LEBANON FIRE EMS FIRE DIST.

STANDARDS OF COVERAGE
2012

Preface

The process of developing the Standards of Coverage (SOC) for the Lebanon Fire District began in the fall of 2011. The work leading up to those beginnings was, however, started many years before. For at least the previous 24 years we have had response time goals, task performance standards, and vehicle replacement guidelines, just to name a few. These metrics were not, unfortunately, based on any research or analysis, but were instead based on anecdotal evidence and "best guess" estimates. Through our Records Management Software (RMS), we have also been collecting data on response times and other measurable factors without any ongoing analysis or re-evaluation with regard to performance.

What we have attempted to do in developing this document is to objectively analyze exactly what it is that we do and to apply S.M.A.R.T. (Specific, Measurable, Attainable, Realistic, & Timely) Goals where applicable.

When the SOC committee began meeting, it was established that the first order of business should be to identify and rank the taxpayers' expectations of the Lebanon Fire District. Over 30 different expectations were identified and then pared down to the five most important;

1. Funding & Cost Effective Operations
2. Adequate Staffing
3. Fast Response Times
4. Communications – Internal & External
5. Equipment – Replacement & Maintenance

The goal of this document is to effectively address these issues and function as a tool for self examination, constant re-evaluation, and the continual improvement of the Lebanon Fire District as an organization. As such, it is important that this work not be ignored, but be periodically evaluated. It is expected that this document will be revisited on an annual basis to assist the Fire Board in governing the LFD to keep up with community expectations and if necessary the re-constitution of the Standards of Coverage committee to update this text in part or in whole.

LEBANON FIRE DISTRICT STANDARDS OF COVERAGE

INTRODUCTION

This document examines Lebanon Fire Districts' ability to respond to and mitigate emergency incidents. It provides overall planning and coordination for emergencies, and it is a comprehensive analysis of detailed Fire, EMS, and Rescue systems.

The format of this document is based on the State of Oregon's Standards of Response Coverage, a critical element of the accreditation process of the Commission on Fire Accreditation International (CFAI). "Standards of Response Coverage" are those written procedures that determine the distribution and concentration of the fixed and mobile resources of a Fire and EMS organization. A systems approach to deployment, rather than a one-size-fits-all prescriptive formula, allows for local determination of the level of deployment to meet the risks presented in each community. In this comprehensive approach, each agency can match local need (risks and expectations) with the costs of various levels of service. In an informed public policy debate, a Board of Directors "purchases" the Fire, Rescue, and EMS service levels (insurance) the community needs and can afford.

The Standards of Coverage are developed through the evaluation of Lebanon Fire Districts present practices, regulatory requirements, historical response data, and a comprehensive risk analysis in which the safety of our employees & citizens is paramount. The response analysis will help the Board of Directors and the community, visualize what the current, or a possible, response system can and cannot deliver.

LFD crews extricate the victim of a motor vehicle accident.

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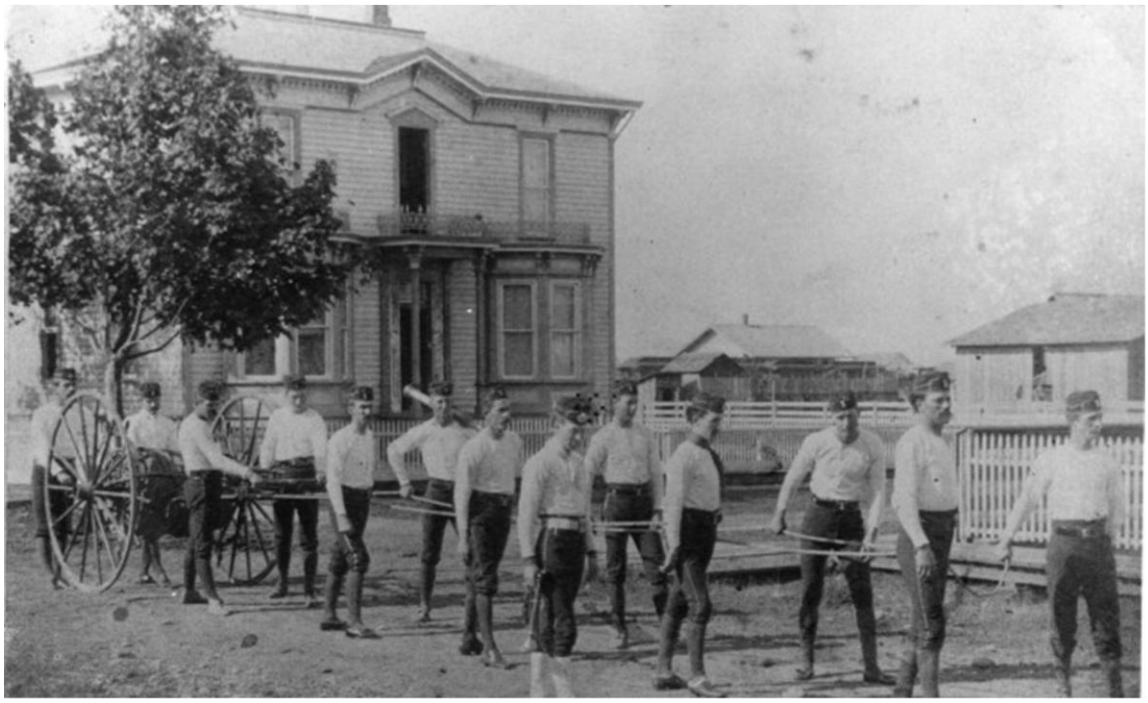
SECTION ONE: COMMUNITY BASELINES

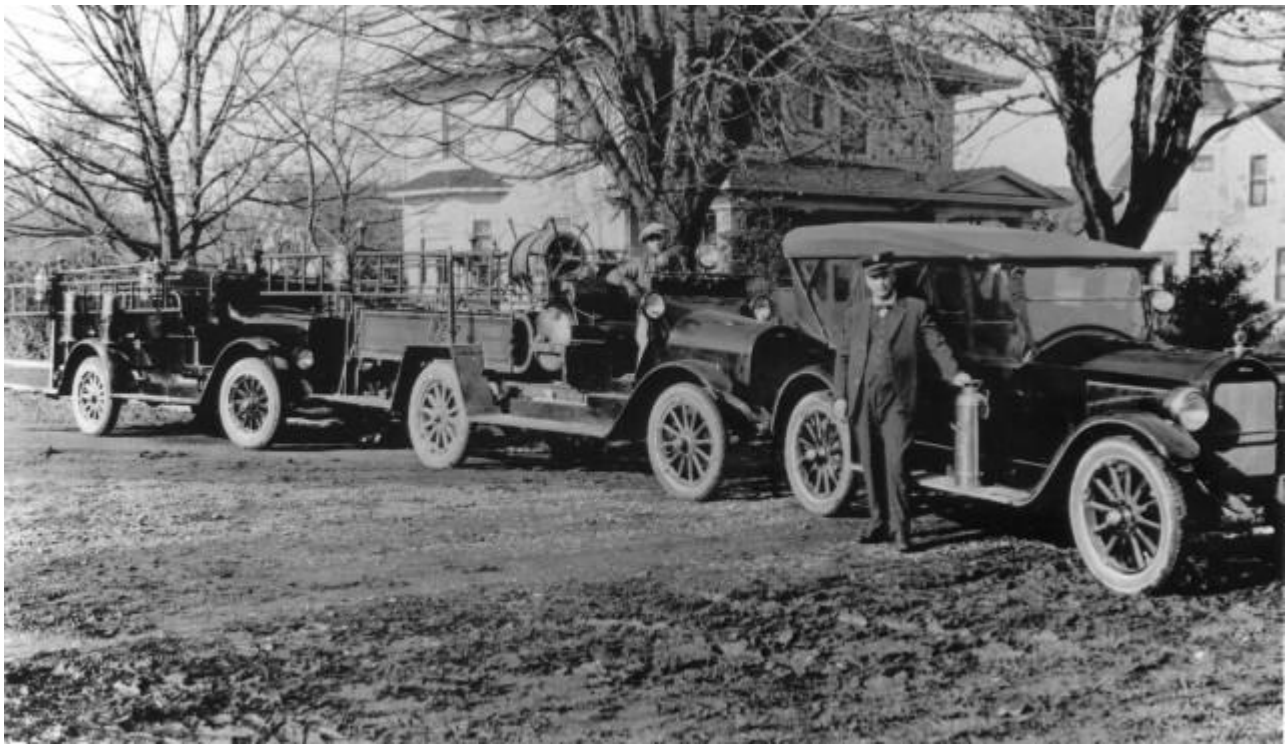
A. History of Lebanon Fire District

The Lebanon Fire District has been serving the community and surrounding areas for nearly 130 years. Formed in 1884 by a group of community minded men, the members of the department represented many walks of life. Occupations included Blacksmith, Pharmacist, Barber, Painter, Butcher, Jeweler, and Merchant just to name a few.



Lebanon Hose Company #1 in front of Donaca House (circa 1884)

Originally called Lebanon Hose Company #1, the fire department was a private organization over which the city had no control and its members paid an initiation fee and yearly dues to belong. At a date now lost to history, the city took over fire department operations and the organization became known as the Lebanon Fire Department. Emergency medical services have been a part of the LFD since 1967. Prior to 1986, the Lebanon Fire Department was a department within the City. We contracted our services to the surrounding rural areas and while the City Council and Mayor governed the Department, a five member rural board of directors governed the rural area. In 1986 the City of Lebanon and the Rural Board of Directors came to an agreement to let the voters of the City and Rural service areas vote on whether the taxpayers were better served by a fire district rather than a city run fire department. The voters approved the vote by a 4 to 1 margin and the Lebanon Fire District was born and once again split away from the City of Lebanon and became a separate taxing entity.



The first three motorized vehicles belonging to LFD were purchased in 1925. L to R, 1917 International Hose Wagon (which we still have today); 1919 Chevrolet Baby Grand Chemical Wagon; Gardner Chief's Car. Pictured at the corner of Park & Maple Streets. (House in the background is now Sundberg, Rauch, Benneth & Horner, CPA's) (circa 1925)

B. Governance

The Lebanon Fire District is governed by a five member Board of Directors. Under ORS 478, the Board of Directors set district policies and employ a Fire Chief to manage day to day operations of the Lebanon Fire District. Today, Lebanon Fire District (hereafter referred to as "LFD") is organized as an Oregon Special District.

C. Geography

District Boundary: The emergency medical services and fire suppression auto/mutual aid boundaries of LFD extend beyond the Lebanon city limits and occupy 156 square miles of Linn County. The Fire District Boundary is as follows:

- **Northern Boundary**- Gerig Dr., Santiam Hwy., Cold Springs Rd., Brewster Rd., Shady Oak Ln., Griggs Dr., Peoples Dr., Island Inn Dr.

- **Eastern Boundary** - Island Inn Dr., Ford Mill Rd., Keel Mtn Dr., Upper Berlin Dr., Speasl Rd.

- **Southern Boundary** - Speasl Rd., Pleasant Valley Rd., Santiam Terrace Rd., Bartels Creek Rd., Dogwood Dr., Butte Creek Rd., Rock Hill Dr., Plainview Rd.

- **Western Boundary** - Plainview Rd., Seven Mile Ln., Glaser Dr., Blatchford Dr., Tangent Dr., Red Bridge Rd., Gerig Dr.

Primary topography: LFD's elevations vary from 250 – 1431 feet above sea level, with the highest elevations located on the edge of the western foothills of the Cascade Mountain Range and Petersons Butte. The surrounding lands are a combination of livestock grazing lands and pasture lands and forested mountainous terrain. The valley floor consists mostly of farmland and pastureland, while the mountain slopes and mid to higher elevations are forested.

LFD is bisected by the South Santiam River which flows roughly from the southeast to the northwest and borders the city to the east. Also running generally the same direction as the river is the Albany Lebanon Canal which is the community's source of drinking water. All drainages ultimately run into the Willamette River which is to the west of the fire district.

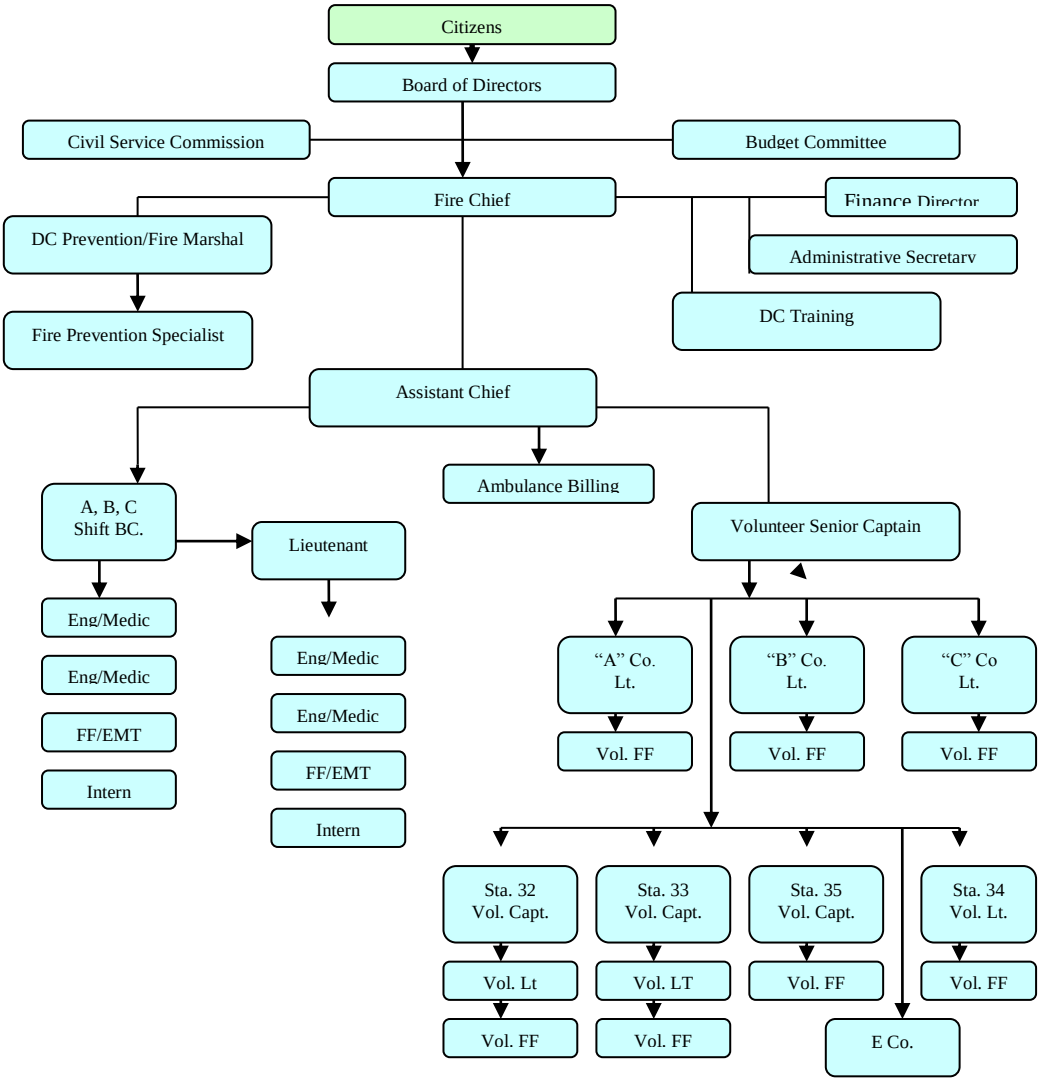
Weather: Summer temperatures may reach the high 90's and sometimes 100+, although mid 80's are more common. Cool night air typically moderates the hot summer days and tends to keep humidity from dropping too low. Winters are relatively mild, although overnight lows often drop below freezing especially during December and January.

Annual rainfall in the Valley is 40 – 45 inches. While rainfall in the Valley is rarely a downpour or accompanied by thunderstorms, it tends to be steadily wet in the winter even if only as a mist. Inhabitants have come to count on at least some precipitation from September through June. July and August are drier and almost rain free. Most areas receive a few inches of total snowfall in the winter, most often as a light dusting that melts away quickly.

D. Existing Fire Deployment

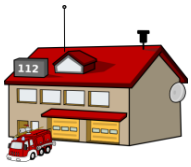
LFD is a combination department that employs thirty-one full time personnel and 37 volunteers. There are 2 Firefighter/EMT's, 4 Engineer/Medics, 1 Lieutenant, and 1 Battalion Chief on each shift. There are three emergency response shifts. Each shift works a 24 hour day, followed by 48 hours off. Each of the three shifts is under the command of the shift Battalion Chief. While each shift is comprised of 8 personnel, the minimum daily required staffing is 6 personnel (1 Battalion Chief and/or Lieutenant, 3 Engineer/Medics, and 0 Firefighters). These 6 - 8 personnel operate out of two of the District's five fire stations. Fire Station No. 31 is also utilized for administrative offices. The administrative staff includes the Fire Chief, Assistant Chief, Training Division Chief, Prevention Division Chief, Fire Prevention Specialist, Administrative Secretary, and Billing Secretary. Stations 31 & 34 utilize both paid and volunteer resources and stations 32, 33, & 35 utilize only volunteer resources. The following is the district's organizational chart:

LFD Organizational Chart



Maximum Daily Staffing

Station 31



ENG/MEDIC FF/EMT

BC ENG/MEDIC

Station 34

ENG/MEDIC FF/EM

LT ENG/MEDIC

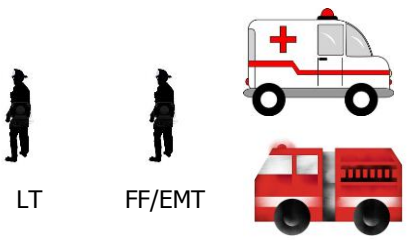
Minimum Daily Staffing

Station 31

ENG/MEDIC FF/EMT

BC ENG/MEDIC

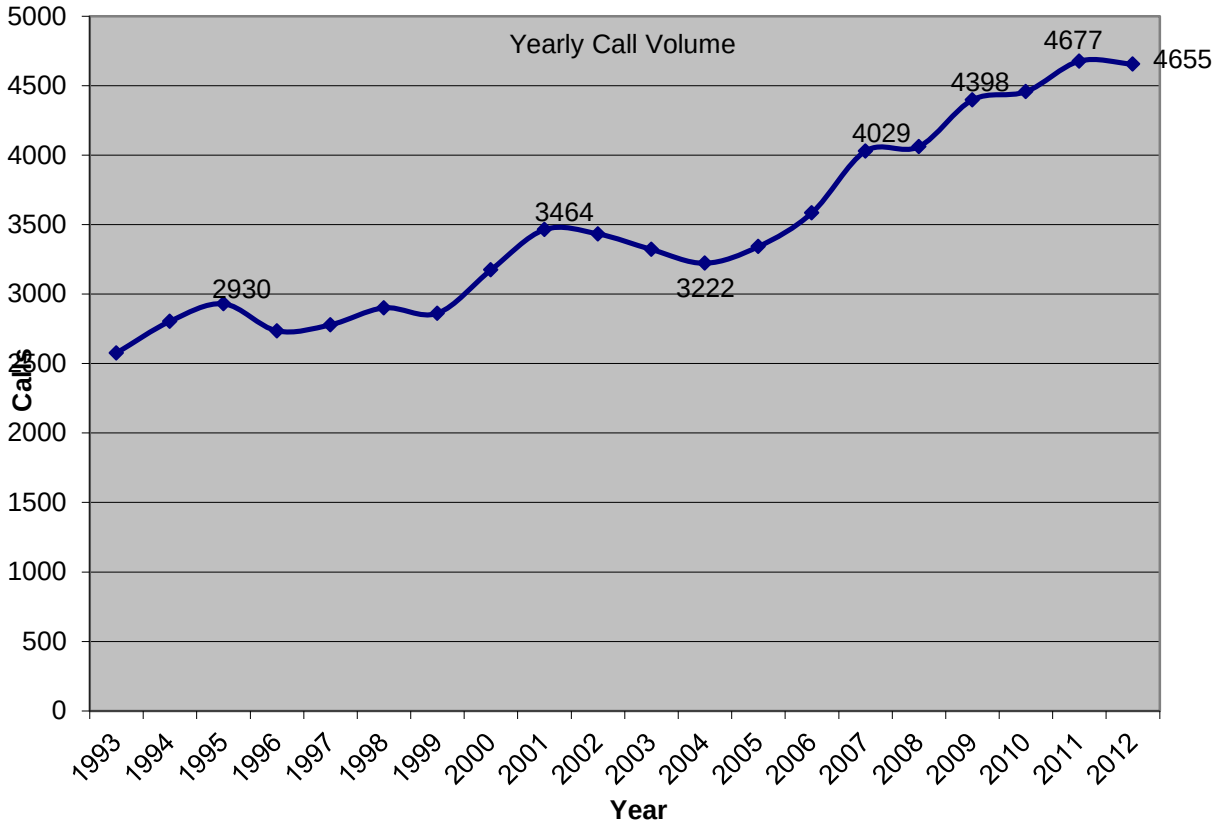
Station 34



LT FF/EMT

Calls for Service

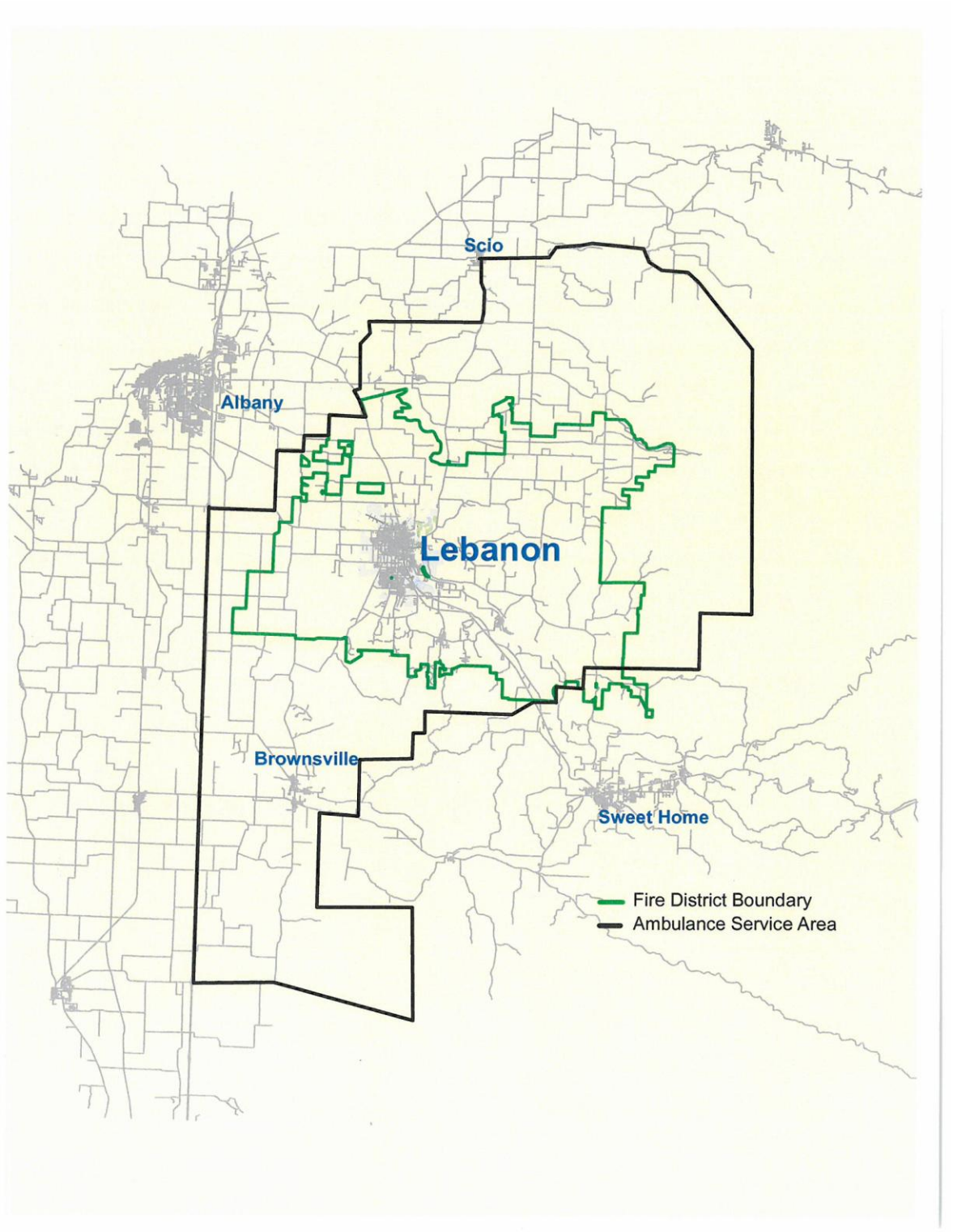
During the 2011 calendar year, LFD responded to 4,677 calls for service. Of these requests for service, 83% were related to Emergency Medical Services, 17% were Fire or other related emergencies.



***Note** – While multiple units may respond on an emergency response, it is only counted one (1) time for statistical purposes.

Fire Response numbers include the following:
Structure Fires
Brush Fires
Car Fires
Fire Alarms Sounding
Ruptured Gas Lines
Smoke Detector/CO Alarms
Power Line Hazards
Rescue Situations
Lift Assists to the Disabled
Miscellaneous Other

The following map shows LFD's ambulance response area which lies largely outside of the fire district.



SECTION TWO: RISK ASSESSMENT

A. Risk Assessment Model

Probability & Consequences

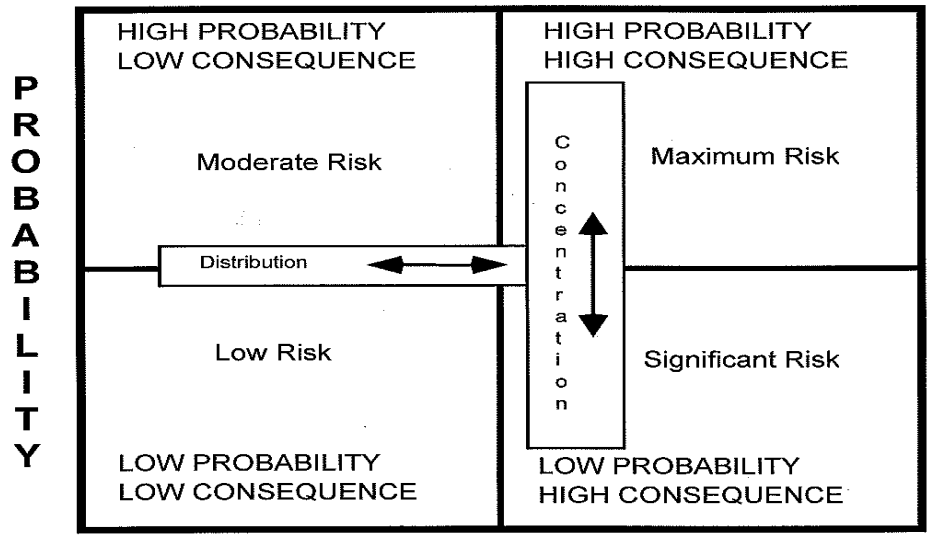
The Lebanon Fire District must assess risks based upon the potential frequency (probability of an incident occurring) and consequence (potential damage should an event occur). For example, a terrorist act has a low probability; however, if a terrorist act occurs, the damage and the psychological impact are potentially very high. This same outlook regarding risk assessment can also be applied to natural disasters. For example, an earthquake generally does not hit the same community every year; but if it does strike, the damage can be great. Conversely, medical emergencies happen every day. The overall potential damage from medical emergencies to the community as a whole is not nearly as significant as that from an earthquake or other natural disaster though these individual incidents greatly affect those requiring the service. To design future deployment strategies, the department must be able to compare the potential frequency and potential damage of events that may affect the community and service area.

Risk management is the analysis of the chance of an event occurring and the resulting damage that could occur as a result of the event.

For example: structure fires are relatively infrequent in comparison to medical incidents in the LFD and its service areas; however, the loss of subsequent dollars, loss of irreplaceable items, and loss of business or jobs make the consequences of such fires high; activation of automatic fire alarms is high probability with low consequence; earthquakes or a large hazmat incident may be infrequent but represent a large potential loss to life and property. Comparatively, a dumpster fire may be a high probability but have little consequence outside of the fire response. With an understanding of the different levels of probability and consequences, proper strategic planning in respect to risk management and resource deployment can take place.

The challenge in community risk management does not lie solely in the work necessary to assess the probabilities of an emergency event in a community, but in the political arena as well. It is the policy makers who will determine the level of service to be delivered to the area being served.

The following Risk Matrix helps identify the elements that must be considered when assessing community risk. Each of the four categories represents a specific level of risk based on the probability of that risk occurring and ties the probability to the consequences that will be experienced if the risk occurs. Each risk that a community faces can be identified and categorized using this measurement of probability/consequences. As the level of risk increases, a differing commitment of fire resources is needed to keep the risk from escalating.



1. Maximum Risk: Maximum risk includes a high probability and maximum consequence. This level of risk has the potential for a high level of life and property loss as well as significant property damage across the entire geographic area. Maximum risks will certainly have a devastating impact on the community's ability to maintain its commercial, residential and industrial tax base. An event of this magnitude would severely impact the community in multiple ways and challenge the community's ability to recover. An event of this nature would most likely include a disaster declaration by the Governor and/or the President of the United States. An example of a Maximum Risk event would be Hurricane Katrina, the Loma Prieta Earthquake, the Oakland Hills Fire or the bombing of the World Trade Center in New York.

2. Significant Risk: Significant risk level has a low probability of occurrence and a high level of consequences. This risk level has the potential for high to moderate life and property loss. A significant risk may vary in magnitude and may create varying threats to those people in the immediate area of impact. Significant risks can also impact those in close proximity to the immediate threat zone. The financial impact related to a significant risk is usually high by threatening the community's economic and social structures. An example would be the loss of a community's major employer due to fire or other disaster. A significant risk will require an extended recovery period but a community that has prepared can recover within a reasonable period of time.

3. Moderate Risk: Moderate risk has a high probability of occurrence and a low level of consequence, such as a house fire or loss of a small business. This level of risk can present a potential for life and property loss but these are usually limited to only those areas, properties and residents in the immediate threat zone. A moderate risk usually has an impact both financially and socially but is limited to specific areas unless the community has not allocated adequate resources to respond to a risk of this level. Inadequate resource allocations for moderate risk incidents can cause them to escalate to a significant level of risk requiring additional resources and the possibility for increased life and property loss. Recovery from a moderate risk is usually completed

within a brief period of time. Moderate risk incidents seldom require assistance from outside the jurisdictional area.

4. Low Risk: Low risk has a low probability of occurrence and a low level of consequence. This risk level presents little threat to the community's ability to function unless the community does not have adequate resources allocated to handle this level of risk. The occurrence of this type of event is infrequent and presents little, if any, potential for significant life and property loss or damage.

The relationships between probability and consequence and the community's adopted service level goals determine the needed concentration and distribution of resources. Distribution is the location of resources throughout the city. Concentration is the number of resources needed in a given area within the city. This varies depending on many factors including the number of events (calls for service); the risk factors of the area; the availability, reliability, and time of arrival of secondary responding units; etc. A challenge will be to find the proper balance for the distribution and concentration of resources needed to meet the service level goals today and in the future as the city and the department service areas continue to grow.

RHAVE

The Lebanon Fire District has conducted an assessment of the commercial structures that exist within the District. The process used is called RHAVE, a nationally recognized evaluation tool. RHAVE stands for Risk, Hazard, and Value Evaluation. It is a set of tools and methods to help fire service and community leaders make objective, quantifiable decisions about their fire and emergency service needs.

The RHAVE process was designed with some specific parameters. Here are some of the criteria used to develop the concept.

- The basic system should be capable of being completed and used by trained personnel.
- The system should be adjustable according to the size and complexity of the community.
- The system should result in results that are understandable by both fire professionals and elected governmental officials.
- The system is not designed to prove preconceived notions.

The RHAVE process was not specifically designed to perform certain tasks, which include:

- It is not a fire spread or fire behavior modeling process.
- It is not a cost-benefit or zero-tolerance model. It does not compare one building to another in order to determine which has the lowest cost to protect.
- It does not predict losses or outcomes, but rather it characterizes potential for loss.
- It cannot force an internal assessment of the condition of a structure unless the authority to conduct such assessment already exists.
- It is entirely dependent upon accurate input to be used for decision makers.
- It is not designed to replace pre-incident plans or any other job aid used during emergency operations.

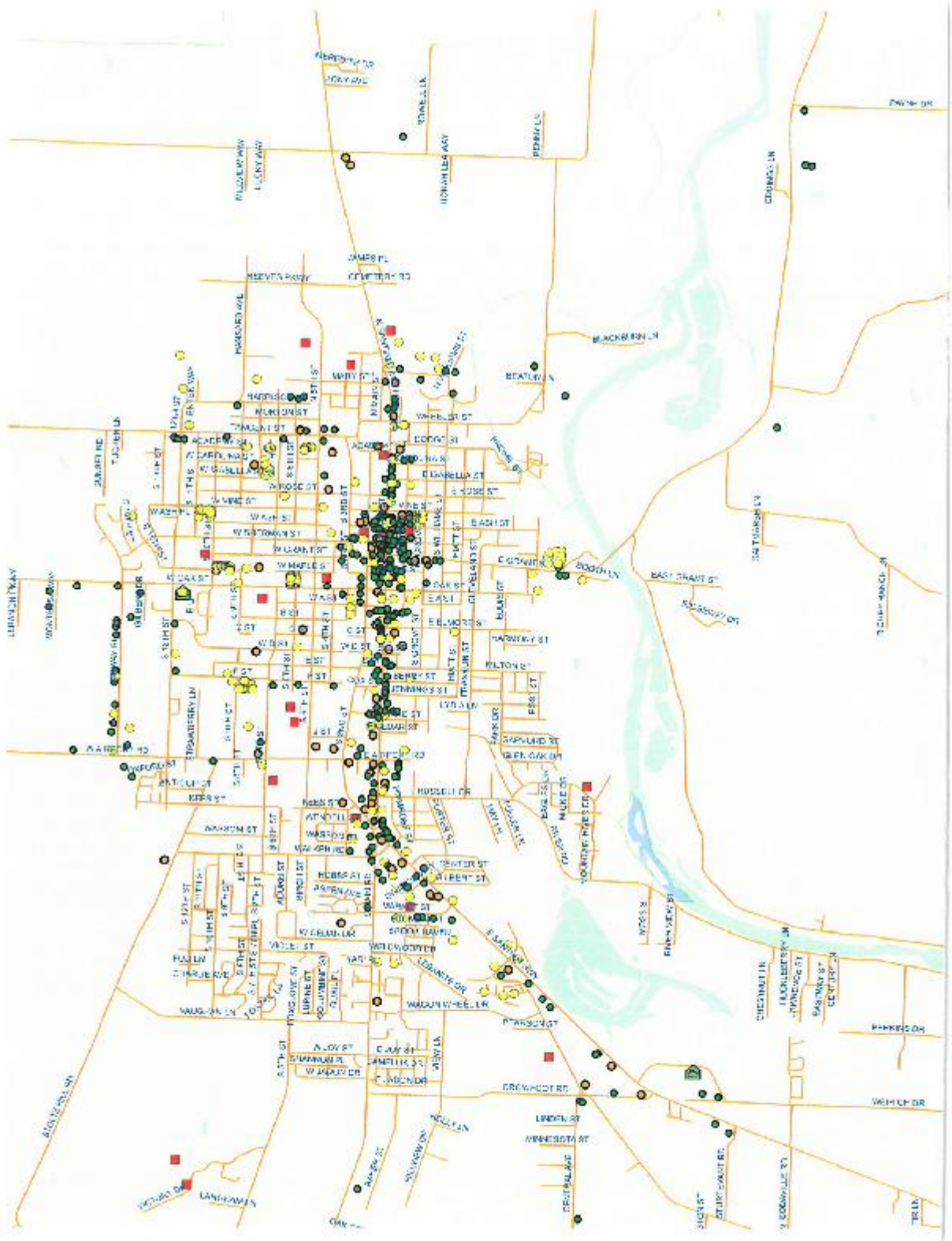
The RHAVE assessment has assigned a numerical value to each commercial occupancy on a scale from 1 to 25. The assigned values were obtained by using the building size, occupancy type, occupant load, and value or impact to the community. The higher RHAVE value the larger the risk. Furthermore, these values can be broken down into three major categories:

- **Category 1** - **Extreme or maximum risk properties.** Value 21 and above. The Lebanon Fire District does not have any structures that meet this risk category.
- **Category 2** - **Major risks properties** do exist within the Fire District. Value 16 to 20. Currently 76 commercial occupancies or less than 10 percent meet this criteria. These properties present a substantial risk of life loss, a severe financial impact on the community or unusual potential damage to property in the event of a fire.
- **Category 3 - Routine or typical risk properties** are abundant within the Lebanon Fire District with more than 750 commercial occupancies meeting this criteria. The risk of life loss or damage to property in the event of a fire in a single occupancy usually is limited to the occupants, although in certain areas, such as small apartment complexes, the risk of death or injury may be relatively high. These routine risks are often the greatest factor in the distribution of fire stations.

The top 10 occupancies in the LFD as identified by the RHAVE assessment are;

NAME	ADDRESS	SCORE
Western Medical University	200 Mullins Dr.	20
Lebanon High School	1700 S. 5th St	20
Seven Oak Middle School	550 Cascade Dr.	20
The River Center	3000 S. Santiam Hwy	20
Strawberry Festival Grounds	37901 Weirich Dr.	19
Willamette Speedway	36606 W. Airport Rd.	19
Samaritan Lebanon Community Hospital	525 N. Santiam Hwy.	19
First Assembly of God	726 W. Oak St.	19
Elks Lodge	633 Park St.	19
East Linn Christian Academy	36883 Victory Dr.	19

The map on the following page is a partial close up of the target hazards identified by the RHAVE assessment. For a view of the full map, please see the fold out in the appendix.



Stations & Resources

Distribution: The term distribution is used in the fire service to describe the location of fire department emergency response resources in an effort to ensure their availability to provide intervention for all risk levels. Because of the cost related to the allocation of fire resources, fire departments use a static response system. A static response system is a system in which fire stations are strategically located in designated response areas across the community, or coverage area. This allows fire department units to travel from one point to another in a pre-designated period of time known as response times or performance objectives.

A key component to a static response system is to ensure fire department resources are properly placed based on current and future growth. Properly spaced fire stations are needed to assure a rapid deployment of emergency resources in order to respond to and mitigate average, or routine, emergency calls for service in a timely manner.

Concentration: The term concentration is used to describe the spacing of multiple fire department resources so a fire department can assemble an "effective response force" at the scene of an emergency incident. An effective response force is that which will most likely stop the escalation of the emergency incident as it is categorized in each risk type. Differing incident types require different levels of initial and secondary staffing based on the nature of the incident. These incident specific resource requirements are called critical tasking and are explained in detail later in this document. It is a critical factor for fire departments to develop specific service level objectives to address the concentration of resources for each risk area.

Fire Station 31 is located at 1050 W. Oak St. Minimum paid staffing at this station is one medic unit or one engine, and a command vehicle. The station also houses an unstaffed reserve ambulance, reserve engine, rescue, brush engine, tower ladder and pumper/tender. Personnel may be moved off one type of equipment and onto another to better respond to emergency needs. This station is also staffed by volunteers.

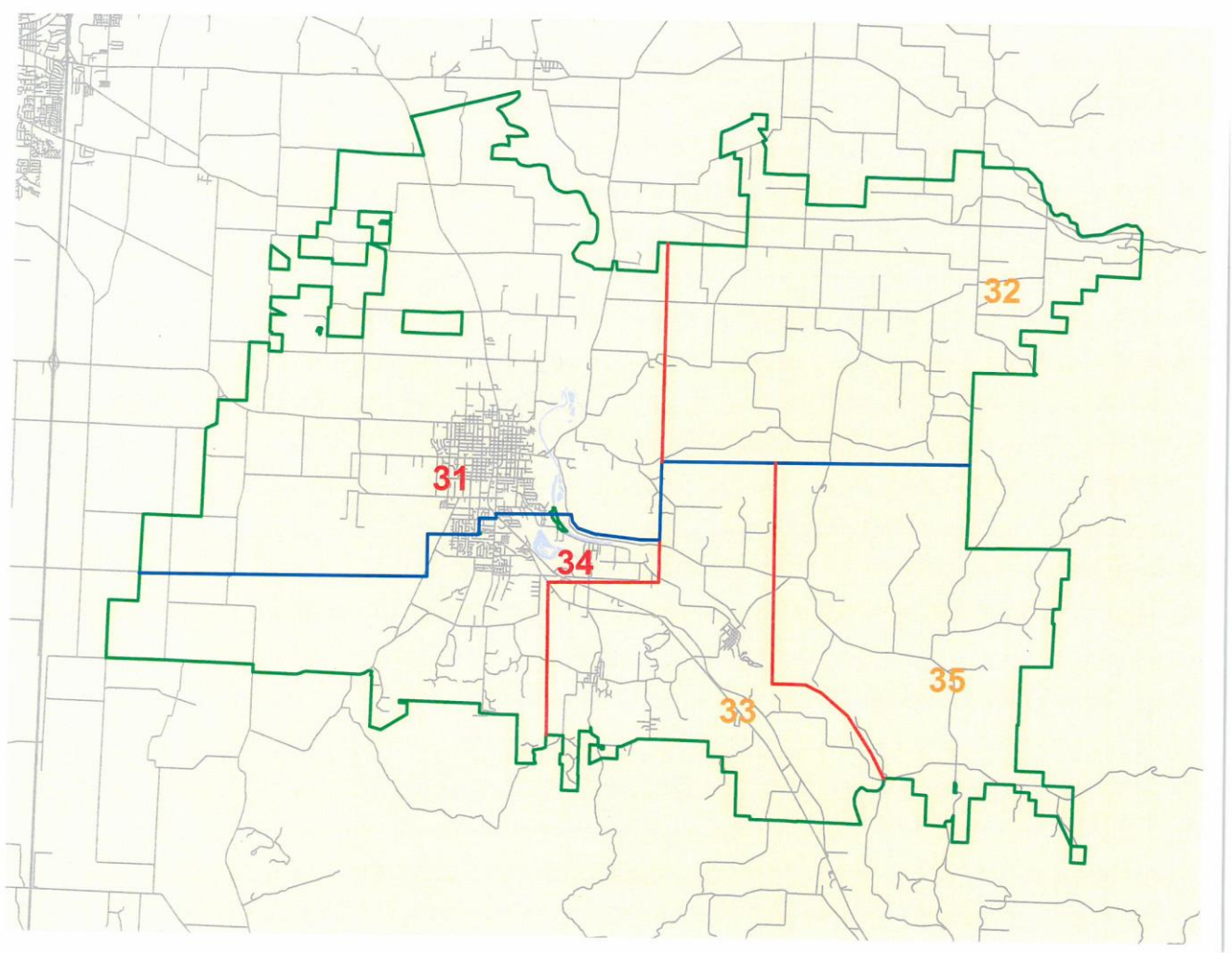
Fire Station 32 is located at 34128 E. Lacomb Rd. This station is staffed by volunteers and houses an engine, and water tender.

Fire Station 33 is located at 30570 Fairview Rd. This station is staffed by volunteers and houses an engine and water tender.

Fire Station 34 is located at 4000 Weirich Dr. Minimum paid staffing at this station is one medic unit and/or one engine. This station also houses an unstaffed reserve engine, reserve medic unit, and wildland engine. Personnel may be moved off one type of equipment and onto another to better respond to emergency needs. This station is also staffed by volunteers.

Fire Station 35 is located at 30797 Berlin Rd. This station is staffed by volunteers and houses an engine and brush truck.

Fire District Map with Stations & Response Areas



Lebanon Fire District boundary is noted in green. Stations 31 & 34 (paid stations) respond to all calls on their respective sides of the blue line regardless which first due volunteer sub-station (32, 33, &35) response area the call occurs in, i.e. Station 31 responds to all calls in the Station 31 & 32 Districts & Station 34 responds to all calls in the Station 34, 33, & 35 districts.

B. Risk Type

Understanding community risk is important when conducting a fire department response coverage assessment. Each risk presents the need for varying fire resources. Based on the potential posed, each risk type may require an increased number of fire department personnel, apparatus, equipment, and water supply to keep a potential event from escalating beyond the department's mitigation capabilities. This section explains the various risk types in the community. The potential risks include the following categories; Structure Fires, Emergency Medical Services, Wildland Fires, and Technical Rescue.

1. Structure Fire Risk

A building categorized as **Maximum Risk** will be significant in size, absent of automatic fire protection and alarm systems, require a large amount of water to contain a fire and have a potential for a high life loss due to existing and non- conforming exiting. These buildings will have an irreplaceable or a major financial or social impact on the community if lost. A key factor that places a building in this category is inadequate water availability for fire suppression operations at the site of this building. An example of a building categorized as Maximum would be as follows: An older, multi-story, non-reinforced masonry building considered to have historical significance. This building would have no fire protection or alarm systems, poor exiting, and a marginal water supply for firefighting operations.

A building categorized as **Significant Risk** will be substantial in size and have the potential for life and property loss. The potential for life loss varies between those occupants in the immediate area to threatening the lives of all of the people in the building. The financial impact to the community created by this level can be high due to loss of jobs and/or loss of tax revenue. These buildings usually have automatic fire protection and alarm systems. Examples of Significant buildings include common hallway apartments, warehouses, office complexes, moderate to large sized retail stores, schools, hospitals, medical buildings, and older downtown buildings that have retrofitted their buildings with fire protection systems.

Buildings categorized as **Moderate Risk** are average in size and can present a potential for a high life loss but are usually limited to threatening only the immediate occupants of the structure. The financial impact due to the loss of this structure has an impact on the occupants or owners, but not the surrounding properties. Examples of these buildings vary widely with the most typical in this class being a single family residence. Smaller apartment buildings and smaller businesses are also included in this category.

Buildings categorized as **Low Risk** have a very limited exposure. They are small structures that are not normally occupied by people. They also generally have a reduced amount of fire load, require small amounts of water to extinguish, have limited potential to spread to other buildings, and have little financial impact to the owners or the community. An example of a building in the Low Risk category would be a carport, shed, or out-building with limited potential for spreading to nearby buildings.

The table below illustrates the types and numbers of building occupancies that can be

found within the Lebanon Fire District.

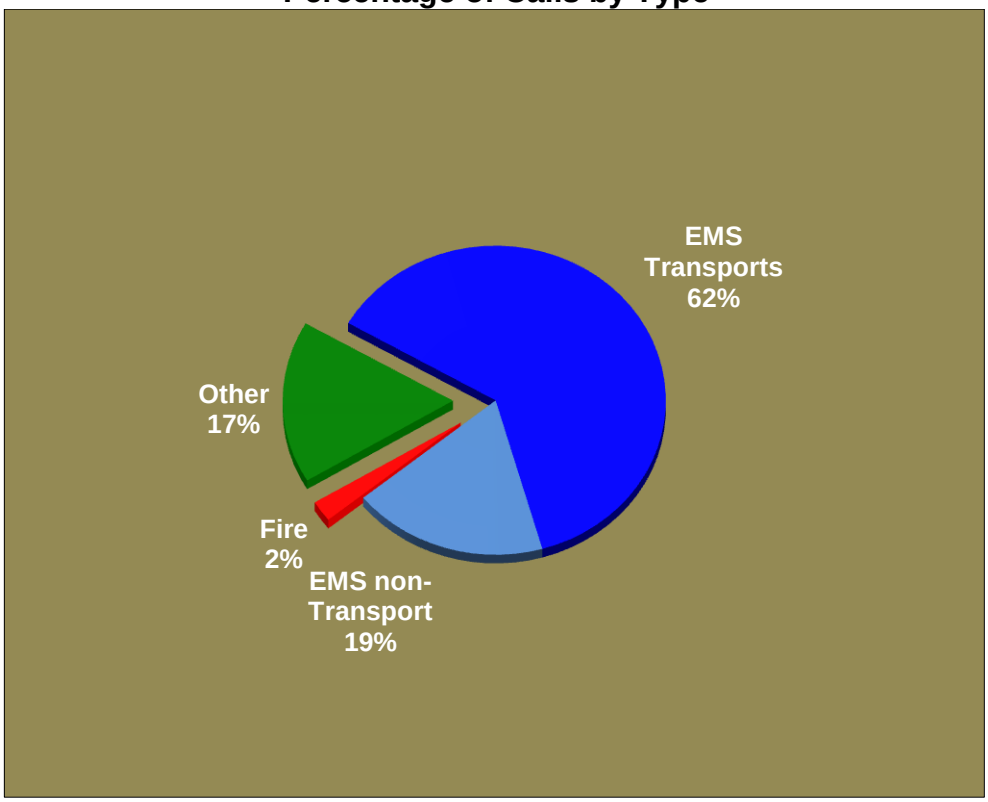
CLASSIFICATION	# of BUILDINGS
Single Family Residential	10,600
Multi- Family Residential	176
Offices/Mercantile/Assembly	398
Educational Facilities	25
Fabrication & Manufacturing	45
Health Care Facilities	41
Storage	34
Totals	**11,319**

2. Emergency Medical Services (EMS) Risk

Routine, single patient emergency medical service incidents in the Fire District's Ambulance Service Area can be considered "Low" to "Moderate" risk. These types of incidents have a very high probability of occurring but their consequences only affect the patient and their immediate family. EMS incidents with multiple patients, also known as Mass Casualty Incidents (MCI's) can be considered "Moderate" to "Significant" risks. These call types occur less frequently but have the potential to affect a greater number of people.

Emergency Medical Service (EMS) incidents make up the largest percentage of responses for LFD. This fact is also true for the fire service nationwide. During the past 3 – 4 decades fire departments across the country have taken a lead role in providing basic and advanced life support services in their protection areas in an effort to provide comprehensive pre-hospital care for the citizens they protect. Nationally, EMS calls for service make up approximately 80% of any fire department's overall emergency call volume.

Percentage of Calls by Type



***FIRE** calls note the number of calls where hostile fires were actually encountered.

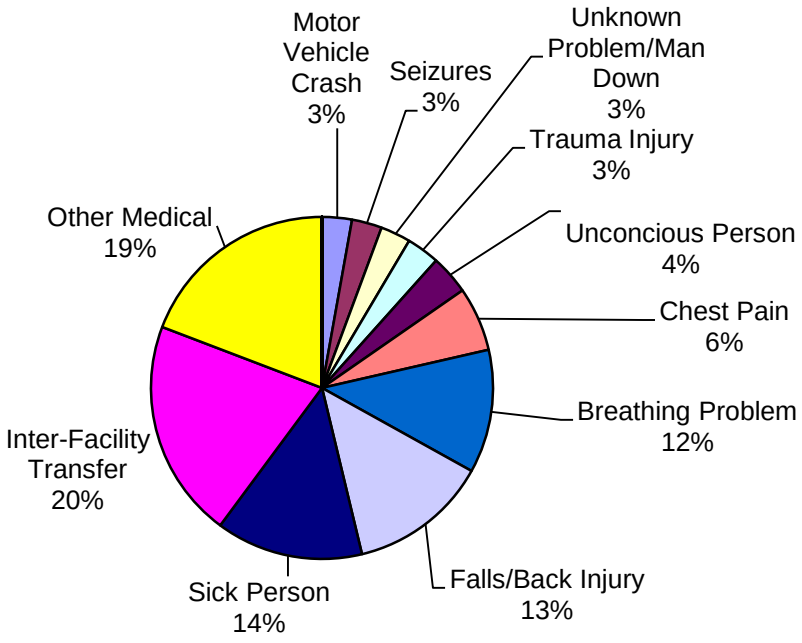
****OTHER** call may include fire type calls such as smoke scares, alarm soundings, illegal burning, etc., as well as wire down, public assistance and other non-medical type calls.

Assessing the risk related to the EMS system involves understanding the history and types of EMS calls being responded to as well as the location in which those calls are occurring. As the population in the United States ages, calls for emergency medical service are certain to increase. During difficult economic times, fire departments

experience an increase in calls for EMS service.

Emergency Medical Service (EMS) responses are the most prevalent incident type for LFD. In 2012 the Fire District responded to 4,677 calls for emergency service. Of those calls, 81% were calls related to emergency medical services. The most typical reasons for generating EMS calls were inter-facility transfers, falls/back injuries, breathing problems, chest pain, and unconsciousness.

Percentage of EMS Calls by Reason



3. Wildland Fire Risk

Assessing Lebanon's Wildfire Risk

The primary factors used for assessing a community's wildfire risk are the vegetation types (fuels), steepness of the topography, housing density, fire starts, and protection capabilities. Many of these key factors contribute to Lebanon's elevated risk due to wildland fires especially in the Wildland Urban Interface (WUI).

LFD crews operate at a conflagration in central Oregon.

Wildfire Behavior and Suppression

Wildland fire behavior is driven by three primary factors: fuel, weather, and topography. All three factors combine in the Lebanon WUI to create potentially hazardous wildfires. The intensity and rate of spread (together referred to as behavior) of a wildfire determine what suppression tactics will be effective. Flame heights over 4 feet dictate the use of fire engines and bulldozers in a direct or indirect attack strategy and flames over 8 feet dictate the use of aerial resources and construction of fire lines well away from the fire front.

Wildfire Fuel Conditions

The fuel (vegetation) in and around Lebanon is often heavy. Much of the WUI area is either Extreme or High hazard vegetation types meaning flame lengths of at least 4 feet and more likely 8 feet and greater over a larger proportion of the protection area. A fuels reduction program managed by the Oregon Department of Forestry has decreased the potential fire behavior and increased potential suppression effectiveness on selected high risk areas of the fire district. However, without regular maintenance these areas will revert back to their previous conditions.

Structure Vulnerability

An important but unknown factor is the flammability of homes. As explained above the wildfire risk is well quantified, but each individual home has its own hazard rating depending on the construction and the immediate 100 foot area, often called the "defensible space" zone, surrounding the home. There are many structures in the Lebanon WUI zone, but it is unknown how many have adequate defensible space for effective fire protection. Looking at WUI wildfires in similar communities across the West, the prognosis for structure survival during a major wildfire in Lebanon looks grim. Factors include high housing density, narrow and winding streets, a finite water supply (no water in many rural portions in the mutual aid area), seasonally hot and dry days, areas of moderate to steep topography, and highly flammable vegetation surrounding the community all spell out a potentially challenging and hazardous environment for firefighting with limited chances for avoiding home loss. Outreach and education efforts continue by LFD to encourage homeowner preparations, but District budget constraints may negatively impact code enforcement when hazardous situations are identified by LFD. This decreases the effectiveness of suppression and home protection actions and increases the risk of a major fire with potential loss of structures and/or lives.

4. Technical Rescue Risk

In general, technical rescue is the application of special knowledge, skills and equipment to safely resolve unique and/or complex rescue situations.

For a wide variety of reasons, victims become stranded and/or injured in the areas in and around our city. Easy access to hiking and biking trails along with extremes in the geography create technical rescue situations each year.

Furthermore, vaults, tanks, tunnels and trenches spread throughout the District pose a risk to the employees who work in them and the citizens who might become trapped in them. There are many OSHA regulations that training requirements, equipment needs, and procedures required to perform these complicated rescues.

Rope Rescue

Rope rescue is defined as any rescue attempt that requires rope and related equipment to safely gain access to, and remove victims from, hazardous geographic areas with limited access such as slopes, cliffs, and buildings, above or below grade structures, by means of rope systems. Rope rescues are divided into two general categories, low/steep angle and high angle.

Both of these categories exist in and around the fire district. Each year LFD is called to treat and rescue injured victims from our watershed, park lands and rural areas we serve. Some of these victims are located in remote regions accessible only by 4x4 vehicles, by foot, and in rare cases helicopter. These calls for service range from simple litter carry outs to technical rescues that may involve multiple agencies and extended times to accomplish the mission.

Confined Space/Trench Rescue Risk

Confined spaces exist in our area in a variety of forms. Federal OSHA regulations define a confined space as a space that:

•Is large enough and so configured that an employee can bodily enter and perform assigned work; and

•Has limited or restricted means for entry or exit; and

•Is not designed for continuous employee occupancy.

Examples of confined spaces in Lebanon include:

- Sewers and sewer facilities throughout city and at the waste water treatment plant
- Storm drains
- Electrical and communication vaults
- Tanks (fixed and mobile)
- Manholes
- Trenches and excavations

Confined space rescue represents one of the most challenging and dangerous operations undertaken by fire departments in America today. Nearly 60% of all confined space deaths are would-be rescuers associated with secondary entries. This includes fellow employees, bystanders and untrained or poorly trained responders.

SECTION THREE: CRITICAL TASK ANALYSIS

In order to provide life safety and emergency mitigation efforts in an effective manner it is imperative that firefighters respond to emergencies in a timely manner and with enough trained firefighters to safely mitigate the emergency. Critical tasks are those duties that must be conducted by firefighters in order to safely control emergency incidents.

In order to effectively determine LFD's ability to ensure effective service delivery while maintaining a safe working environment the department must conduct a critical task analysis. The critical task analysis is the process of matching LFD's resource deployment to each type of risk. A critical task analysis identifies the necessary staffing level required to safely perform each task and successfully mitigate each risk. A critical task analysis was conducted for the following risk types:

- **Structure Fires**
- **Emergency Medical Calls**
- **Wildland Fires**
- **Technical Rescues**

LFD crews ventilating a roof at a single family dwelling fire.

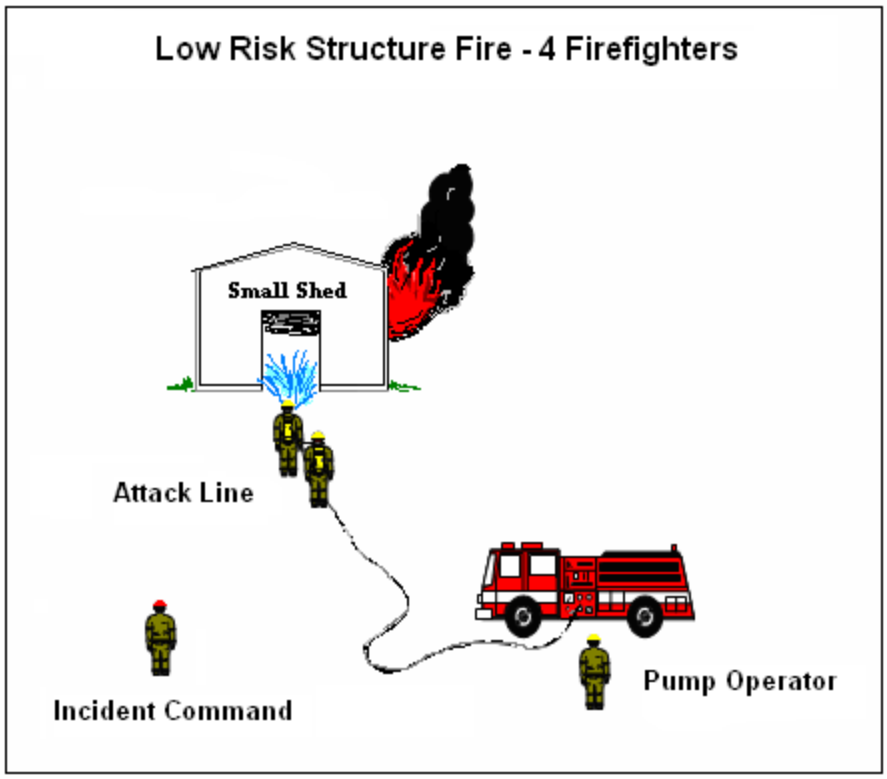
A. Structure Fires

Low Risk Fires

The following table provides a task analysis for Low Risk structure fires and/or incidents like rubbish fires, small grass fires, vehicle fires and incidents that involve a light fire load. The example also takes into consideration that the potential for injury or loss of life is non-existent and that the potential for exposure issues related to adjacent properties is non-existent.

CRITICAL TASK	PERSONNEL
Command / Safety	1
Pump Operator	1
Attack Line	2
Total Number of Firefighters	**4**

Low risk fires are normally handled by one fire unit and 4 firefighters as demonstrated in the following diagram:



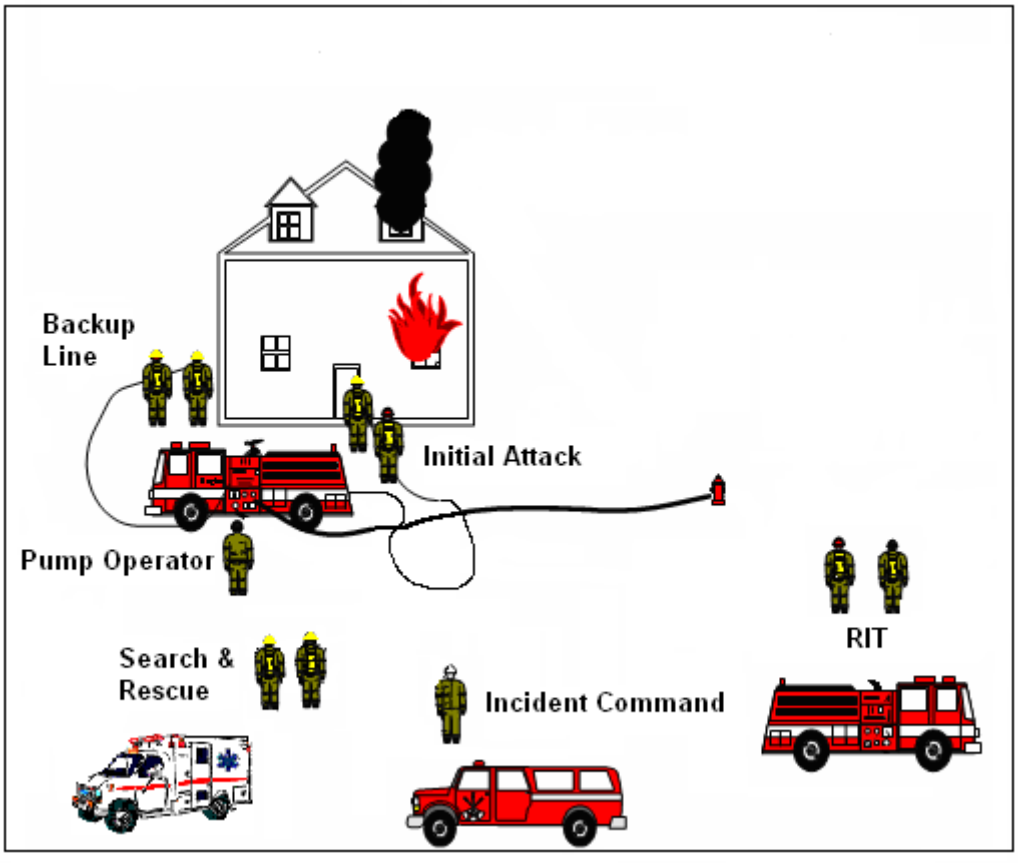
Moderate Risk Fires

The following table and diagram represent the critical task assignments and personnel requirements for an initial alarm assignment at a "Moderate Risk" structure fire.

CRITICAL TASK	PERSONNEL
Command / Safety	1
Pump Operator	1
Attack Line	2
Back-up Line	2
Support / Search and Rescue	2
RIT *	2
Total Number of Firefighters	**10**

*** Rapid Intervention Team (RIT).** A dedicated crew of firefighters who are assigned for rapid deployment to rescue lost or trapped members.

Moderate Risk Structure Fire – 10 Firefighters

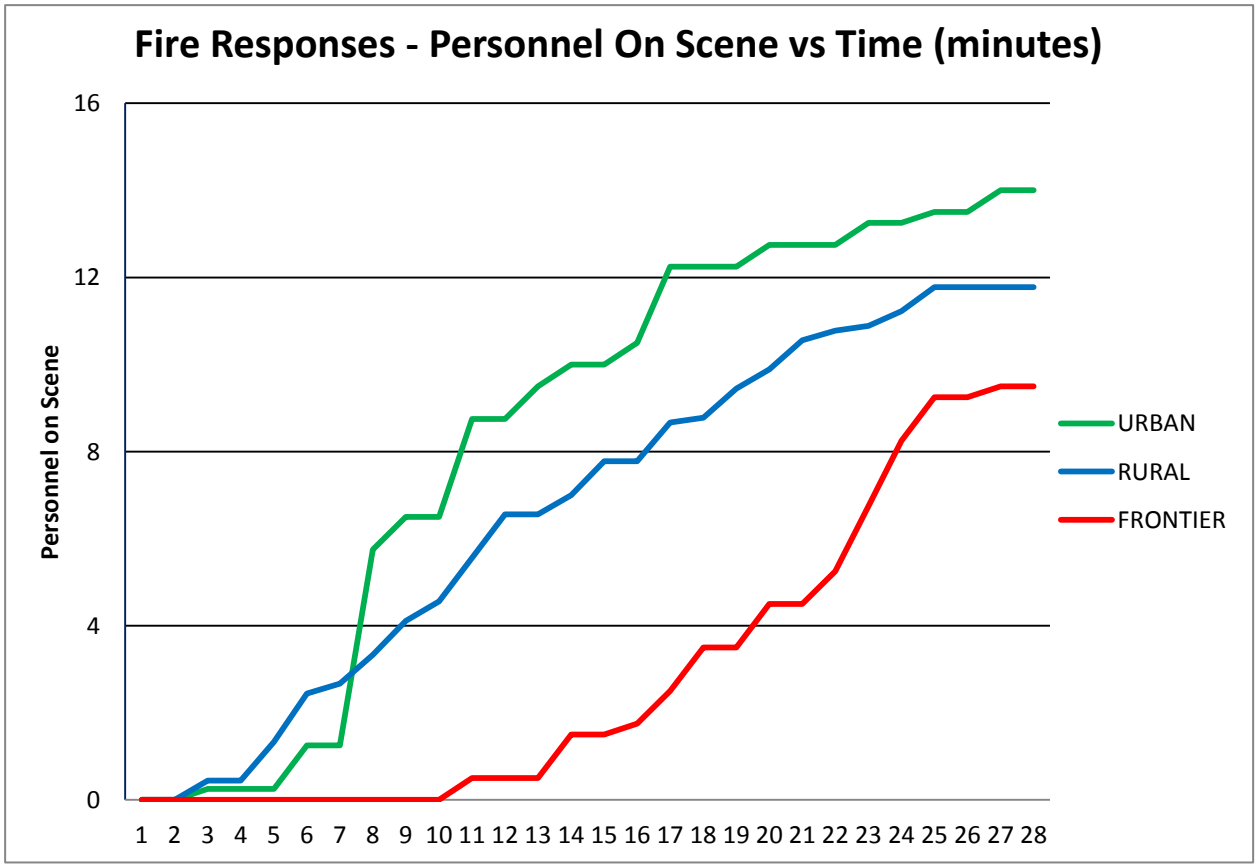


- **LFD must at times operate in split or less then ideal modes on the fire ground until sufficient staffing is on scene.**
- **Equipment and personnel responding may be reduced because of multiple emergencies or extenuating circumstances.**

Significant and Maximum Risk Fires

Fire departments should maintain the capability to provide additional alarm assignments when situations are beyond the capacity of the initial first alarm assignment. In these instances, mutual and/or automatic aid will be required

CRITICAL TASK	PERSONNEL
Command / Safety	2
Pump Operators	2
Attack Lines	4
Back-up Lines	4
Search and Rescue	4
Ventilation	4
RIT	2
Total Number of Firefighters	**22**



2 in 2 out & IDLH

OSHA's 2 in – 2 out rule for firefighting states that before firefighting operations begin in an Immediately Dangerous to Life and Health (IDLH) atmosphere, you must have at least four firefighters on scene capable of interior firefighting. The IC (Incident Commander) and Engineer can function as part of the 2 out as long as they are readily available to perform a firefighter rescue. The 2 in – 2 out consist of one team of at least two firefighters to combat the fire and another team of at least two firefighters to be stationed outside and dedicated as an immediate response rescue team. There are certain situations in which the 2 in 2 out rule does not apply, such as known or suspected rescues.

LFD will use the 2 in – 2 out rule as a guide and not enter structure fires where and IDLH atmosphere occurs until we have the required four personnel on scene capable of interior firefighting unless we have a known or suspected rescue, in which case we will make every effort to preserve or save lives.

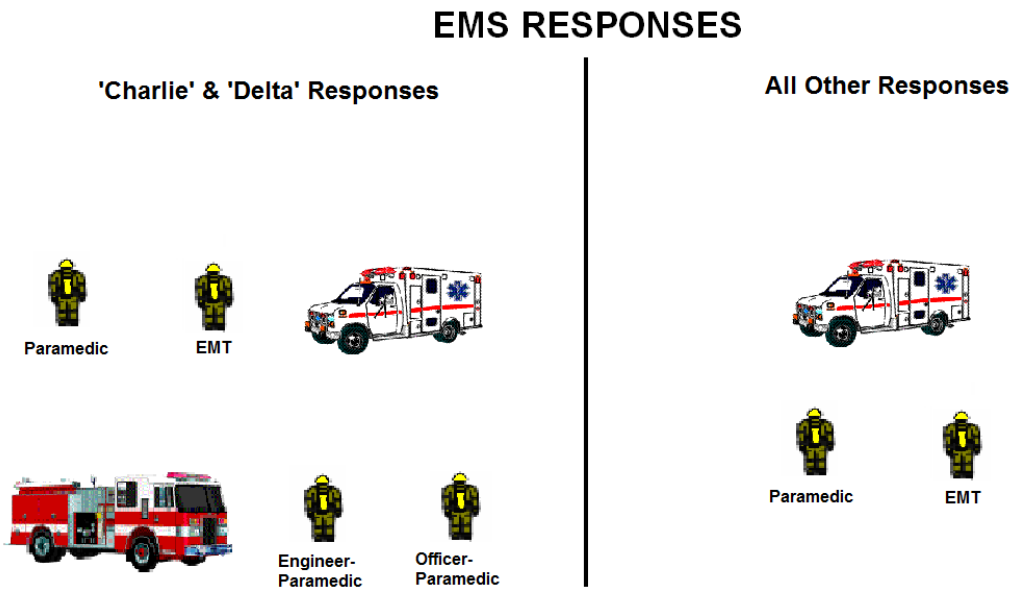
Anytime an IDLH atmosphere is encountered, it will be incumbent on the IC to make a risk analysis of the situation to weigh the risks and benefits of entering the IDLH atmosphere. If the IC determines that the risk is high and the benefit is low, no personnel should be allowed to enter the IDLH atmosphere. In cases where there is no immediate rescue and the IC determines the risks do not outweigh the benefits and will be committing resources for operations inside the IDLH they must insure that we have the required 2 in – 2 out. If not, we will be an exterior firefighting force. Again, the IC must assess the risks and benefits of putting water on the fire from the exterior as opposed to the potential damage it may cause.

B. Emergency Medical Services

Routine, Single Patient EMS Incident

LFD has determined that a Firefighter and a Paramedic are able to provide the necessary EMS care for many EMS responses. In those cases where a significant life threatening emergency has been identified by the dispatch center, 2 more personnel are dispatched to the scene to assist with the additional critical tasks that these kinds of calls generate. These calls are coded as “Delta” or “Charlie” responses.

The following illustration shows the resources needed at most medical emergencies.



- **Equipment and personnel responding may be reduced because of multiple emergencies or extenuating circumstances.**
- **Motor vehicle accidents may be dispatched as “Delta” or “Bravo” level calls, however, an engine is dispatched with the medic unit regardless of level. The possibility of extrication, extra lifting or hazardous fluids spills & leaks warrants the increased response.**

“Delta” responses can be defined as those types of medical emergencies which are immediately life threatening and will require more than 2 personnel to help mitigate the crisis.

Mass Casualty Incidents

To provide needed resources during a mass casualty incident that goes beyond the capability of local resources, Linn County has implemented the Multiple Patient Incident Plan. This protocol allows for the orderly management and assignment of medical resources available to respond to all emergencies.

C. Wildland Fires

During peak fire season LFD units respond to multiple wildland incidents within the boundaries of our fire district. LFD's primary responsibility is protection of life including evacuation of residents from the fire area. Secondary to life, property protection is prioritized, meaning that the advance of the fire may continue until protection of both life and property are addressed. This prioritization also keeps needed resources from being committed to protecting structures with little probability of being saved and allows us to focus on structures that are salvageable. Mutual aid from other Linn County Fire departments, Oregon Department of Forestry (ODF), and the U.S. Forest Service is absolutely critical to address potentially overwhelming demands for protection of life and property, and to suppress the wildfire itself if LFD units are fulfilling primary goals.

LFD crews battle a field fire trying to keep it out of the tree line.

Small Wildland Fire

Because wildland fires could have such a disastrous effect on the district, LFD has placed a significant interest in extinguishing any small brush/grass fires as quickly as possible. Initial alarm assignments have all available fire suppression personnel responding to the scene and may also include "High Risk Fire Assignments (hot day automatic mutual aid).

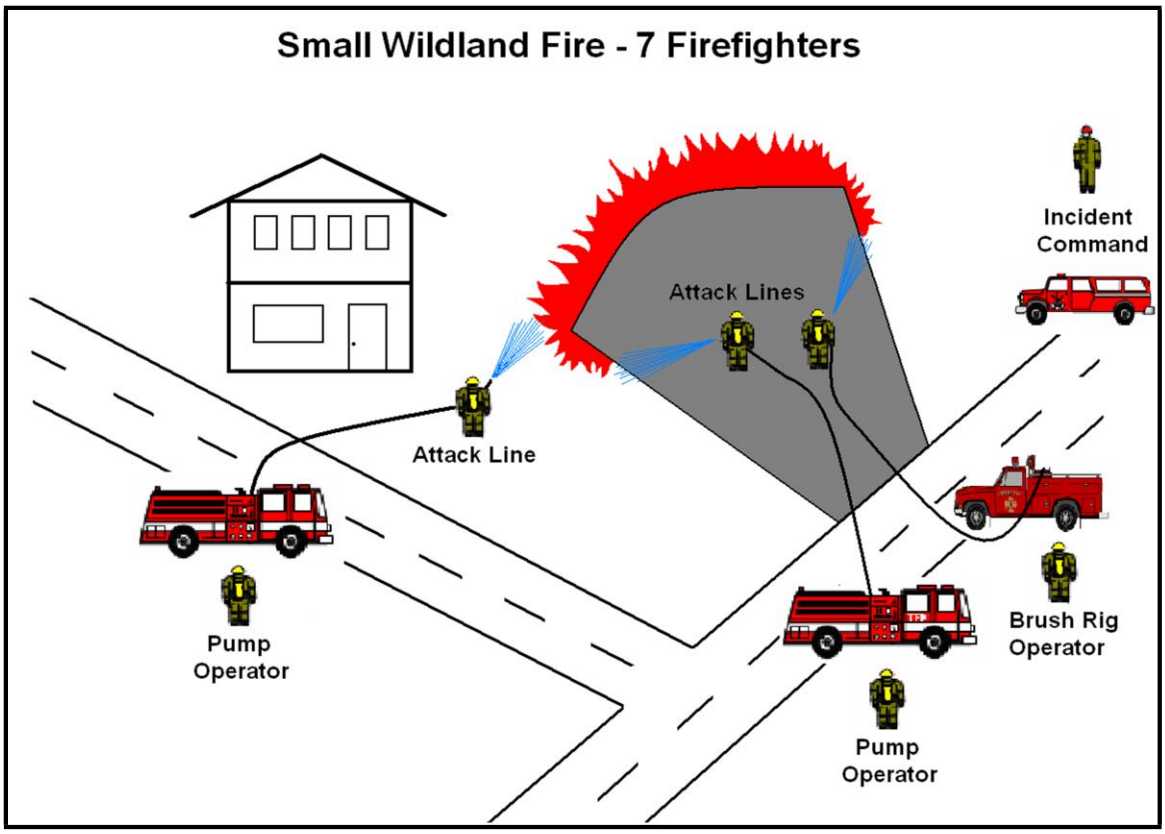
The following chart shows the initial alarm assignment for any wildland fire that occurs within the district.

Small Wildland Fires (less than one acre)

CRITICAL TASK	PERSONNEL
Command/Safety	1
Pump Operators	2
Attack Lines	3
Brush Rig Operator	1
TOTAL	**7**

- **At minimum on duty staffing, the above numbers require call back personnel and volunteer response to keep medic units staffed.**
- **During the fire season LFD may also receive assistance from ODF and the U.S. Forest Service, including helicopter and fixed wing aerial resources.**

- **Equipment and personnel responding may be reduced because of multiple emergencies or extenuating circumstances.**



Large Wildland Fire

When wildland fires escalate beyond a first alarm assignment, additional resources must be requested through additional alarms. Additionally, Strike Teams and Task Forces may be requested from other Linn County fire departments. Further escalation of the incident or the potential for serious impacts to the community can necessitate declaration of a conflagration in order to mobilize State-wide resources. Typical critical tasks required during a large wildland fire are listed below:

- Establish a Unified Incident Command Structure
- Provide an Incident Safety Officer
- Evacuate residents as needed
- Delegate Division and Group Supervisor responsibility
- Request assets and direct fire control activities
- Fire control/structure protection with engines
- Provide mobile water supply
- Fire control with hand crews
- Tactical planning including structure triage and GIS mapping
- Fire control with special assets if needed (bulldozers, air tankers, helicopters)

D. Technical Rescue

The following table indicates the minimum number and type of responders needed to perform a Technical Rescue (any rescue requiring specially trained personnel and/or specialized equipment). Although LFD has several individuals on each shift who have a basic understanding of various rescue disciplines we do not have a formal "Technical Rescue Team". In cases where additional expertise or services are required, LFD will utilize mutual aid agencies as outlined in the Linn County Mutual Aid agreement and in rare instances other outside agencies or organizations may also be called for assistance. This may result in a significant delay.

Incident type	Technical Rescue Trained Firefighters	Firefighters	Total
Reach and Treat Medical	1	3	4
Low Angle	1	6	7
High Angle	9	6	15
Confined Space (no rigging)	6	4	10
Confined Space (with rigging)	9	6	15

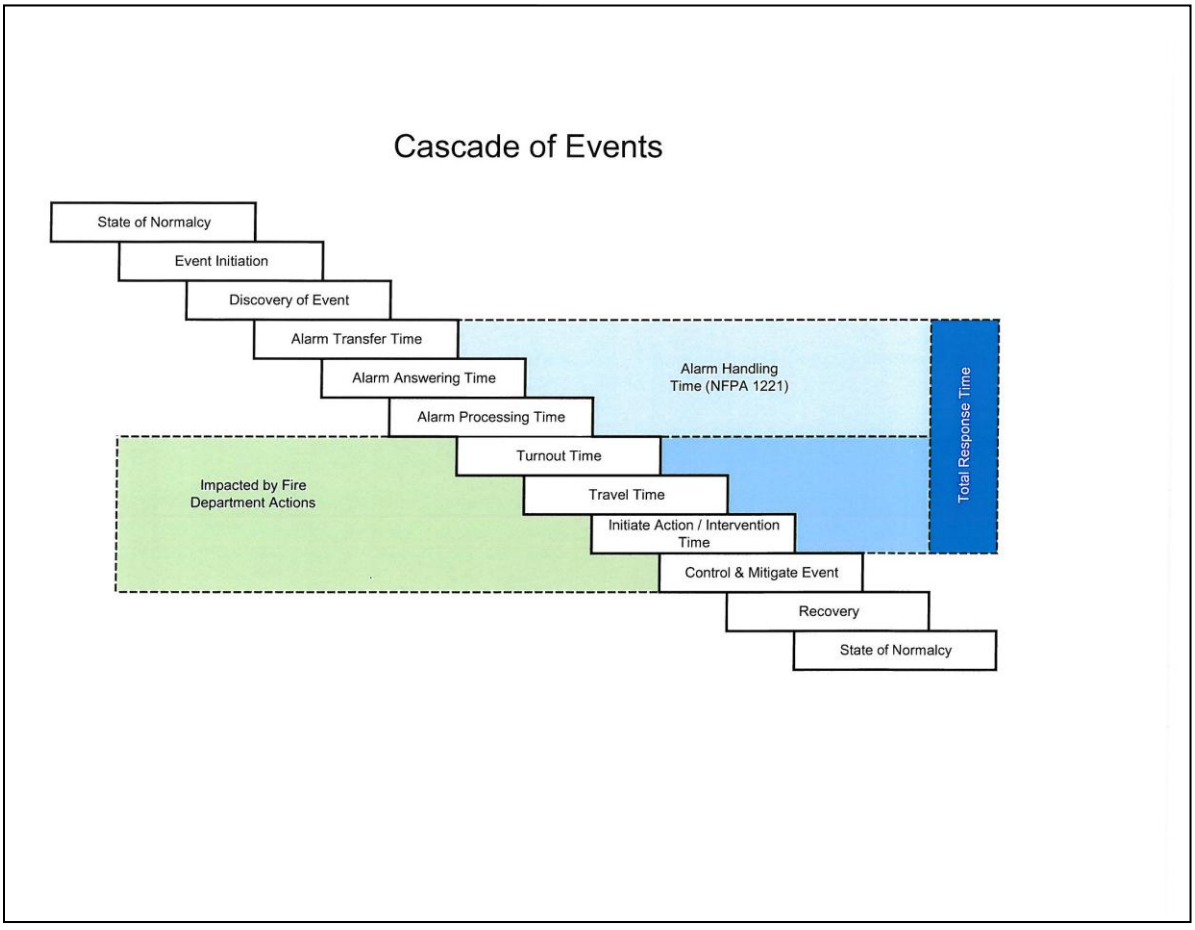
SECTION FOUR: RESPONSE TIME OBJECTIVES

This section discusses the basis for fire department response objectives. Fire department response objectives are typically based on:

1. The dynamics of fire growth.
2. The events involved in a life threatening emergency medical incident.

These two types of emergency responses have extensive scientific information available thus making them quantifiable. This section provides the definitions of response times, a discussion on each of the above items, and the associated department goals.

A. Elements of Response Time



Event Initiation Point- The point at which factors occur that may ultimately result in activation of the emergency response system. Precipitating factors can occur seconds, minutes, hours, or even days before the point of awareness is reached. An example is the patient who ignores chest discomfort for days until it reaches a critical point at which time he/she makes the decision to seek assistance.

Discovery of Event- The point at which a human being or a technologic sentinel (i.e., smoke alarm, infrared heat detector, etc.) becomes aware that conditions exist requiring activation of the emergency response system.

Alarm Transfer Time- The interval between discovery and notification of the emergency response system. An example of this time point is the transmittal of a local or central alarm to a public safety answering point (PSAP). Again, it is difficult to determine the time interval during which this process occurs with any degree of reliability. The alarm transmission interval lies between the awareness point and the alarm point. This interval can be significant, as when the alarm is transmitted to a distant commercial alarm monitoring organization, which then retransmits the alarm to the local 9-1-1 dispatch center. When there is an automatic transmission of the signal, the fire department gains valuable time in controlling the event. Another example of this situation occurs in many jurisdictions when 9-1-1 is called from a cell phone, which often goes to a central answering point and is then rerouted to the appropriate dispatch center.

Alarm Answering Time- The point at which an alarm is received by the PSAP. This transmittal may take the form of electronic or mechanical notification received and answered by the PSAP.

Alarm Processing Time-The time between the first rin g of the 9-1-1 telephone at the dispatch center and the time the computer-aided dispatch (CAD) operator activates the station and/or company alerting devices.

Turnout Time-The interval between the activation of station and/or company alerting devices and the time when the responding crew is aboard the apparatus and the apparatus is beginning to roll toward the call as noted by the mobile computer terminal or notifies dispatch by voice that the company is responding.

Travel Time- The point at which the responding apparatus signals the dispatch center that they are responding to the alarm and ends when the responding unit notifies the dispatcher of its arrival on scene (via voice or mobile computer terminal notification).

On-Scene Time—The point at which the responding unit arrives on the scene of the emergency.

Initiation of Action—The point at which operations to mitigate the event begin. This may include size-up, resource deployment, and patient intervention.

Termination of Incident—The point at which units have completed the assignment and are available to respond to another request for service.

Total Response Time—Alarm processing time plus turnout time plus travel time.

B. Dynamics of Fire Growth and Flashover

In order for firefighters to provide the most effective service, and to significantly reduce the risk of life and property loss, they must arrive at a structure fire in a short period of time with adequate resources. Matching the arrival of resources with a specific point in the fire's growth is one of the greatest challenges for a fire department. Finding the specific point in a fire's growth can be accomplished by identifying the stages of a fire.

Stages of a Fire

Regardless of the speed of growth, or length of burn time, all fires inside a compartment or building go through the same stages. A fire in a compartment begins with the "Ignition" stage and when left unaddressed will develop through the Growth, Flashover, Fully Developed, and Decay stages. One particular stage emerges as being very significant because it marks a critical change in conditions. This phase is called the "Flashover" phase. These stages have no specific time frame for them to occur and will change at each fire depending on fuels and oxygen available.

The following provides a brief overview of the stages of fire within a compartment:

Ignition Stage – Ignition describes the period when a heat source is applied to a combustible fuel package, in the presence of oxygen, and a continuous chemical chain reaction known as combustion begins. At this point the fire is small and generally confined to the material (fuel) first ignited.

Growth Stage – During this stage, the combustion process continues to release increased levels of heat while nearby objects reach their ignition temperature, and begin to burn. Superheated gases rise to the ceiling, spread outward and begin to bank down the walls of the enclosure consuming all available oxygen in the room and raising the heat levels to reach the next stage.

Flashover Stage – Flashover is the transition between the growth and the fully developed fire stages. During flashover, the conditions in the compartment change very rapidly, and the fire changes from one that is dominated by the burning material first ignited, to one that involves all of the exposed combustible surfaces within the compartment.

Fully Developed Stage – The fully developed fire stage occurs when all combustible materials in a compartment are involved in fire. During this period of time, the burning fuels in the compartment are releasing the maximum amount of heat possible for the available materials, and producing large volumes of fire gasses. A fire at this stage requires significantly more resources (water, hoses, and personnel) to control, due to the massive amount of heat energy involved. Also, during this stage, hot unburned fire gasses are likely to begin flowing from the compartment of origin into adjacent spaces or compartments. These gasses

ignite as they enter a space where air is more abundant, causing the fire to spread further.

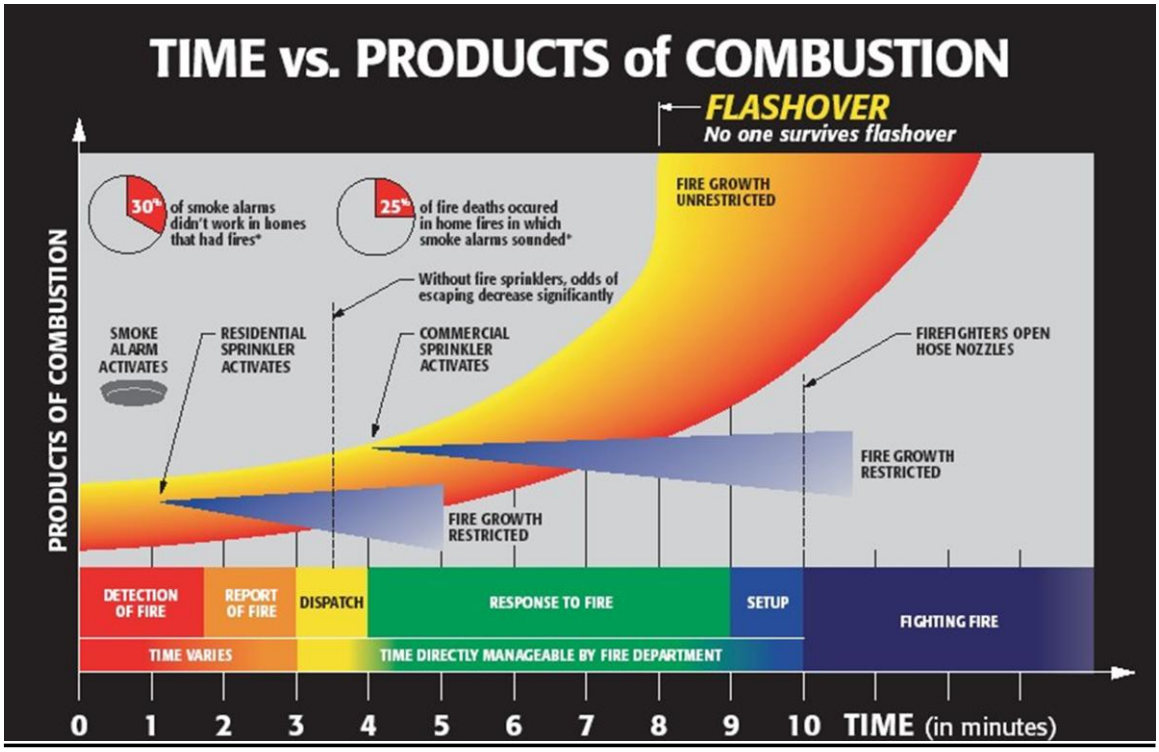
LFD Crews wait for water at the scene of a fire.

Decay Stage – During this stage, the fire diminishes and temperatures begin to decline because the fire has already consumed the available fuels in the compartment.

Flashover

"Flashover" is a critical stage of fire growth for various reasons. The predominate reasons that this phenomenon is so critical is that no living thing can survive in the flashover room, and that it creates a rapid increase in the rate of combustion which requires a greater amount of water to reduce the burning material below their ignition temperature. After flashover has occurred the fire burns much hotter and spreads at a much more significant pace. Once flashover has occurred search and rescue efforts become more difficult in the remainder of the building. Also, the occurrence of flashover causes an increased need for fire suppression personnel to mitigate the incident in a timely manner.

The following graph represents the stages of fire growth. This graph also identifies the time elements involved in flashover such as the detection and reporting of the fire, dispatch processing time, and the fire department's response time.



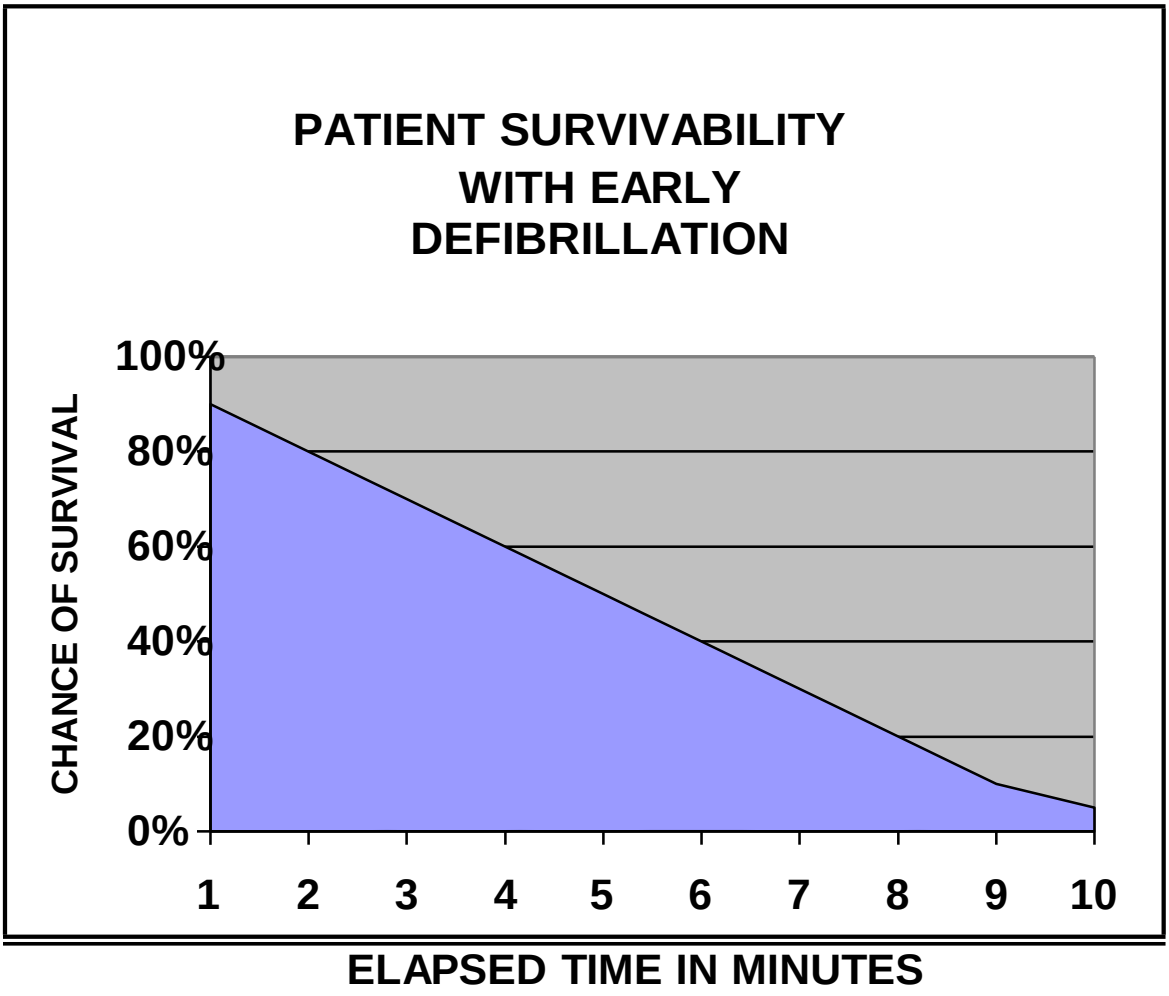
The following table compares pre and post flashover conditions:

Before Flashover	After Flashover
Limited to one room	May spread beyond one room
Requires smaller attack lines	Requires more, and larger attack lines
Search and Rescue is easier/safer	Compounds Search and Rescue
Initial assignment can handle	Requires additional companies

C. Emergency Medical Services Benchmarks and Expectations

Life Threatening Medical Emergencies – Basis for Response Objectives

Using life threatening medical emergencies as a basis for setting EMS response time performance objectives has become a fire and EMS industry norm. The American Heart Association has shown that the likelihood of a patient surviving a life threatening medical emergency is improved if CPR and defibrillation are initiated within 4 minutes of the onset of the medical emergency.



From an emergency medical perspective, the service-level objective typically is to provide medical intervention within a six-minute timeframe, as brain damage is very likely at six minutes without oxygen. However, in a cardiac arrest situation, survivability dramatically decreased beyond four minutes without appropriate intervention. Intervention includes early recognition and bystander CPR.

Early defibrillation is often called the critical link in the chain of survival because it

is the only way to successfully treat most sudden cardiac arrests. When cardiac arrest occurs, the heart starts to beat chaotically (fibrillation) and cannot pump blood efficiently. Time is critical. If a normal heart rhythm is not restored in minutes, the patient will die. In fact, for every minute without defibrillation, the odds of survival drop seven to ten percent. Although effective CPR will prolong our ability to revive the patient, a sudden cardiac arrest victim who is not defibrillated within eight to ten minutes has virtually no chance of survival. The shortest possible response times create the highest probabilities of resuscitation.

D. Response Zones

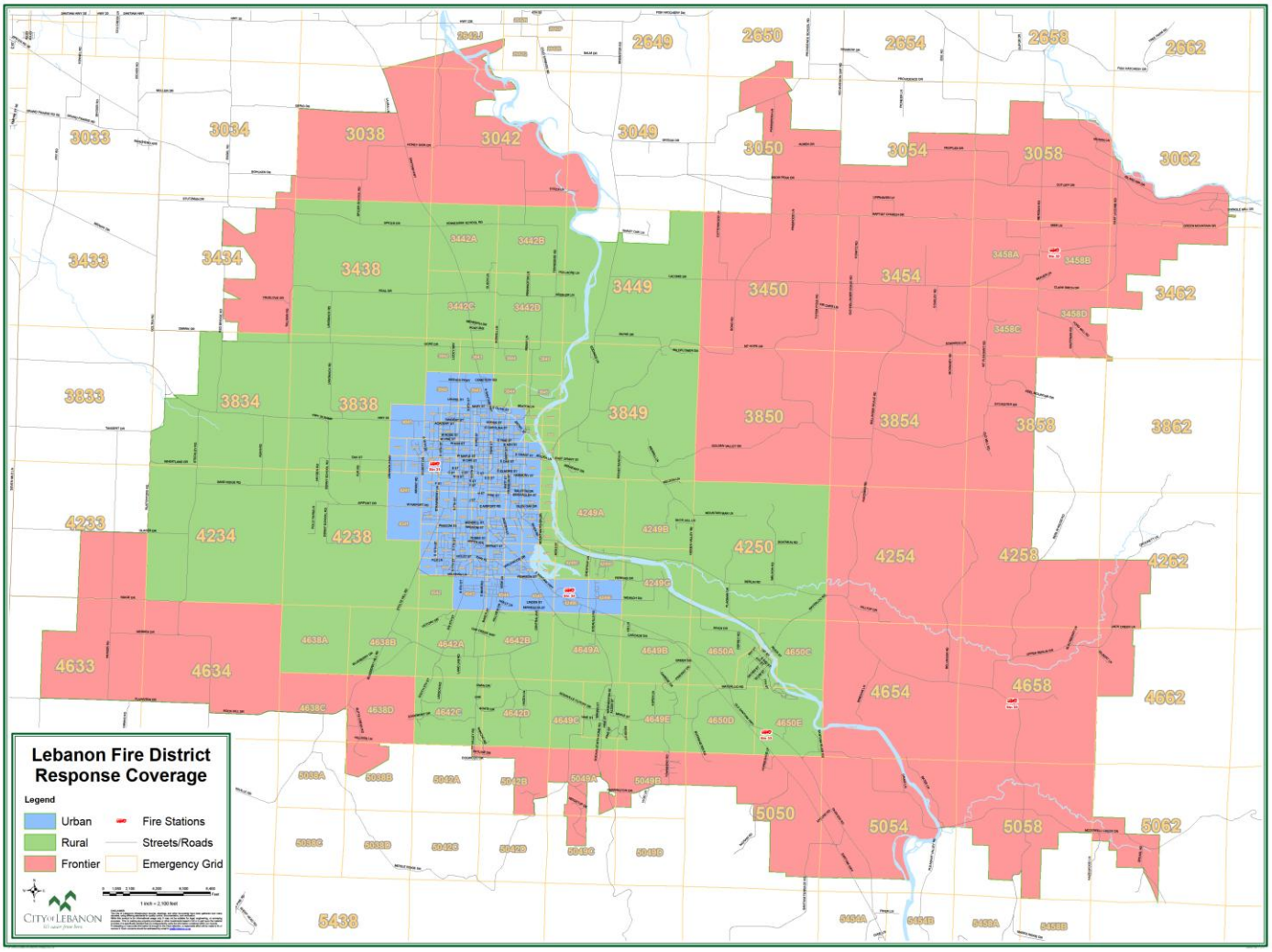
The Lebanon Fire District is not just an urban or rural fire department. We have a relatively dense population base in the city limits and as logic dictates, tends to become less dense as you move outward, save for a few small localities. This variation in population densities presents some challenges when dealing with the distribution of stations throughout the fire district. A station serving 1000 residents in a densely populated area covers a much smaller geographic area than that same station covering 1000 residents in a more sparsely populated area. Therefore, unless the station distribution model is based on area rather than population, average response times will necessarily increase. It is possible to use an areal distribution model, however, the price tag of such a model is cost prohibitive. For these reasons it is unreasonable to expect the same response times for calls in areas of less population density. In order to objectively evaluate our response times while taking into consideration the varying population density within the fire district, we have broken it up into three “Response Zones”.

URBAN – within or near the city limits; most densely populated.

RURAL – adjacent to densely populated areas; moderate population density.

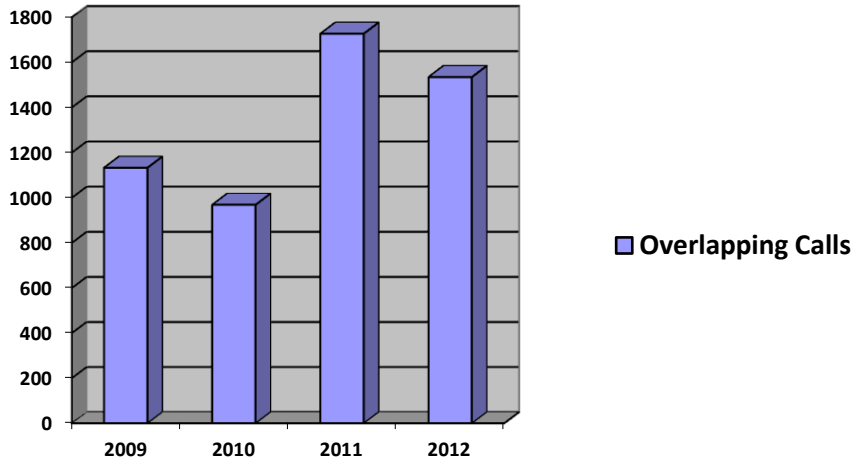
FRONTIER – furthest from population centers; sparsely populated.

The map on the following page illustrates how we have divided the Lebanon Fire District into these zones.


Lebanon Fire District
Response Coverage
Legend
Urban
Rural
Frontier
Fire Stations
Streets/Roads
Emergency Grid
City of Lebanon

SECTION FIVE: RESPONSE RELIABILITY

Response reliability addresses the probability that the required amount of staffing and apparatus will be available when an emergency call is received. If every piece of apparatus in each station were available every time an emergency call was received, the response reliability for each station would be 100%. As the number of calls per day increases, and/or line staffing decreases, the likelihood that a needed piece of equipment and/or personnel will already be busy with an existing incident increases. For example, in November of 2012 there were 135 times when two overlapping calls occurred, 7 times when three overlapping calls occurred, 3 times when four overlapping calls occurred, and 1 time when five overlapping calls occurred. Consequently, during these times, LFD's response reliability decreases. The following chart shows the number of times there have been multiple alarms occurring at the same time:



While LFD utilizes mutual aid agreements to receive equipment and manpower from neighboring departments, response times will be longer than those recommended by NFPA and ASA standards. The following steps have been taken to help bolster staffing levels during times of multiple alarms:

1) All personnel have been issued a pager and are encouraged to return to duty when a "call-back" for personnel is initiated.

.

2) An Automatic and Mutual Aid Agreement is maintained with all fire and ambulance agencies in Linn County.

3) Automatic Aid is pre-programmed through five alarm assignments, providing a systematic method to bring additional resources to the incident as needed.

4) LFD maintains an Automatic and Mutual Aid Agreement with the Oregon Department of Forestry for grass, brush and forest fires.

SECTION SIX: GOALS

A. FINANCIAL

Starting in February of each year, the District prepares a budget that is formulated based on estimates provided by the county. The estimates are for taxable value and the delinquency rate. The proposed budget is presented to a budget committee made up of 5 community members and 5 board members. The budget as passed by that committee is taken to the board and when approved becomes the budget for the upcoming fiscal year (July 1 through June 30). The budget is broken down into four major funds: 020 is the general fund (for fire suppression, training, maintenance, volunteers, operating debt and contingency). 030 is the debt service fund (bond payments). 040 is the ambulance enterprise fund (for all ambulance operations). 070 is non-departmental funds (used as a reserve and savings for expenses that are larger or in the future). The budget document is available for the public to review at any time.

The Board and Budget Committee also set the tax rate for that budget year. Our permanent tax rate is $2.26 per $1000 of assessed value. The tax revenue collected is based on the assessed value times the rate per $1000 of valuation. There are some reductions for taxes that are diverted; like urban renewal districts and enterprise zones. There is also a delinquency rate (those taxed but that have not paid) of between 3 to 8% that further reduces the taxes collected.

Responsible fiscal management is imperative to maintain the public trust and providing the best possible service for their investment.

GOAL #1 – Fiscal Responsibility

Governmental services, like the Lebanon Fire District, are a business by nature, although in the provision of public safety. The District will at all times run as much like a business as possible in the way it deals with its funding. To that end, the District will make every effort to maximize its collection of revenue from: taxes, ambulance collections, FireMed, other bills for service, and all other types of revenue sources to the best of its ability. We realize that the services provided will not always be paid for by the customer directly. The District will try to limit “write offs” if at all possible.

- The District will comply with all federal, state, and local laws and regulations as it pertains to its budget and funding.

- The District will perform an annual independent audit and have that presented to the board for its review and available for the public to inspect.

B. RESPONSE TIME

Staffing and equipment needs can be reasonably predicted for different risk levels and fire stages as well as differing EMS demands. The correlation of staffing and equipment needs with fires according to their stage of growth and EMS call density is the basis for response coverage. The goal is to maintain and strategically locate enough firefighters, paramedics and equipment so a minimum acceptable response force can reach a reasonable number of fire scenes before flashover occurs and a reasonable number of emergency medical scenes before irreparable damage can occur.

For interior firefighting operations a minimum *Effective Response Force* (ERF) of 10 firefighters is needed for maximum effectiveness in combatting the fire. This does not, however, mean that we cannot be taking effective measures to positively influence the outcome of the incident with fewer individuals on the scene of a fire; this will be referred to as the Effective Attack Force (EAF). The EAF will consist of at least 6 personnel and be capable of providing the following and may include but is not limited to: Command, an uninterrupted water supply of at least 250 gallons per minute, staffing an attack and backup line, search and rescue, ventilation, RIT, and/or exposure control. In no way should this be construed to mean that if less than 6 personnel are on scene that steps are not being taken to combat the fire, and or rescue victims. It should also be noted that OSHA 2 in 2 out rules may be waved should there be a clear and present danger to life safety.

GOAL #2 – Turn Out Time

- Between the hours of 0700 & 2200 LFD crews will respond to calls for emergency service within 95 seconds at least 90% of the time
- Between the hours of 2200 & 0700 LFD crews will respond to calls for emergency service within 170 seconds at least 90% of the time.

GOAL #3 – Response Time (First Arriving Unit)

- The first LFD apparatus will arrive on the scene of emergency calls inside the *URBAN* zone within 6 minutes or less at least 85% of the time.
- The First LFD apparatus will arrive on the scene of emergency calls inside the *RURAL* zone within 10 minutes or less at least 85% of the time.
- The first LFD apparatus will arrive on the scene of emergency calls inside the *FRONTIER* zone within 15 minutes or less at least 65% of the time.

GOAL #4 – Effective Attack Force (Fire Calls)

- LFD will have an Effective Attack Force on the scene of working fires inside the *URBAN* zone in 10 minutes or less 80% of the time.
- LFD will have an Effective Attack Force on the scene of working fires inside the *RURAL* zone in 15 minutes or less 80% of the time.
- LFD will have an Effective Attack Force on the scene of working fires inside the *FRONTIER* zone in 20 minutes or less 80% of the time.

C. TRAINING

While it is ultimately the responsibility of the employee to obtain the required training for recertification the District strongly believes that a well-trained competent force is essential to the health & safety of our employees and crucial to providing the highest quality service to our citizens. LFD will make available at least the minimum hours in required categories for fire training as set forth by the DPSST, and will also make available at least the minimum hours in required categories for EMT recertification required by the State of Oregon. LFD crews will also perform the following training evolutions within the time frames outlined below;

a. Donning SCBA & PPE	1 minute 30 seconds
b. Hydrant	1 minute 30 seconds
c. House fire	3 minutes 30 seconds
d. Ladder	2 minutes 30 seconds
e. Vertical Ventilation	3 minutes 45 seconds

GOAL #5 – Quality Improvement

LFD will use training and response experiences to identify training deficiencies. When identified, these deficiencies will serve as a guidepost for future training topics.

D. Equipment

LFD recognizes the importance of having serviceable, up to date equipment to provide critical services to our citizens. This need must also be balanced with the desire to get the maximum service life out of each piece of equipment.

This guideline will be used for the replacement of fire, medical emergency response units and reserve apparatus. There are guidelines from National Fire Protection Association (NFPA) 1901 that give specific time frames for apparatus to be in service, but this does not take into account the amount of use the unit has had. It uses age and or mileage and neither of those are accurate predictors of use or the fact that a vehicle may fail to meet expectations and/or not maintain an acceptable level of operational readiness. LFD will use a model for all apparatus that will look at the maintenance costs as compared to the original purchase price of the unit. Maintenance costs will include preventative and corrective maintenance and will be based on the recommendations of the District's maintenance contractor and best practices.

GOAL #6 – Equipment Replacement

Units will be in front line service (stations 31 or 34) until the maintenance cost of the unit has reached 75% of the original cost of the unit. It will then be moved to reserve status (this may be at 31 or 34 as a reserve or at 32, 33, or 35). It will be kept in reserve status until the unit reaches a maintenance total that is equal or will equal the original purchase cost of the unit. Once 100% of the cost is reached, it will be replaced.

E. Communication

Much like finances, effective internal and external communication, while not a resource to be deployed, is a major community expectation and was identified as such by the SOC committee. While there are many competing notions as to what form those communications should take, arguably the publishing of this SOC document goes a long way towards accomplishing both of those things. Externally, it informs the public of our capabilities. Internally it serves to remind us of the public's expectation and the need for continual self-improvement. Other forums that are utilized for external communications include the yearly newsletter that is delivered to every residential occupancy within the Fire District; staff participation in local civic organizations; the annual Firefighters Day Open House; National Night Out; & public education appearances at local schools, businesses, and community groups.

Although the topic of communications does not easily lend itself to the formulation of S.M.A.R.T. objectives it does not preclude us from developing some very useful objectives to address this subject.

GOAL #7 – External Communication

The LFD will continue to seek out opportunities to interact with and inform our community members at a variety of venues including, civic groups, businesses, schools, fairs, open houses and other events. We will also continue to pursue other means of interacting with the public such as social media, internet and traditional media.

GOAL #8 – Internal Communication

LFD will continue to foster open, honest, meaningful communication between employees.

SECTION SEVEN: CONCLUSION

Standards of Coverage is a system for analyzing resource deployment and determining whether a fire department is properly deployed to meet the communities risks and expectations. SOC's are practical and effective tools for all fire departments and fire districts – career and volunteer, large and small.

NFPA, OSHA, NIOSH standards and other regulatory recommendations all describe what an optimal fire department emergency response would be, to safely and efficiently handle different types of emergencies in a perfect world and without regard to budgetary limitations. Like most fire departments throughout the nation, LFD is unable to meet these "one size fits all" standards. Like every other fire department in the nation, LFD is exceptionally unique. Many factors, including our fiscal situation, staffing, geographic peculiarities, population density, infrastructure, special hazards, and community expectations are not precisely shared by any other fire department in the nation. It is for this reason that these specific Standards of Coverage have been developed.

In the future, LFD will continue to use the NFPA, OSHA, & NIOSH standards as a goal for improvement.

What this study shows is that the Lebanon Fire Districts ability to deal with identified risks and meet community expectations is reliable and effective but not without limitations. For the overwhelming number of calls for service the initial response force is effective. For larger, more complex, or greater alarm calls, initial deployments must be augmented by mutual aid resources, off-duty personnel call-backs, and volunteers. Though response times for mutual aid responses and call-backs can be lengthy when compared with initial response times, they do provide depth when dealing with larger or longer term events. In addition, they also provide district coverage and responses to subsequent calls for service when on-duty crews are already committed.

LFD remains committed to meeting the community's needs for fire protection, emergency medical services, response to hazardous conditions, community emergency preparedness, fire prevention, plans review, interface fuel reduction and planning with the available resources. In order to sustain the current service levels it is necessary to;

- Maintain current staffing
- Maintain a viable volunteer program
- Continue to provide training for critical fireground tasks & EMS skills
- Maintain effective fire prevention & public education programs
- Monitor & evaluate performance against goals for compliance & trends

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