quarterly. One meeting each year should be devoted to reviewing the budget for the next fiscal year and recommending funding levels for each of the three cities. The board should hold another meeting initially to begin the development of a long-range strategic plan and subsequently every two to five years to update this plan to keep it current. Once developed, the fire chief should present an annual report describing departmental activities and achievements at a strategic planning meeting. Additional meetings, particularly in the early stages of the department, may be needed to accomplish other specific objectives.

Recommendations:

- The authority should have a three-person governing board consisting of one elected official from each of the three cities.
- The board should meet at least monthly during the initial consolidation and quarterly thereafter. Specific responsibilities should include approving the proposed fire department budget and developing and updating a strategic plan for the department.

Administration

In general, there are two options for organizing a new consolidated department: (1) The authority could hire all employees, including direct service providers and administrative support staff; or (2) the authority could contract with one of the three cities—most likely Grand Rapids—to provide the requisite services. The ICMA team believes that the second option has several clear advantages. Most important, the authority would not need to establish a separate bureaucracy to support departmental operations. In addition, the cities have experience with a similar arrangement in the Kent County Dispatch Authority, which relies on the city of Grand Rapids to be the provider of dispatch services at its police location.

One of the most critical decisions to be made about the new consolidated department is the appointment of the fire chief. The chief should be selected on the basis of professional qualifications and experience. Although the city of Grand Rapids is proposed to be the

administrative home for the consolidated department, the cities of Kentwood and Wyoming also should be involved in selecting the chief. Specifically, the ICMA team recommends that all three cities should be actively involved in fire chief appointment decisions. The chief executive officers in Grand Rapids, Wyoming, and Kentwood should interview candidates and jointly make a recommendation to the board of the fire authority, which would then have the authority and responsibility for the final selection of the new fire chief.

It is further proposed that the termination of the fire chief could be made either by the Grand Rapids city manager or by a majority vote of the authority board. While such an arrangement is somewhat unusual, this would help to ensure that the spirit of partnership inherent in the consolidation effort continues into the future. The shared power further ensures that the fire chief can be held accountable by his or her supervisor, the city manager of Grand Rapids.

Recommendations:

- The West Michigan Fire Rescue Authority should be housed within the city of Grand Rapids for administrative purposes.
- All three cities should be actively involved in fire chief appointment decisions. The chief executive officers in Grand Rapids, Wyoming, and Kentwood should interview candidates and jointly make a recommendation to the board of the fire authority, which would then have the authority and responsibility for the final selection of the new fire chief.

Budget

Two central questions for any organization are “who will decide?” and “who will pay?” There is no activity which brings these questions into focus more sharply than the annual budget process.

The decision about the budget adoption process for the new consolidated department is a logical extension of the decisions that have already been made in the proposed establishment of the authority. Since it is recommended that the authority not have independent taxing power, it is clear that the three cities will still have funding obligations for fire and EMS services. The ICMA team therefore recommends that the authority board should have the power to recommend a funding level for the consolidated department, but the approval of all three city councils should be required for the budget to take effect. Elected members of the city councils should retain the final authority to set the funding level in their annual budget process.

The downside of this approach is that it may lengthen the budget process as the three cities discuss and resolve differences of opinion. The ICMA team believes that the adoption of a cost-sharing formula for the new department (discussed later in this report) will help the cities avoid gridlock in this matter.

Recommendations:

- The annual budget for the consolidated department should be recommended by the authority board and approved by all three city councils.

Sun setting Provisions

The ICMA team believes that the consolidation of the fire departments of Grand Rapids, Kentwood, and Wyoming would improve fire and emergency medical services for the citizenry of all three cities. It is therefore recommended that the three cities move forward to implement the plan.

However, there is often concern when changing to the new that one may later find that the change did not result in the anticipated benefits. To address these concerns, there should be a mechanism in place to assess the consolidation and determine whether to continue the arrangement for the long term. To that end, the ICMA team recommends that a sunset review provision should be included in the plan. It is suggested that the West Michigan Fire Rescue Authority be established for an initial period of ten years—long enough for the merger to be fully implemented and operating in a routine manner, but short enough for those who have concerns to see an opportunity for them to be addressed. After the sunset review, the authority would continue only through unanimous consent of all three cities.

Recommendation:

- There should be a sunset review of the consolidated fire department within ten years of its adoption.

Funding

The professional staff from Grand Rapids, Wyoming, and Kentwood spent considerable time in developing variations of formula for the “fair” sharing of the cost of the consolidated department among the three cities. Additional assistance was also sought from a team from Grand Valley State University. In the final analysis, the sharing arrangement needs to be comprehensive enough to capture the distinctions in the demand for service and the risk that is sought to be protected. However, any arrangement to fund a consolidated fire department needs to be simple enough to be understandable by the average citizen. After reviewing the various alternatives, ICMA proposes adoption of either the original cost-sharing formula or a revised formula with greater value placed on the actual risk of each city. Both formulae include factors related to population, area, population density, property value, incident history, and risk assessment to allocate costs. Using the original formula, the resulting budget share for Grand Rapids is 64.9 percent; Wyoming is 19.5 percent, and Kentwood is 15.6 percent, Figure 9 shows the components of this formula, their weighting, and the resulting budget percentages for each city.

FIGURE 9: Cost Allocation Formula

City	Population	Sq. Miles	Pop. Density	SEV	Incident History	High Risk Occupancies	Budget
Grand Rapids	197,800	45.3	4,366.4	\$5,192,219,200.00	18,709	1,301	\$26,680,205.00
Kentwood	45,255	21.0	2,155.0	\$2,045,559,700.00	3,956	185	\$5,568,900.00
Wyoming	69,368	24.5	2,831.3	\$2,229,233,900.00	4,863	225	\$4,730,760.00
TOTAL	312,423	90.8	3,440.8	\$9,467,012,800.00	27,528	1,711	\$36,979,865.00
Grand Rapids	63.31%	49.89%	126.90%	54.85%	67.96%	76.04%	72.15%
Kentwood	14.49%	23.13%	62.63%	21.61%	14.37%	10.81%	15.06%
Wyoming	22.20%	26.98%	82.29%	23.55%	17.67%	13.15%	12.79%
TOTAL	100.00%	100.00%		100.00%	100.00%	100.00%	100.00%
	POP	Sq. Miles		SEV	INC	High Risk Occupancies	TOTAL
	25%	5%		20%	30%	20%	100%
Grand Rapids	15.83%	2.49%		10.97%	20.39%	15.21%	64.89%
Kentwood	3.62%	1.16%		4.32%	4.31%	2.16%	15.57%
Wyoming	5.55%	1.35%		4.71%	5.30%	2.63%	19.54%
TOTAL	25.00%	5.00%		20.00%	30.00%	20.00%	100.00%
Grand Rapids Share	\$23,995,498.10						
Kentwood Share	\$5,758,819.56						
Wyoming Share	\$7,225,547.34						
TOTAL	\$36,979,865.00						

The next cost allocation formula increases the share of the formula attributed to risk from 20% to 30% with reductions in the population and incident history categories by 5% each. This formula recognizes the important distinguishing characteristic of risk which is found in each of the three cities, and the deployment required to service this risk. Communities that have increased or higher risk require a more comprehensive response and therefore, in our judgment, costing for these communities' should be weighted more heavily than in the earlier proposed formula. When this revised formula is applied the allocation share are 65.8%, 18.9% and 15.3% for Grand Rapids, Wyoming and Kentwood respectively. Figure 10 shows the allocation resulting from the application of this recommended formula, and is estimated to fund the consolidated department based on suggested deployment levels in Figure 8.

Figure 10: Adjusted Cost Allocation

City	Allocation	Budget
Grand Rapids	65.8%	\$19,609,000
Wyoming	18.9%	\$5,632,000
Kentwood	15.3%	\$4,559,000
Total	100.0%	\$29,800,000

While the cost-sharing formula is an attempt to determine an equitable way to allocate cost, there is another factor to be considered. It is clear that the adoption of the consolidation plan will result in a more efficient and effective fire protection service collectively for the citizens of each of the three cities. While improvements in service to the public should be incentive enough, it is understood that it may be difficult for one or more of the cities to join the consolidation effort if it potentially may result in a higher budget for fire service than it currently has in place, and that it can afford in the short term. Therefore, there needs to be

enough of a financial and service delivery value to make the consolidation plan appealing to all parties. To that end, the ICMA fire team strongly suggests that the three cities agree to phase in the implementation of the cost allocation formula. While the final phasing-in plan will likely require further discussion among the three cities, the following approach provides a starting point:

- Adopt a formula as the long-term equitable cost allocation plan.
- Establish a provision that in each of the first three years, no city is required to pay more than they are paying in the current fiscal year. While one or more cities may have to pay more than the formula would dictate, with the savings resulting from consolidation, each city should still benefit financially and from an overall improved service perspective.
- In years four through seven there should be a phasing in of one-fourth of the distance between the year-three budget payment and the amount required by the formula.
- Beginning in year eight the formula should be followed.

Phasing in the consolidation funding plan will be an important component in the successful implementation of the merger initiative. Without financial appeal to all, chances for success are limited.

Recommendations:

- Funding for the consolidated fire department should be provided through a shared formula adopted by the three city councils that is based on a modification of the original cost allocation plan, which would place a greater value on the difference in risk between the three cities.
- Funding for the merged organization should be phased in over a seven-year period with a guarantee that for the first three years no city would be required to pay more than it was paying for fire service in its current budget year. Changes would be phased in over the next four years in accordance with the adopted formula.

Functional Consolidation

While a complete consolidation of the Grand Rapids, Kentwood, and Wyoming fire departments is the recommended course of action, there may be reasons that cause one or more cities not to pursue a full merger. If full consolidation proves untenable, it is strongly recommended that the three cities still consolidate specialized services.

In functional consolidation, organizations merge like functions while retaining the mission-critical functions. Grand Rapids, Kentwood, and Wyoming fire departments would each benefit from the functional consolidation of, at a minimum, training, hazardous material (HAZMAT) response and technical rescue. These services are all extremely important and can be costly when provided by a single community. Based on current funding and

deployment strategies, it does not appear any of the three cities by itself could provide these functions at the same level as perhaps if it is provided by a single, consolidated function serving all three departments. While these are the most obvious consolidation opportunities, the cities may identify other potential areas as well such as fire prevention, investigation, and public education. Due to the size and the breadth of the activities of the Grand Rapids Fire Department, it is recommended that most services merged as part of this functional consolidation should be integrated into the Grand Rapids Fire Department.

All three of the cities have very limited training programs. Employees in all three departments are underserved in the area of training. The most extensive training program is the Grand Rapids Fire Department, which has just two staff members dedicated to training for the entire department. A consolidation of training resources, including staff and equipment, would enable all three departments to better meet the needs of employees at all levels, from recruit training, to basic refresher courses, to highly specialized training required for special response teams.

HAZMAT response requires specialized types of equipment and a significant amount of targeted training on how to respond to an event that may involve handling of a hazardous material. An example might be the derailment of a train carrying a chemical such as chlorine or ammonia. Such an event could take place in any of the three jurisdictions. The response to such a situation must be rapid and must be undertaken by personnel who are highly trained in utilizing highly technical equipment. HAZMAT events, though serious, are relatively rare. These characteristics make HAZMAT response a good candidate for consolidation. Although all three fire departments currently have HAZMAT response capability, none of the three departments can provide the same level of service as would be enabled by a joint effort.

Best practices suggest that the optimal situation is to have one fire department own all the HAZMAT response equipment and provide the majority of personnel in handling a HAZMAT threat. In this case, the other two departments should have personnel who are also trained to respond, but they would do so under the direction of the lead agency.

Like HAZMAT response, technical rescue is a very specialized response. This could include an event like a trench cave-in where workers of a utility company are buried. Again, specialized equipment and intensive training are requirements for handling such a rescue; again, such rescues are rare occurrences. As with HAZMAT response, technical rescue is an area that would benefit from having one fire department serve as the lead agency and maintain most of the technical rescue equipment and personnel

While any of the cities could serve as the lead agency for training, HAZMAT response, technical rescue, airport crash rescue, and any other consolidated functions, the larger size of the Grand Rapids Fire Department make it the most logical choice. The best approach would likely be an interlocal agreement whereby Kentwood and Wyoming would contract with Grand Rapids for access to the service in exchange for a set fee.

The arrangements for functional consolidation should be long enough to ensure successful consolidation implementation and a reasonable time to judge success. However, the period should not be so long that a party with unresolved concerns is unable to see a window for pursuing a different course of action. The ICMA team believes that ten years provides adequate time for implementation and assessment of a functional consolidation.

Recommendations:

- While full consolidation of the three departments is the recommended course of action, in the event that plan is not adopted, the three cities should pursue functional consolidation of specialized services, including training, hazard material response, and technical rescue.
- Services that are combined as a result of functional consolidation would be best administered by the Grand Rapids Fire Department.
- If functional consolidation is pursued, it should be funded by a ten-year interlocal agreement whereby Wyoming and Kentwood contract for services from the city of Grand Rapids.

Police/Fire Consolidation

While making the site visit to Wyoming, the ICMA team was asked about the public safety officer arrangement. In this section, we respond to that inquiry. It should be noted that the recommendation of the ICMA fire team is for the full consolidation of the three fire departments rather than a recommendation for the public safety officer model.

Since the beginning of the economic recession of 2008 and 2009, police and fire agencies have found it increasingly difficult to maintain proper staffing levels and provide basic police and fire service. Decision makers have sought to respond to these challenges in several ways, specifically in the interest in regionalizing, consolidating, or sharing police and fire services. Michigan has led the way in consolidation of public safety services, but it is likely to occur increasingly often elsewhere as well. Such efforts can be complicated by collective-bargaining agreements that reduce flexibility by mandating minimum staffing levels.

Nevertheless, the traditional reluctance to cut public safety funding has given way to unprecedented changes. Localities seeking to reduce the cost of government increasingly scrutinize public safety, which is often the largest service in their budget, and personnel costs, which is inevitably the largest portion of the public safety budget.

There are four basic models of public safety consolidation, which are on a continuum from full consolidation to nominal consolidation:

- Full consolidation, with full integration of police and fire services, public safety officers cross-trained in both police and fire services, and a consolidated management and command;

- Partial consolidation, with partial integration of police and fire services, cross-trained public safety officers working alongside separate police and fire personnel, and consolidation limited to select positions within the organization's hierarchy;
- Functional consolidation, in which police and fire services are not integrated, but consolidation occurs within middle or upper management; and
- Nominal consolidation, in which police and fire services are not integrated and there are no cross-trained public safety officers, but in which separate police and fire services may share facilities or training and dispatch resources and a public safety director may oversee separate police and fire services.

Among the benefits of police/fire consolidation are possible increases in efficiency, augmentation of fire staffing, promotion of community policing, and enhancement of efforts in community safety and homeland safety preparedness. Consolidation can make more staff continuously available to respond to a wider variety of calls. It also reflects an evolution in firefighting from fire suppression to emergency medical services. Consolidation also can reduce duplication of administrative, communications, and physical infrastructure.

By making more staff available for a wider variety of calls, consolidation also can enable and encourage new efforts, such as community policing and problem solving. A consolidated department with a larger total staff provides increased access to staff and flexibility in deployment. Expanded roles may also attract officers with broader skills. Increased efficiency of public safety departments can also help avoid reduction in fire staffing or elimination of community-policing activities.

Consolidation also can enhance community safety and homeland security preparedness because it facilitates improved communication among all public-safety personnel, unified command structures, planning for all-inclusive emergency responses, and comprehensive training.

Police/fire consolidation is a growing trend. As of September 2011, more than 150 agencies across the United States have been identified as having some form of public safety consolidation, with consolidation most prevalent in Michigan. Although nearly 15 agencies in Michigan have deconsolidated in the past decade, many agencies have recently adopted the model or are actively considering it.

ICMA conducted independent operational analyses of the Grand Rapids, Kentwood, and Wyoming fire departments. These reports did not analyze the feasibility of the public safety officer model, but a member of the ICMA team with specific expertise on this model reviewed the individual reports to provide guidance. Based on this in-depth review, the ICMA does not recommend the merger of police and fire operations in the city of Grand Rapids or Kentwood. A few of the obstacles to a consolidated police/fire department include:

- Significant upfront costs (training, equipment, backfill);
- Labor issues; and

- A political climate that may not be supportive.

In addition, the operational analysis far better supports full consolidation of the three fire departments rather than a merger of police and fire functions.

The merger of police and fire operations in the city of Wyoming, on the other hand, is worthy of consideration only if the city chooses not to pursue consolidation of its fire department with Grand Rapids and Kentwood. This recommendation is based on the current fire staffing level in this city. The public safety officer concept potentially would enhance deployable fire suppression resources, and enhance certain police functions as well.

The ICMA team strongly believes that citizens in all three cities would benefit most from a total merger of the three fire departments.

Recommendation:

- If full fire department consolidation is not carried out, the city of Wyoming should pursue further analysis of a possible merger of police and fire departments utilizing the public safety officer concept.

Outcomes/Benefits/Next Steps

Consolidation of public services presents many challenges. Included in this report are suggested deployment alternatives for fire services consolidation and alternative service delivery methods. These include a staff proposed consolidation and a staffing and deployment method created by ICMA specific for this project. Additionally ICMA has estimated significant cost savings for a consolidated fire service as discussed in this report. The ICMA deployment and cost recommendations are based largely on a desire for each city to provide fire services more efficiently yet remain effective in the delivery of fire services and some first response emergency medical services calls. Each city is self-tasked with matching available revenues to expenditures across all departments and activities it provides public services from. Currently each city is either seeking solutions to sustaining their fire department budget, or reducing the fire department budget as they no longer have the revenues to match the expenditures of their current deployment model.

The outcomes and benefits of this proposed consolidation of fire services are evident in this report. The primary outcome and benefit is the estimated overall cost savings a consolidated fire department can realize. An additional outcome is the modified and more efficient deployment of resources across each community, which includes a non-traditional staffing model (peak demand staffing), the introduction of quick response vehicles (some already deployed in Grand Rapids), and modification through a comprehensive emergency medical dispatch system of fire services deployment on EMS first response calls. Further outcomes include improved administrative and training outcomes achieved through either a full or functional consolidation, a functional consolidation alternative that can be initiated now at a minimal cost, and a managed approach to funding a consolidated fire department and potential workforce impacts.

One outcome that may occur in the short term, and which will be based on the final costing formula, is that some communities may initially fund the consolidated fire department at a higher level than how they currently fund their individual fire department. However, the overall benefits of the consolidated department for those cities that may be faced with this as a decision point include: experienced staff from which to draw from to include managers, planners, fire prevention and education staff, and command officers; the sharing of overall resources and equipment; the sharing of the total deployment model; the ability to adjust deployment of resources based on community demand and risk.

As communities engage in consolidation, in this case fire services, there are key performance measures that should be considered. These performance measures will link to the planning process of how the consolidated fire services will be measured, and in some cases, what the sustained cost will be. Additionally, when considering costs, funding mechanisms, and service deliverables, there are several variables that drive the final decision-making process for consolidation.

Key Performance Measures

1. Ratio of fire code violations cited/corrected within 30 day period. (*Fire Prevention-measure effectiveness of Fire Prevention program*).

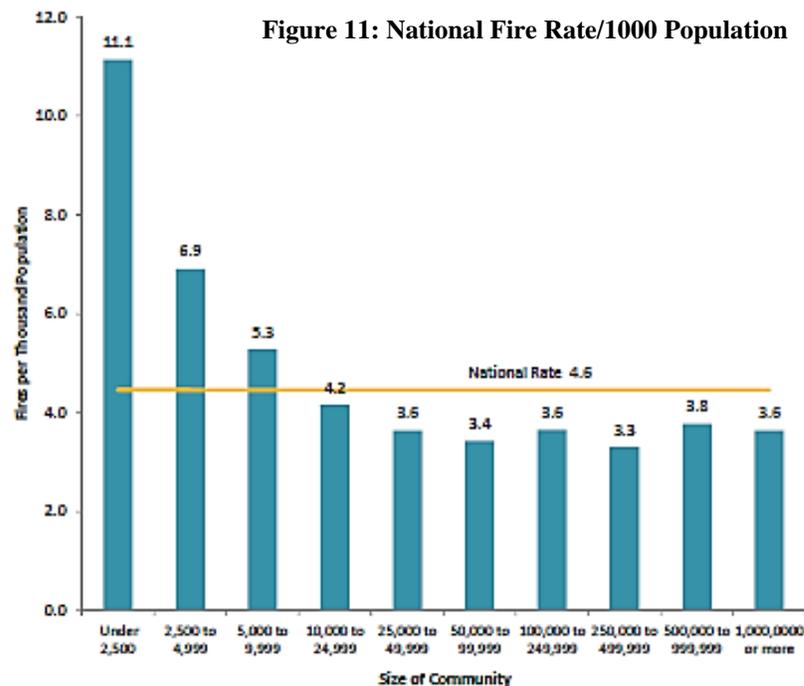
Fire suppression and response, although necessary to protect property, have little impact on preventing fire deaths. It is rather public fire education, fire prevention, and built-in fire protection systems that are essential elements in protecting citizens from death and injury due to fire.

Effective fire prevention efforts depend on the ability for a fire department or agency within a local government to conduct fire prevention inspections through a code enforcement program. One measurement of this program is the correction of code violations found. When a code violation is discovered, a suitable period to correct the violation is established through a written report⁹. In this measurement 30 days is recommended, as this a norm in fire departments ICMA has studied and that the ICMA team is familiar with.

2. # of reported fires/1,000 population (Fire Prevention-measure effectiveness of Fire Prevention program).

This measure links with measure #1. As discussed in this measure, fire suppression and response, although necessary to protect property, have little impact on preventing fire deaths. It is rather public fire education, fire prevention, and built-in fire protection systems that are essential elements in protecting citizens from death and injury due to fire.

Figure 11, from the *NFPA Fire Analysis and Research Division*, illustrates the national fire rate (structure and outside fires) per 1000 population of varying sized communities (2007-2011).



⁹ Swain, J., *A Practical Guide for Local Government*. 2009, p.344.

3. Average response time per fire incident call (*Fire Suppression-measures effectiveness of fire station location and efficiency of road networks, e-911 center call processing, and crew turnout time*).

The location of responding units is one important factor in response time; reducing response times, which is one of the key performance measures in determining the efficiency of department operations, often depends on this factor. The goal of having a network of responding fire stations in a single community or a consolidated fire department of several communities is to optimize coverage with short travel distances, while giving special attention to natural and manmade barriers and response routes that can create response-time problems.¹⁰ Additionally, a community's fire risk analysis and the agency's pre-incident planning process will contribute to determining the number and type of fire units needed to adequately respond to a reported fire.¹¹

Meeting NFPA-recommended standards for travel time can increase a fire service agency's cost, which raises two questions: *what are the added costs* and *what is the evidence supporting these recommendations?* For fire suppression, NFPA travel times are established primarily due to the risk of flashover as shown in the fire propagation curve (Figure 12).

According to fire service educator Clinton Smoke, the fire propagation curve establishes that temperature rise and time within a room on fire corresponds with property destruction and potential loss of life.¹² At approximately the 10-minute mark of fire progression, the fire flashes over (due to superheating of room contents and other combustibles) and extends beyond the room of origin, thus increasing proportionately the destruction to property and potential endangerment of life. The ability to quickly deploy adequate fire staff before flashover thus limits the fire's extension beyond the room or area of origin.

Regarding the risk of flashover, the authors of an IAFF report conclude:

Clearly, an early aggressive and offensive initial interior attack on a working structural fire results in greatly reduced loss of life and property damage. Consequently, given that the progression of a structural fire to the point of "flashover" (the very rapid spreading of the fire due to super-heating of room contents and other combustibles generally occurs in less than 10 minutes), two of the most important elements in limiting fire spread are the quick arrival of sufficient numbers of personnel and equipment to attack and extinguish the fire as close to the point of its origin as possible.¹³

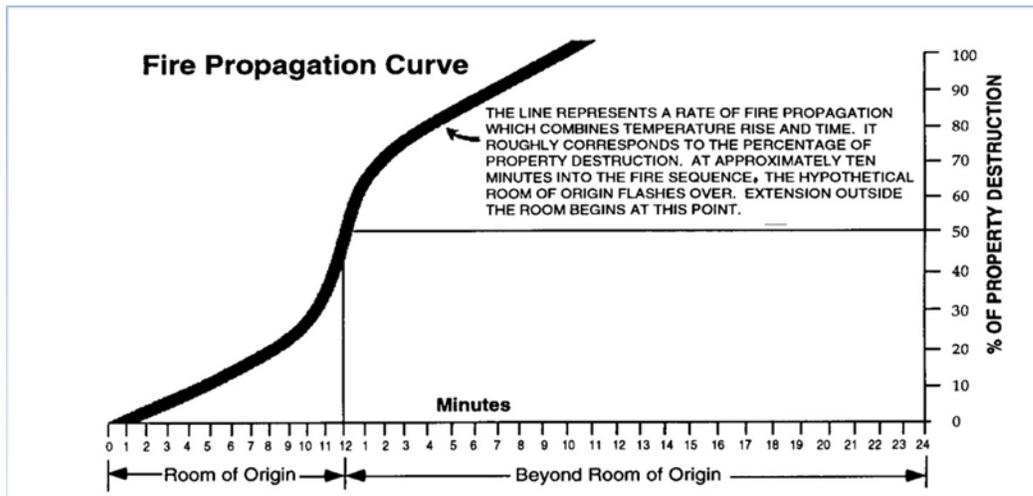
¹⁰ NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Departments, 2010 Edition, 122.

¹¹ Compton and Granito, eds., *Managing Fire and Rescue Services*, 52.

¹² Clinton Smoke, *Company Officer* (Clifton Park, NY: Delmar Learning, 2004).

¹³ *Safe Fire Fighter Staffing: Critical Considerations* Second Edition (Washington, DC: International Association of Fire Fighters, 1995).

FIGURE 12: Fire Propagation Curve



4. % of fires responded to that spread beyond room of origin after fire department arrival (*Fire Suppression-measures effectiveness of fire station location, response times, training, and crew effectiveness*).

This measure has a direct link to the measure #3, and as well the fire prevention and training performance measures contained herein. The ability to quickly place well-trained fire suppression forces on the scene to aggressively attack an active fire reduces property loss. As well an aggressive fire prevention and public education (such as a residential smoke alarm or sprinkler program) effort shares in the positive increase in this measure.

5. % of firefighters with completed, up to-date training (*Training-measures the effectiveness of the training program and the preparedness of the workforce*).

Preparing the workforce for the delivery of emergency services is a critical component of any fire department. Response to emergencies and subsequent deployment of critical tasks to mitigate the emergency should be second-nature, deliberate and sharpened through continuous training. This measure links to staffing and deployment discussion contained in this report.

6. The average time in seconds from the receipt of a call until a unit is responding (*Emergency Communications-measures efficiencies emergency dispatch is issued to a response unit, and the emergency unit is of staff*).

Call processing time and turnout time both have a direct impact on how quickly emergency units respond to a call for assistance, are components of the overall response time of an emergency unit, and are components of response time that can be directly controlled. As discussed in this report, where the primary public-safety answering point is the communications center, as a benchmark the alarm processing time or dispatch time should

be less than or equal to 60 seconds 90 percent of the time.¹⁴ Additionally, turnout time should be less than or equal to 80 seconds for fire and special operations 90 percent of the time. Combined, the unit(s) should be underway to the emergency in less than or equal to 140 seconds (2.3 minutes). Monitoring these components is important as it directly links to measures discussed such as response time and % of fires contained/not contained to room of origin.

Variables to Consolidation

There are many variables that drive a consolidation decision for a community, and that create apprehension regarding consolidation. Variables that drive a need or want to consolidate include: What are the financial savings? What service enhancements would my community realize? What is the best option for my community? Conversely, consolidation apprehension is driven by: Will service in my community change or decline? What are the costs and will it cost more? What happens to employees?

Until a consolidation option is chosen, and all communities wishing to participate have been determined, ICMA is only able to provide estimated savings and funding feasibility alternatives based on a three community consolidation. Key variables to consider consolidation or that create apprehension about consolidation discussed herein are not meant to be all inclusive, but rather to stimulate further conversation and considerations regarding consolidation and service delivery alternatives contained in this report.

Additional variables include:

- If full fire services consolidation is chosen and all three communities participate:
 - What community will serve as the lead agency?
 - How is the new agency governed?
 - Who will be the Fire Chief?
 - What will happen to the other Fire Chiefs/Deputy Chiefs etc.?
 - How will redundant FTEs (if any) be reduced from the new consolidated department? Attrition, reduction in force?
 - How are labor contracts merged-can they be?

- Is it feasible for all three (3) communities to consolidate services under full consolidation?
 - What formula for cost-sharing will be utilized?
 - Will this be more or less than what a community currently budgets for fire services?
 - Should a community that does not have the resources to adequately serve its community (based on call volume and present aide received) pay an additional cost? If a community has less demand would they pay less?
 - Can a community contract with the new department and procure parts of the consolidation—on a community's immediate border?

¹⁴ NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Departments, 2010 Edition, 7.

As these and other variables and determining factors are answered, a more defined cost for the consolidation can be determined.

The merger of the fire departments of Grand Rapids, Kentwood, and Wyoming has been the subject of discussion for over three years. It is now time for the community to decide whether it wishes to proceed with the consolidation plan. Nothing makes a decision more real than to set a deadline. While there will still be the need for a some amount of further analysis by local professionals, particularly as it relates to the service and funding levels necessary to reduce structural budget deficits, it is reasonable to believe that a firm decision can be thoughtfully made by each of the three cities within a few months of the receipt of this report. Therefore, the ICMA team recommends that the city council of each of the three cities set a deadline of April 30, 2013, for making a decision about whether to move forward with consolidation. Assuming a positive vote, staff should then be tasked with developing a specific time schedule for implementation of the consolidation plan.

Recommendation:

- The three city councils should adopt April 30, 2013, as the deadline for deciding whether to proceed with consolidation. Upon approval, the cities should establish a timeline for implementation of the consolidation plan.