

**Resident's Concerns  
About Insufficient Fire and Medical Emergency Services  
In Duluth, Minnesota**

Coalition of Residents (COR)  
Dennis Hoelscher

Presented to the Mayor, City Council, and Fire Chief  
of Duluth, Minnesota

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## Opening Statement

The most important governmental functions in a municipality are emergency fire and medical services. When these kinds of incidents occur, expectations are there is a fast response, including the necessary equipment and personnel. Our belief is the city of Duluth lacks the number of personnel and their level of training when responding to these emergencies. These conditions need immediate remedy.

In 2012 Duluth City officials contracted a private consultant, System Planning Corporation (SPC) TriData Division, to perform a detailed analysis of these services. The result of that analysis was an eighty-three page report titled:

**COMPREHENSIVE STUDY OF THE DULUTH FIRE DEPARTMENT March 2012**

Residents used that Report, other data, and first hand knowledge of the community in producing our Report.

The Introduction of the *Comprehensive Study of the Duluth Fire Department (CSDFD)* states the need for local government officials working with the community on issues relating to fire and emergency medical services:

*“The major steps for a deployment analysis include .... working with the public ..... to determine response time goals for the community as a whole or by individual planning areas .... and measuring current and potential performance” (CSDFD p.2)*

In the last several years the writer of the resident's Report *Resident's Concerns About Insufficient Fire and Medical Emergency Services in Duluth, Minnesota (RCFEMS)* communicated with the Duluth Fire Department (DFD) and elected officials about concerns with fire and emergency medical services. Fire Department officials have been very open and cooperative in these discussions. Elected officials failed engagement in the process. This is the basis for production of the following presentment.

The following is taken from the System Planning Corporation's Report:

## **INTRODUCTION**

*“The City of Duluth Fire Department (DFD) requested the assistance of an outside firm to provide a comprehensive analysis of fire and emergency medical service delivery.*

*The purpose of this analysis is to seek improved service delivery while maintaining acceptable levels of service to the community.” (CSDFD p.3)*

(underscoring mine)

## **Study Objectives**

*“ The overall goal of the study was to assess the efficiency and effectiveness of the Duluth Fire Department so that the City will be better able to develop a sound vision for the fire services in the future and develop a plan for achieving that vision.*

*In particular, the city is seeking answers to the following questions:*

- 1. For a fire department of this size and make-up, what is the appropriate and most effective management structure and functional responsibilities of each management level?*
- 2. How can fire personnel best be utilized given the current and future demand for fire department services and available resources?*
- 3. Within the fiscal constraints of existing budgets, what is the appropriate staffing for each functional area of the department? What if only operational issues are considered?*
- 4. Evaluate the current EMS program of Duluth Fire and recommend changes that can be made to improve efficiency and services. In addition, evaluate the feasibility of the fire department becoming an advance life support transport department. Will the expected revenues offset the cost of the program? Will this result in improved, more cost effective patient care for the citizens of Duluth?*
- 5. Evaluate the effectiveness of the current fire district and fire station location based on response data and other relevant metrics compared with national norms. What changes in the district or station relocation/consolidation/additions should be considered to become more efficient and meet the future response needs of the community?*
- 6. Evaluate the effectiveness of the fire training program. Make recommendations for improvements where needed.”(CSDFD p. 3-4)*

(underscoring mine)

**Resident's  
Three Areas of Concern**

**Inadequate Staffing of Apparatus with Personnel**

**Failure in Providing Advanced Life Support Treatment**

**Planning Area 5 (Park Point) Absent Fire & Medical Emergency Services When the Bridge is Up**

Area I

**Inadequate Staffing of Apparatus with Personnel**

The average resident, and equally elected officials, have a limited understanding of how fire and medical emergency services operate. What people find most important is they call 911 and a fire truck or trucks, or an ambulance shows up.

The logistics of what happens between their phone call, and the responders arriving, is complex:

Factors that impact the response go far beyond the phone call e.g.

Where are the responders coming from (what station or stations) ?

What specific kind of apparatus is needed (Engine, Ladder, Rescue, Quint, Water Craft etc.)?

Do personnel have the necessary training and skill sets for this specific type of incident?

Are there an adequate number of personnel responding?

Are there other calls for service at the same time?

What are the locations of that or those other calls?

What specific apparatus (types) are responding to those calls?

What station(s) are they coming from?

When more than one incident is happening are apparatus with personnel being moved from their normal station to another station so they are located more strategically for responding to any new calls?

If a sizable number of personnel are on calls, will additional personnel, who are on their days off, be called back to work?

These are some of the many factors occurring day by day in providing fire and emergency medical services in a community.

Fire and emergency medical services are complex and specialized professions. There are basic skills all Fire Fighters learn and practice. However there are also a number of very specialized skill sets. The training and skill levels for these tasks are given to a limited number of individuals. Training every Fire Fighter in every skill set is impractical.

Personnel are assigned to specific types of equipment (apparatus) i.e. engines, trucks, rescue, quints etc. These individuals are trained in the special skill sets needed in performing functions those apparatus are responsible for. A minimum number of personnel are needed for effectively and safely carrying out those functions. They work as a team and each member is essential. The success in saving lives and or property critically depends on the team having each of its members, with their unique skill sets, and the necessary equipment.

Fire Fighter functions are so critical that **Federal and State Occupational Safety and Health Acts** established regulations requiring a minimum number of personnel present before emergency fire operations can be undertaken. The minimum number is four personnel. (*"per OSHA 29cfr.1910 regulations. All units with less than 4 personnel however must not initiate emergency operations until the second unit arrives..."*) (CSDFD p.68) [specifically OSHA 1910.134(g)(i) & 1910.134(g)(ii)]

Subsequent to the CSDFD the DFD has reconfigured apparatus and personnel.

As of November 2014 those configurations are:

Engine 1, 4 crew

Rescue 1, 3 crew (Does not function as a direct fire attack apparatus due to no water or pump)

Truck 1, 4 crew

Engine 2, 4 crew

Quint 4, 4 crew

Engine 6, 3 crew

Engine 7, 4 crew

Quint 8, 4 crew

Engine 10, 3 crew

Engine 11, 2 crew

The DFD currently has ten apparatus in service operating out of eight stations. Three of those apparatus fail to comply with minimum staffing requirements under OSHA regulations. 30% of DFD fire apparatus are not adequately staffed with personnel.

Engines 6 and 10 are each one slot short, and Engine 11 is two slots short. Rescue 1's current apparatus does not have water or pumping capabilities, hence personnel are not part of the direct fire attack.

This is a shortage of 12 personnel.

Failure to meet minimum OSHA personnel requirements means when the first apparatus arrive on the scene of a fire, personnel may not be allowed to initiate emergency fire suppression operations. They cannot enter the structure and commence a fire attack. Fires quickly accelerate in intensity and immediate intervention is critical. DFD apparatus, without minimum personnel, means these operations are delayed. This condition is unacceptable and needs immediate correction.

The CSDFD said nothing about hiring additional Fire Fighter personnel, and in doing this ignored OSHA and NFPA regulations and national standards.

They used a mathematical formula in determining adequate staff of Fire Fighter personnel. The Report's formula was based on "leave data for all fire personnel in a year". (CSDFD p.54)

However the Report did state:

*"TriData in the over 200 studies we have performed has not experienced a staffing profile quite like DFD's. In many respects we found it quite inconceivable in terms of fire industry standards and operating procedures to find engine companies staffed with one and two personnel, which actually respond to emergency fire calls."* (CSDFD p. 52).

It is confusing and inconsistent using a mathematical formula in determining adequate staff of Fire Fighter personnel, but not incorporating OSHA and NFPA regulations and standards.

One of the key CSDFD "Studies Objectives" was:

*"what is the appropriate staffing for each functional area of the department?"* (CSDFD p.1)

Common sense would dictate that number should be the minimal number of personnel on apparatus for meeting OSHA regulations and NFPA standards.

The CSDFD did recommend hiring a Deputy Chief. Fires are put out and medical emergencies are given treatment by personnel on the street (Fire Fighters) not Chiefs. What is needed are rubber boots on the ground. Having an adequate number of personnel first on the scene is what saves lives and puts out fires.

Resident's proposal #1:

**The Duluth Fire Department is short 12 Fire Fighter personnel and this needs to be immediately rectified.**

## Area II

### **Failure in Providing Advanced Life Support Treatment**

Medical emergencies demand the fastest and most effective care. This concept needs no explanation. DFD officials recognize the importance of this service. The following is taken from the DFD Fire Department Web Site under Emergency Medical Services:

*“Preserving life has been part of the fire department's mission since inception.....*

*In the mid-1970's, as the importance of pre-hospital care took hold in Minnesota, the fire department began exploring EMS as a formal function. Instead of waiting for an ambulance for eight minutes or more for defibrillation, CPR, breathing assistance, oxygen, first aid, etc., firefighters were on the scene within four. For Duluthians, this improvement in service was unprecedented. Today, approximately 65% of the department's calls are medicals. As such, firefighters review EMS often. They practice and hone skills in the stations, in the field, and off-duty. Several firefighters are paramedics . . . All personnel are required to be Emergency Medical Technicians.”* (underscoring mine)

The DFD is first on the scene of medical incidents.

They arrive on the average 2:44 before Gold Cross Ambulance. Gold Cross in the *“90th percentile response time is 10 minutes and 45 seconds.”* (CSDFD p.57)

Fire fighters provide the initial emergency care. They are trained at a certain level of competence, Emergency Medical Technician (EMT). Gold Cross Ambulance (a private independent business) personnel are Paramedics.

#### **The National Institutes of Health (NIH) and the American Heart Association (AHA) establish protocols for emergency medical treatment.**

Life is dependent on timely intervention/treatment for medical emergencies. **The National Institute of Health (NIH):** *“Time is very important when an unconscious person is not breathing. Permanent brain damage begins after only 4 minutes without oxygen, and death can occur as soon as 4-6 minutes later.”* (nlm.nih.gov)

Life threatening medical emergencies due to cardiac arrest, stroke, and other conditions require advanced life support intervention. **The American Heart Association (AHA):** *“Advanced Cardiac Life Support (ACLS) refers to a set of clinical interventions for the urgent treatment of cardiac arrest, stroke, and other life-threatening medical emergencies, as well as the knowledge and skills to deploy those interventions.”*

Cardiac arrest requires intervention of advanced cardiac life support (ACLS).

Paramedics have the knowledge, skills, and are authorized, in performing those interventions, Emergency Medical Technicians (EMT's) do not.

#### **Dr. Faris Keeling M.D., Medical Director, Duluth Fire Department.**

*“One of the primary goals of an emergency medical system is to get life-saving treatment on scene as quickly as possible.” “The Fire Department is a natural fit for medical first response”. (Fire Department Service Review June 1, 2004 p. 81-2)*

The CSDFD discussed an option of *“implementation of ALS transport into the department”*(CSDFD p.57)

This would establish the DFD as a fully Paramedic transport service. It included hiring a large number of personnel as Paramedics and other support staff. Also included was the purchasing of five ambulances, maintenance and replacement costs for them, garage space, etc. They estimated a start up cost of \$4 million.

The CSDFD stated:

*“a better way to improve patient outcomes is by enhancing communications between DFD and Gold Cross administration, medical directors, and ultimately duty staff. This would include training together, vetting any treatment changes in both agencies, and scheduling top level meetings where both DFD and Gold Cross can plan strategically . . . .”* (CSDFD p.59)

A key of the CSDFD “*Study Objectives*” was:

“Evaluate the current EMS program of Duluth Fire and recommend changes that can be made to improve efficiency and services.” (CSDFD p.1)

The position of resident's is; what would be more efficient then having a Paramedic on the scene 2:44 minutes sooner then currently happens?

**The better way for improving patient outcomes is having personnel who arrive first on the scene, Fire Fighters, possess the necessary level of skills, training, and certification as Paramedics to perform advanced life support (ALS) functions.**

We believe this option supports one of the primary objectives of the CSDFD study:

“How can fire personnel best be utilized given the current and future demand for fire department services and available resources?” (CSDFD p. 1)

- ◆ Resident's proposals do not require hiring additional personnel.
- ◆ It does not require purchasing ambulance vehicles, their maintenance, replacement, or garaging.
- ◆ It merely requires upgrading the training level of a certain number of existing personnel to Paramedic.
- ◆ Fire Fighters are currently EMT's, and Paramedic training is the next level of emergency medical care.
- ◆ Almost none of the huge expenditures under the CSDFD model would be incurred.

Gold Cross Ambulance would continue providing the service they currently perform. In fact they would benefit from the resident's model. It gives them an advantage in their “treatment outcomes”, because a Paramedic has been on the scene and providing the advanced life support interventions necessitated by the incident.

**This model is a win, win, win – Patient, DFD, and Gold Cross**

Residents proposal #2:

**One person on each DFD apparatus be trained as a Paramedic/Fire Fighter.**

### Area III

#### **Planning Area 5 (Park Point) Absent Fire & Medical Emergency Services When the Bridge is Up**

Planning Area #5 constitutes the geographic body of land named Minnesota Point. As a community it is commonly referred to as Park Point.

The CSDFD referred to Park Point as a “*peninsula.*” (CSDFD p. 44). This term was used several times, and it was never referred to as an island.

The Merriam Webster Dictionary defines a peninsula as:

*“a piece of land that is almost entirely surrounded by water, and is attached to a larger land area.”*

The same dictionary defines an island as:

*A tract of land surrounded by water.*

**Nowhere in the CSDFD document is a model/plan discussed for providing emergency fire and medical services when the lift bridge is up.** This means a significant area of a community in Duluth cannot be appropriately serviced.

Quoting one of the primary objectives of the CSDFD study:

*“to assess the efficiency and effectiveness of the Duluth Fire Department so that the City will be better able to develop a sound vision for the fire services in the future and develop a plan for achieving that vision.”*

The CSDFD recommended closing Station 5 (Park Point, Planning Area 5). In 2012 the station was closed and the building sold. A fire station with one personnel is of little value for providing fire and EMS emergency services. Compliance with OSHA regulations and NFPA standards was immensely deficient. Performing effective emergency medical techniques is all but impossible with only one person. It is understandable why Station #5 was closed.

**Demographics** of Park Point include:

Population of about 1500 residents, approximately 600 residential structures, two nursing homes, with about 200 residents, two four story apartment buildings, with 140 units and 185 residents, two hotel/motels, with 80 rooms, a Coast Guard Base with 48 personnel, several watercraft, and fueling facilities, a US Army Reserve military station, a Corps of Engineers building and docks, several marinas, some with fueling facilities, two large parks buildings, three parks and a six mile long swimming beach, a municipal airport with many hanger buildings, land and water way air strips, and fueling facilities.

The only land access to Park Point is a lift bridge at one end of the island. From the years 2010-2013 the lift bridge was raised an average of 4,513 times per season (approximately 10 months while the Great Lakes are frozen with ice).

Vehicle traffic counts by the City, using state of the art technology, counted over 2 million vehicle trips over that bridge in the year 2010. This is over one million vehicles, with at least one occupant. During the summer months vehicles often have 2-4 occupants. Estimated daily population during summer months is between 10-15,000. The number of people on this island, in one year, is significantly over a million.

**The magnitude of these numbers indicates individuals from other parts of the City, and visitors/tourists, are on Park Point. The lack of Fire and EMS services impacts literally hundreds of thousands or a million plus individuals other than residents of the Point.**

Understanding the condition of Park Point being totally separated from fire and emergency medical resources when the bridge is up is a game changer. It changes criteria for:

- ◆ **recommending Fire and EMS services**
- ◆ **response times for these services**
- ◆ **apparatus and personnel available**



The CSDFD lists **Park Point** citywide as having the:

- ◆ **Largest property losses** in dollars per square mile
- ◆ **2<sup>nd</sup> highest in the number of fires** per square mile (**46% higher than the 3<sup>rd</sup> highest**)
- ◆ **2<sup>nd</sup> highest in content losses** per square mile

The CSDFD stated the purpose of their analysis was to:

- ◆ *seek improved service delivery*
- ◆ *maintaining acceptable levels of service to the community*

Study objectives included:

- ◆ *“How can fire **personnel best be utilized**”*
- ◆ For EMS *“recommend changes that can be made to **improve efficiency and services**”*
- ◆ Consider changes *“to **become more efficient** and **meet the future response needs of the community**”* (CSDFD p. 2)

The CSDFD includes a dialogue recommending:

- ◆ **City officials need to work with the public**
- ◆ This includes **response time needs of the community** and the **number and placement of resources**
- ◆ The Report alludes to areas of **mitigation measures** and **alternative provisions**

The cost of providing Fire and EMS services for those 10 months when the bridge lifts is easily calculated; One apparatus, fully staffed, including a Paramedic/Fire Fighter, is moved to the island during the time the bridge is up. No extra personnel are needed to accomplish this, as they are already on duty.

The distance from Station1 to Lake Ave and 9<sup>th</sup> Street (the shortest turn around point) is 1.7 miles. The total round trip is 3.4 miles. Apparatus such as Engines, Trucks, Quint average about 6 mpg.

Fuel @ \$4.00 a gallon, means costs for a round trip are \$2.27. Multiply this by the number of trips equals \$10,217.43 The annual budget for the Fire Department in 2014 was over \$14 million (\$14,492,500).

\$10,000 is an infinitesimal part of that budget.

It is suggested that due to the multistory apartment buildings, an airport, fuel storage sites, and a high probability of incidents on the water, that appropriate apparatus and equipment be readily available for these personnel.

Resident's proposal #3:

**Anytime the bridge is up, one fire apparatus, fully staffed with personnel (four Fire Fighters-one of who is also a Paramedic), be located on Park Point.**

## CONCLUDING STATEMENTS

**How important is the safety and lives of residents, other individuals, and emergency service responders?  
What value do elected officials place on individual's homes, businesses, their personal and business property, and lives? The safety and lives of residents, visitors/tourists, and public safety personnel should be paramount.**

**I** Fire incidents require immediate action for rescue and suppression. State and national regulations specify the minimum numbers of personnel needed before initiating emergency operations. 30% of the Duluth Fire Department's apparatus fail compliance with those regulations. This compromises the ability of Fire Fighters initiating necessary action when arriving at an incident. It jeopardizes the safety of persons needing help, the loss of property, and the safety of the Fire Fighters.

**II** Under current conditions every individual in the City of Duluth is without advanced life support for a critical amount of time when emergency services are called. Having a Fire Fighter trained as a Paramedic, who is first on the scene, and has the ability to perform advanced life support treatments, saves lives.

**III** An entire segment of the City (Park Point) is cut off from critical fire and medical emergency services 4,500 times a year every year. Elected officials have not produced a single plan for remedy of this condition.

### **What will it take for action by elected officials on these important issues of public safety?**

The City of Duluth in 2014 had an annual budget over \$85 million. Officials were successful finding additional funds of over \$20 million for amenities, things that are nice to have, e.g. a ski resort, two 27 hole championship golf courses, indoor ice arenas, a baseball stadium, an aquarium, zoo, theater, bike trail, recreational airport, and the list goes on. These amenities are recreational in nature and many accommodate very narrow segments of the community.

It is time officials revisit priorities and apply efforts in obtaining funds for bringing essential fire and emergency medical services at least in compliance with OSHA regulations and national standards. What functions of a municipality are of a higher priority than essential fire and emergency medical services? The lives and property of resident's and the safety of Fire personnel should be of highest priority. Each day the current conditions exist places individuals and properties at risk. These are critical issues and need immediate remedy.

- ◆ **The DFD needs to be fully staffed.**
- ◆ **The DFD needs the capability of performing advanced life support.**
- ◆ **An entire segment of the City needs Fire and Medical emergencies services when the lift bridge is up.**

On October 12, 2014 when Don Ness announced he would not be seeking another term as Mayor, he made several statements that deserve recalling;

1. The first was the approach he used while Mayor as: “trying to solve problems and create positive changes in this community through ideas and initiative”.
2. “every day I come to work trying to make Duluth a better place to live. It is defined by action . . . by problem solving . . . . working with community members to move projects forward” .
3. he wanted to: “accomplish as much as we can in the time that remains”

On November 8, 2014 Mayor Ness made a statement on national radio (Minnesota Public Radio - the Prairie Home Companion program): “Mayors get things done, that's what we do”.

Resident's proposals demonstrate they are:

- ◆ **trying to solve problems**
- ◆ **providing initiative, ideas, and action plans**
- ◆ **working with officials**
- ◆ **providing the platform to get things done**

**Mayor Ness and City Councilors are asked to consider the proposals residents have presented in this document and move forward in carrying through those proposals. We have confidence in your abilities for accomplishing such important endeavors. What would be a more honorable legacy for the Mayor's remaining time in office?**