# Timber Mesa Fire & Medical District

Reducing Risks – Protecting Lives & Property



Improving the Quality of Life in the Communities of the White Mountains

Strategic Management Plan 2021-2023

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## TIMBER MESA FIRE & MEDICAL DISTRICT

## Strategic Management Plan **2021-2023**



#### **Our Vision:**

We strive to provide superior fire and medical services by empowering our employees to be proactive risk managers and leaders, who are committed to improved and effective community service.



#### **ACKNOWLEGEMENTS**

The Timber Mesa Fire and Medical District would like to thank the following persons for their contribution to the 2021-2023 Strategic Management Plan:

#### **Fire Board**

Chairperson – Dennis Hughes
Board Clerk – Amy Kay
Board Member – Paul Wyatt
Board Member – Lynn Browne-Wagner
Board Member – Jamie Adams

#### **Citizens Advisory Committee**

Navajo County and Fire District Resident – Darryl Seymore
Town of Pinetop-Lakeside – Stephanie Irwin
Show Low School District and Fire District Resident – Shad Housley
Show Low Police Department and Fire District Resident – Brad Provost
Navajo County Sheriff's Office and Fire District Resident – Brian Swanty
Arizona State Forestry and Fire District Resident – Bob Arthur
Summit Healthcare and Fire District Resident – Aaron Young
Lowes Store Manager – Ryan Kessler
Ironside Engineering and Fire District Resident – Bruce Ironside
Arizona Water and Fire District Resident – Lee Hetrick
City of Show Low – John Wilhelm
Fire District Resident – Rob Hephner
Fire District Resident – James Molesa

#### **Staff and Employees**

Fire Chief – Bryan Savage
Assistant Chief of Administration – Randy Chevalier
Assistant Chief of Logistics – Clay Wood
Assistant Chief of Operations – Josh Livermore
Fire Marshal – Brian Russell

#### **United White Mountain Firefighters**

President – Lars Moore Executive Vice President – Taber Heisler Timber Mesa Chapter President – Ian Schalow

All the valued members of the Timber Mesa Fire and Medical District



#### INTRODUCTION

The Timber Mesa Fire and Medical District (TMFMD) was formed in 2014 as the successful result of collaborative efforts and the merger of the Lakeside, Show Low, and Linden Fire Districts. In 2018, the White Mountain Lake Fire District was consolidated into Timber Mesa as well. Also, in 2018 the Timber Mesa Fire and Medical District was awarded an expanded CON (ambulance service area) to provide ambulance transportation throughout the Fire District and the surrounding communities. Timber Mesa is now the only ambulance provider in the Fire District.

The predecessor Fire Districts each had many years of public service history within their respective communities. That history began with the hard work of dedicated volunteers, working with little resources and more determination than experience. These first members of the districts laid the foundations for what was to come. Milestones were reached; full-time personnel were hired as the needs of the community increased; services were expanded to include all areas of fire, emergency medical and ambulance transportation services.

Ultimately it was determined that by combining the efforts and resources of the four districts, the TMFMD could more effectively provide risk management, medical, and fire suppression services to the communities in the White Mountains. Today, the organization provides all hazards response to the District and its citizens. These professional full-time fire and medical services include state-of-the-art Advanced Life Support (ALS) and transportation services. Beyond traditional services, the TMFMD is progressing rapidly toward an integrated risk management model. This model will change the fire service as we know it as we adjust our posture from a predominantly reactive force to a more proactive community risk reduction model.

The District provides an exceptional level of emergency and customer services. We maintain cooperative agreements with area partners to provide a higher level of service for the community. We have developed alternative revenue sources including ambulance transportation, wildland fire response and a robust fleet services division that have reduced the burden on the primary revenue source and helped provide this higher level of service.

This Strategic Plan has been developed to set a course and outline the direction of the TMFMD in its pursuits to meet our Mission. This plan is a management tool for the staff and elected officials; it is designed to identify our achievements, values, goals and objectives. It was developed through an analysis process involving input from all levels of the organization and the communities we serve. It is designed to be progressive and meet the needs of the District and its customers. This is not a static document; it will require review and revision on a periodic basis. To make the plan work, we must have "buy in" from all members of the organization and our community partners. Each stakeholder has a role in the success of the plan.



#### **VALUES**

The Timber Mesa Fire and Medical District is a public service organization. We exist to serve, protect and educate the community and our customers. It is our philosophy that the organizational values drive our decisions and actions.

#### **PEOPLE**

Our employees are our most valuable asset; without their commitment and respect, our Mission cannot be achieved. We are committed to their welfare and safety. We recognize that our customers are deserving of our respect, concern, and care.

#### **INTEGRITY and TRUST**

We value the public's trust, and we are committed to honest, ethical behavior in the achievement of our Mission. The members are accountable to our community and the District in all we do.

#### **PROFESSIONALISM**

We are a professional organization, and we recognize that members have the responsibility to always ensure professional conduct. Professional service is achieved by providing well-trained, dedicated, competent and hard-working members.

#### **CUSTOMER SERVICE**

We believe in selfless service. We are here to serve our customers; going above and beyond to make a positive impact on our community. We are a community owned and operated entity which exists to serve our customer's needs.

#### FISCAL RESPONSIBILITY

We are a publicly supported organization with financial responsibility to our citizens. We value this relationship and strive to remain cost-effective in our service delivery.

#### **TEAMWORK**

We believe in a team-oriented, positive, progressive approach to management. We seek out and value input from all levels in the organization, our neighboring agencies, and our community. We encourage the members to take ownership of their responsibilities in the District.

#### INNOVATION

We value innovation and change. We must change and evolve to meet the future needs of our customers. We will seek new methods, resources, training/education, and cooperative agreements to meet these needs.

#### **LEADERSHIP**

We are community leaders. We benefit our customers through risk management, emergency services and community involvement. The District will implement policies and procedures based on industry best practices to demonstrate our commitment to our community and our members.



#### **ACHIEVEMENTS**

The Timber Mesa Fire and Medical District has had many achievements in its brief history. This list represents recent achievements that have had a significant impact on the direction of the organization and benefit for the community.

- 2020 Completed first ever Engineer Academy.
- 2020 Opticom traffic preemption improved safety and improved response times.
- 2020 Added an Assistant Chief of Administrative Services with responsibility for oversite of administrative services, grants management and public information.
- 2020 SAFER funding for 9 new firefighters. Increased staffing at three fire stations.
- 2020 Promoted Division Chief of Fire Prevention. Added Fire Inspector position.
- 2020 Promoted Division Chief of Medical Services.
- 2020 Recognized by GFOA for Excellence in Financial Reporting for the third consecutive year.
- 2019-2021 Dedicated capital funds to provide a second set of PPE to all firefighters as a part of the District's cancer prevention efforts.
- 2019 The District earned an ISO Protection Class III rating making the Fire District among the top 10% of Fire Departments/Fire Districts in the Country.
- 2019 Developed the Job Task Analysis (JTA) to evaluate firefighter fitness.
- 2019 Worked with Summit Hospital to procure equipment for telemedicine.
- 2019 Trained all personnel in Blue Card Incident Command procedures.
- 2018 Awarded Expanded CON for ambulance services.
- 2018 Completed the Bison Ridge annexation.
- 2018 Awarded AFG grant for the purchase of a new rescue/ambulance.
- 2018 Partnered with regional fire providers to secure AFG funding for new SCBAs.
- 2018 Station 17 completed and dedicated to the service of the Linden community.
- 2017 Prepared the first Comprehensive Annual Financial Report (CAFR).
- 2017 Top of the Woods recognized as District's first Firewise community.
- 2017 First ever Meet and Confer MOU with the Firefighters Association.
- 2016 Awarded Premier Provider status from the Az Dept. of Health Services.
- September 19, 2014 The TMFMD was established.
- 2008-2014 Real estate market crashes in 2008 leading to a prolonged period of decline in assessed values for real property. This was a driving force behind regionalization.



## DISTRICT DEMOGRAPHICS AND SERVICE LEVELS

#### DISTRICT DEMOGRPHICS (Approximate) District Size..... 216 square miles Ambulance Transport Service Area (CON).. 440 square miles Full-time Resident Population..... 34,500 Part-time, Seasonal Population..... 70,000 (est.) Stations..... 7 (5 with full-time staffing) Suppression Staffing – (Full-time)..... 86 Administrative Staffing..... 5 (Includes Chief Officers) Training Division Staffing..... 3 Logistics Section Staffing..... 4 Community Risk Management..... 3 Volunteer Inspectors..... Fleet Staffing..... \$13,931,708 Budget – 2020/21.....

Current grant obligations, intergovernmental agreements, state requirements and national standards suggest a staffing level of four firefighters for engine companies and two firefighters for rescues providing medical transport. This level is maintained to provide safe and effective fire suppression activities and life safety for our customers and members.

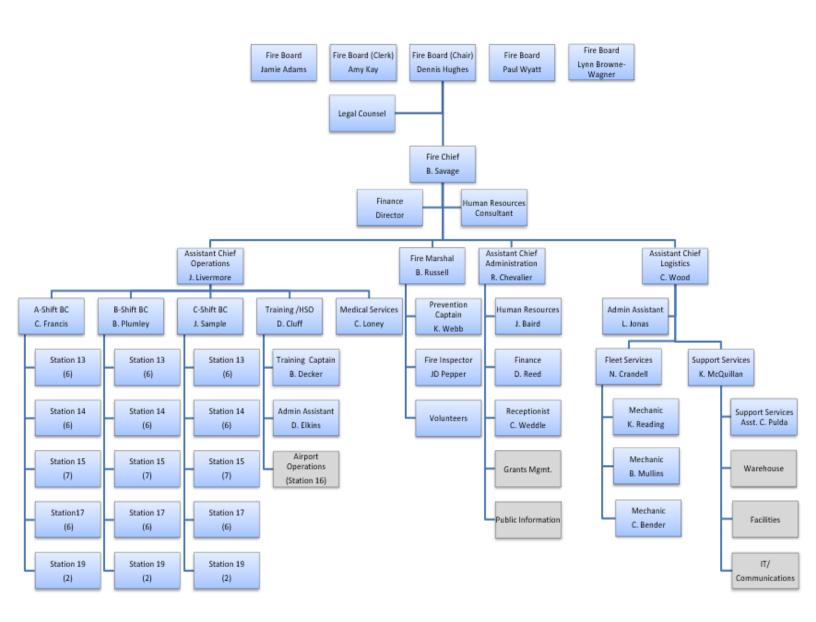
The Timber Mesa Fire and Medical District strives to maintain this level and provides advanced life support medical treatment with every staffed unit. Emergency medical service is the most utilized service provided to our customers.

The District will respond to any emergency that threatens life, safety, or property. Timber Mesa will dispatch the closest available unit(s) with appropriate capabilities to control the emergency or provide the service. Timely response and effective management of medical, rescue and fire control situations represent the most immediate priorities of the Fire District.

We also respond to various non-emergency situations that are not routinely handled by other agencies or providers. These non-emergency responses would include things such as wellness checks, home safety surveys, in-home healthcare, pest removals, and other situations to assist our customers. Our community risk reduction strategies are based on the premise that we can proactively attempt to address our customer's needs and meet the basic goals of our Mission before someone must access the 911 system.



#### ORGANIZATIONAL CHART

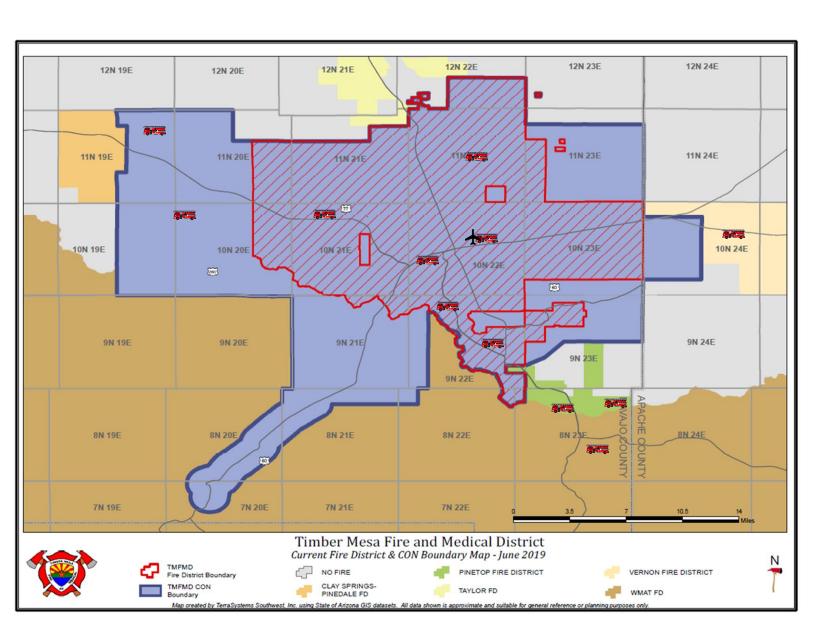


#### **Our Mission:**

The Timber Mesa Fire and Medical District is a public service organization dedicated to proactive efforts to reduce risks in the communities of the White Mountains and protect our customers lives and property.



#### FIRE DISTRICT BOUNDARIES



#### **Automatic Aid**

We work closely with our neighboring fire departments and fire districts to always provide the quickest response to any emergency. Timber Mesa maintains automatic aid agreements with Pinetop Fire District, Heber-Overgaard Fire District and the White Mountain Apache Fire and Rescue Department at Hon-Dah. Additionally, we have mutual aid agreements with all Arizona fire districts and departments.



#### **GOALS AND OBJECTIVES**

The Timber Mesa Fire and Medical District is a customer service based organization.

#### **Strategic Goals**

The strategic goals were developed through a process of analysis looking at past history, present situation, and future needs. This analysis included input from all levels of the organization and considered customer comments and needs of the community. The staff was tasked with developing objectives that address each of these goals.

#### **Strategic Objectives**

The objectives outline the actions which will be taken to address the issues identified in the strategic goals. In some cases, these objectives are broad and need further research by the staff and members. In other cases, the information in the objectives is more specific and addresses fiscal issues and timelines.





#### STRATEGIC GOALS

#### The following thirteen goals are identified for this strategic plan:

- 1. Employee Health and Safety
- 2. Strengthening Partnerships and Agreements.
- 3. Employee Relations and Retention.
- 4. Providing and Maintaining Adequate Staffing and Service Levels.
- 5. Expand and Improve Medical Services.
- 6. Providing Training to Meet the Needs of the Organization and the Community.
- 7. Providing and Maintaining Facilities Adequate for the Organization, Services and the Community.
- 8. Continue with an Apparatus and Vehicle Replacement Program to Meet the Needs of the Services and the Organization.
- Developing the Code Enforcement Program to Meet the Needs of the Community and Provide for Improved Life Safety.
- 10. Maintaining and Improving the Community Risk Reduction Program to Ensure a Safer Community.
- 11. Invest in Technology to Improve Current and Future Service Delivery Capabilities.
- 12. Improve communications with our community, our employees and for emergency response.
- 13. Evaluate Fire District performance to ensure constant improvement.



#### **Employee Health and Safety**

**Description of Goal:** Firefighters and emergency medical responders face occupational hazards unlike most other industries or professions. Recent studies indicate that the incidents of cancer diagnosis among firefighters are between five and eight times higher than the general population. Further we know that mental health services are critical to our personnel as they are asked to witness events and treat people in scenarios that most people could not imagine. Finally, cardiac issues continue to plague the fire service and are still among the leading causes of line-of-duty deaths in the fire service.

At Timber Mesa we believe that our employees are our greatest asset. One of our goals is to see our employees remain healthy throughout their career so they can provide services to the community, but also to enjoy a life with their family well into retirement.

## \*\*\*\*\*\*\* \*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\* \*\*\*\*\*\*\*

	Objective	Timeline for Completion
1.1	Recruit and select Fire District Chaplain.	FY 2021/22
1.2	Improve Employee Assistance Program (EAP) for employee mental health and assure that suicide prevention is included in EAP programs.	FY 2021/22
1.3	Develop a near miss/accident and injury review board and link the review board's findings to program review and revision.	FY 2021/22
1.4	Provide a second set of personal protective equipment (PPE), inclusive of firefighting gloves and barrier type hoods, for each firefighter.	FY 2022/23
1.5	Develop a plan to retrofit each Fire District facility to comply with current and relevant codes, regulations, and standards for the health and safety of our employees and the public.	FY 2022/23
1.6	Improve health and wellness programs specific to cancer and cardiac risks to provide for medical physical, fitness needs and employee mental health.	Annual



#### **Strengthening Partnerships and Agreements.**

**Description of Goal:** Work with local and state agencies to strengthen partnerships. Look at additional agreements with governmental agencies and private organizations to provide better services, share resources and costs to reduce the fiscal burden to the District and its citizens.



Currently we have several partnerships and agreements in place; we need to look at additional opportunities and understand that we are not an independent organization. We are dependent on our neighboring districts and other state and local agencies for resources and funding. We need to address issues within our District, understanding that what we do, and what these other organizations do, impacts our customers.

	Objective	Timeline for Completion
2.1	Evaluate the Fire District's operations, administration, and support services for shared services opportunities to achieve greater efficiencies for our customers.	Ongoing
2.2	Continue to work with our municipal, County, State government, and community partners to develop stronger working relationships and maintain influence at all levels.	Ongoing
2.3	Update and revise Arizona State Forestry Agreement to reflect current needs, resources, and compensation.	Annually
2.4	Create emergency operations plans in cooperation with local law enforcement agencies and local school districts to provide for unified command and to address significant safety, security, mass-casualty and fire events at our local schools and other target hazards.	FY 2021/22
2.5	Work to annex all areas within or adjacent to District boundaries and inclusive of any areas currently served within the District's CON.	FY 2022/23



#### **Employee Relations and Retention.**

**Description of Goal:** Our organizational strength is our members. The core are the professional full-time staff that provides the services to our customer's every day. Providing for employee relations and retention ensures that we can provide for our customers on an ongoing basis. We should not look exclusively to the local market for new employees. Outside factors influence and drive our candidate pool. We must be competitive on a regional level when addressing wages, benefits and working conditions. Many of our candidate applications are from outside this local area.

TMFMD completed a wage and benefit review in 2019 and made adjustments to stay competitive in the marketplace. Future changes relating to wage adjustments should be based on appropriate market analysis identified by the District staff and governing board. We recognize that employee retention is driven by wage, benefit and working

condition issues. Employee turnover costs money; an average of \$10,000-\$15,000 per employee, not including the loss of experience and training. This money is better spent on employee retention or "wages and benefits", we pay for it either way.



STRATEGIC OBJECTIVES 3				
	Objective	Timeline for Completion		
3.1	Staff will conduct a market analysis and make recommendations to the Board about wage/benefit changes to remain competitive.	Annually		
3.2	Review Military Leave Policy and make recommendations to the Fire Board concerning changes to procedures and benefits afforded to our members who serve in the National Guard and Reserves.	FY 2021/22		
3.3	Improve internal customer support specifically related to increased service demand and interfacility transport services.	FY 2021/22		
3.4	Establish Fire District traditions so that employee performance and accomplishments are recognized and celebrated appropriately.	FY 2021/22		
3.5	Develop a culture of constant feedback. Evaluate current processes and establish mechanisms to evaluate employee and supervisor performance (e.g. 360 evaluation tool)	FY 2022/23		



#### Provide and Maintain Adequate Staffing and Service Levels.

**Description of Goal:** The Timber Mesa Fire & Medical District has the responsibility to maintain staffing to meet the response performance and customer service needs of the growing District. These needs are influenced by several factors:

- 1. **Call Volume** 7314 Incidents for calendar year 2020 (39% increase over 4 years).
- 2. **Agreements** Automatic Aid and State Land Agreements have required staffing levels. (Requires a staffing level of four firefighters for fire companies)
- 3. **National Fire Protection Association** (NFPA 1500 and 1710) addresses minimum staffing requirements for Engines, Ladders and Rescues.
- Occupational Safety and Health Administration (OSHA CFR 1910.134)
   Requires (4) firefighters assembled before any interior firefighting is performed.
- 5. **Insurance Services Organization** ISO deployment analysis suggest appropriate staffing and deployment to improve protection class.
- 6. **Size of the District** Distance and response times to all areas of the District.

The Staffing and Deployment Analysis (appendix A) identifies the factors that need to be considered in planning the future needs of the Timber Mesa Fire & Medical District.

	Objective	Timeline for Completion
4.1	Hire medical biller for primary billing to increase ambulance revenue.	FY 2021/22
4.2	Hire a grant writer to bring additional non-tax revenue to meet capital and staffing needs.	FY 2021/22
4.3	Hire a facilities maintenance person to perform maintenance and oversee repairs/improvements.	FY 2021/22
4.4	Hire additional firefighters to be assigned as "rovers" on each shift (3 firefighters per shift/9 firefighters in total) to limit overtime expense.	FY 2021/22 thru FY 2023/24
4.5	Develop a succession plan for all non-suppression positions in the organization.	FY 2021/22
4.6	Add an EMS Captain or Training Captain's position	FY 2022/23
4.7	Hire a service writer/admin. assistant in Fleet Services to perform clerical work and data entry.	FY 2022/23



#### **Expand and Improve Medical Services.**

**Description of Goal:** Emergency medical and transport services make up approximately 73% of total calls for service. Transportation services are a significant source of alternative revenue; it is the largest consistent source of revenue after property taxes. Paramedic services are the number one services utilized by our customers and historically save more lives than fire suppression activities.

Modern day fire service agencies are providing more and more medical services. There are several opportunities to extend additional medical services to our customers and to

recover the cost associated with these services. Consistent with the larger vision of the TMFMD to be more proactive to make our community safer, medical services such as community integrated paramedics, in-home health care, bariatric transportation, convalescent transportation, and specialty care ground transports are all opportunities for us to create better outcomes for our citizens.



	Objective	Timeline for Completion
5.1	Staff will work with Summit Hospital to better facilitate interfacility transports including triaging and communicating urgent and non-urgent transfers and scheduling transfers when possible.	FY 2021/22
5.2	Work with Summit Hospital to place into service telemedicine equipment per the requirements of the Health Resources and Service (HRSA) grant.	FY 2021/22
5.3	Acquire power gurneys for all rescues and pursue grants for power load systems to improve bariatric transport capabilities and employee safety.	FY 2021/22
5.4	Evaluate alternative response models and equipment to improve services and efficiency in EMS delivery.	FY 2021/22 and ongoing
5.5	Seek grants or other finance options to replace heart monitors for consistency and service life.	FY 2021/22
5.6	Consider additional rescues (ambulances) as indicated by call data. (may be seasonal or full-time as determined by service demand.)	FY 2022/23



## Providing Training to Meet the Needs of the Organization and the Community.

**Description of Goal:** Training is a critical and ongoing need for the organization. Our employees are required to engage in more than 26,000 hours of training per year. Providing quality training is essential to maintaining the high standards of service provided by the District. We have a need to provide specialized training to meet new challenges and improving technologies.



In addition, we have a need to develop our officer training program to provide more training to current and future officers within the organization. We need to expand the scope of training provided in the past. Our members need more exposure to specialized training and should be provided with opportunities for employee development.

	Objective	Timeline for Completion
6.1	Continue to promote employee development through tuition reimbursement funding.	Ongoing
6.2	Complete and publish Standard Operating Guidelines Manual.	FY 2021/22
6.3	Implement initial training program for company officers (Captains' Academy).	FY 2021/22
6.4	Increase the availability of EMS training to stay current with standards and protocols and to develop additional skills consistent with emerging technology and as authorized.	FY 2021/22
6.5	Provide training in specialty response (e.g. ice rescue) consistent with the District's risk profile and national standards. (NFPA 1670)	FY 2022/23
6.6	Provide training for paramedic students each year as needed for staffing requirements.	Annually



## Providing and Maintaining Facilities Adequate for the Organization, Services and the Community.

**Description of Goal:** TMFMD has eight facilities/sites strategically placed throughout the District. At present time, only five stations are staffed with full-time staffing. The airport station/facility is being used for our training staff and the other stations house reserve fire apparatus.

Many of these buildings have been used for many years but have not always been maintained properly. There is a need to look at major repairs or remodel issues in the future for these facilities. Some of these facilities are no longer necessary for District



use and should be sold to minimize maintenance costs.

Other facilities will be added, and most will stay in our inventory for a very long time. It is necessary that we provide proper and timely maintenance at all our facilities to ensure their longevity and to protect the taxpayer's investment.

	Objective	Timeline for Completion
7.1	Make improvements to administration site to include training/board room and parking lot.	FY 2021/22
7.2	Begin development of training site by installing necessary underground infrastructure.	FY 2021/22
7.3	Purchase and assemble modular training tower for routine live fire and other fireground training simulations.	FY 2021/22
7.4	Make necessary repairs to the roof at Station 13 and update station to NFPA Standards.	FY 2022/23
7.5	Update Station 15 to comport with NFPA Standards to include battalion chief quarters.	FY 2022/23
7.6	Secure funding and build fire prevention offices at administration/support services site.	FY 2023/24
7.7	Secure funding and complete training site development to include training classrooms, office buildings and other necessary site facilities.	FY 2023/24

#### Develop and Implement an Apparatus Replacement Program to meet the needs of the Services and the organization.

**Description of Goal:** TMFMD has a large fleet of vehicles including engines, ladders, ambulances, water tenders, brush trucks and staff/support vehicles. We must adopt and implement a plan for replacement of these vehicles to ensure that we can meet our service and fiscal responsibilities. The following outlines some of the issues used to develop an apparatus replacement plan:



- 1. NFPA-1901 Standards for Fire Apparatus.
- 2. Mission and needs of the community and organization.
- 3. Age of vehicles.
- 4. Operating and maintenance cost of vehicles.
- 5. Agreements with neighboring departments.
- 6. Financial plan for replacement program.

Considering these issues, the following conclusions were made for the TMFMD Fleet replacement plan:

- 1. Apparatus replacement plan must be implemented and funded to meet operational needs.
- 2. Condition of fleet is good, but maintenance issues and costs are ever increasing and are projected to increase more as fleet ages.
- 3. Replacement costs increase from 5% to 20% each year.
- 4. Vehicles should be removed from fleet when not needed to reduce operational costs and increase resale value.

#### Replacement Goals

Vehicle Category	Years Frontline Service	Years Reserve Service
Engines (Type 1 & 3)	10	5-10 <sup>(1) (2)</sup>
Ladders	10-15	5-10 <sup>(1) (2)</sup>
Tenders	15	5 (1) (2)
Rescues (Ambulances	s) 10	5
Brush (Type 6)	15	5 <sup>(1)</sup>
Staff/Command	6-8	5-7 <sup>(1)</sup>

- (1) Length of time in reserve dependent on operating cost and operational need.
- (2) Maximum time in fleet is 20 years (NFPA-1901)



### STRATEGIC OBJECTIVES 8

#### Long Range Vehicle Replacement Plan 8.1

VEHICLE/TYPE	2020-21	2021-22	2022-23	2023-24	2024-25
ENGINE			1 – Type 1		
LADDER					
TENDER		1 – Type 2		1 – Type 2	
RESCUE	1 – Type 1	1 – Type 1		1 – Type 1	1 – Type 1
BRUSH	T3 - Refurb		1 – Type 6		1 – Type 6
SUPPORT		3 Boats			
STAFF	2 – ½ Ton	1 – ½ Ton	1 – ½ Ton	1 – ½ Ton	1 – ½ Ton
TOTAL COST (est.)	\$410,000	\$600,000	\$825,000	\$645,000	\$530,000
SURPLUS	06 Durango	00 Ambo 00 Tender	03 Type VI 07 F-250	04 Ambo 00 Tender	01 Pierce 03 Type VI

\* The number of ambulances purchased, and the frequency of replacement may change depending on opportunities to expand or enhance medical services.











#### STRATEGIC GOAL - 9

## Developing the Code Enforcement Program to Meet the Needs of the Community and Provide for Improved Life Safety.

**Description of Goal:** Fire prevention and code enforcement are critical activities that help the District meet its mission to keep our community safe. Fire prevention and code enforcement must be a priority of the District. History has shown that emphasis on this one area can have the greatest impact on our customer's lives and property and meet our primary mission to reduce risks in the communities we serve.

	Objective	Timeline for Completion
9.1	Maintain an effective annual inspection program for all commercial occupancies with the District, with the goal of bringing existing occupancies up to current safety codes.	Annual
9.2	Maintain current fire and life-safety codes in cooperation with the municipal and County building departments and include, as optional, Fire Adapted Communities development standards.	FY 2021/22
9.3	Seek an IGA with each jurisdiction to establish and maintain a uniform process with municipal and county governments so that all commercial plans are reviewed for code compliance prior to construction and/or remodel.	FY 2021/22
9.4	Complete preplans for all commercial occupancies in the Fire District and digitize those preplans for use by crews during emergency response.	FY 2022/23





## Maintaining and Improving the Community Risk Reduction Programs to Ensure a Safer Community.

**Description of Goal:** Due to our demographics, the TMFMD has a very active public education program. All Show Low and Blue Ridge Schools, as well as others, are in our District and rely on the Fire District for fire and life safety education programs. The District is also the primary contact point for distribution and installation of child car safety seats, smoke alarms and other resources for the area. We work in conjunction with other fire districts, police agencies and the hospital to provide these services to the community.

These efforts are necessary, and we meet a need in our community that is not available from other agencies. We need to support these programs with trained staff and provide additional funding. As part of changing our service delivery, moving from a largely reactive response-oriented service to a more proactive risk reduction model, our community risk reduction programs will require more attention and funding than ever before. We will spend our resources and time to try and ensure a safer community before anyone dials 911 rather than wait to respond to their emergency.



	Objective	Timeline for Completion
10.1	Perform hydrant maintenance and inspections.	Annually
10.2	Continue to work to collect data for all CRR activities including during routine responses.	Ongoing
10.3	Continue Firewise programs in cooperation with area partners with the goal of adding at least one Firewise designated community each year.	Ongoing
10.4	Develop curriculum and work to educate building officials and contractors on fire suppression systems in both commercial and residential applications.	FY 2021/22
10.5	Work to create a tax incentive for the installation of residential fire sprinklers.	FY 2021/22
10.6	Explore opportunities for funding and establish a public/private initiative for fuels reduction programs in the District.	FY 2022/23



### Invest in Technology to Improve Current and Future Service Delivery Capabilities.

**Description of Goal:** Similar to every other industry, the fire service is becoming more and more technology oriented. The risks that our firefighters face and the means with which they respond to those risks are increasingly complex. The technologies used to keep our firefighters safe, respond to emergency and nonemergency incidents, and collect and report data are changing and evolving just as quickly as other forms of technology such as computers, cell phones and even automobiles.

To meet the future needs of the community, the District will need to make a concerted



effort to keep up with evolving technologies. Already, the potential uses of the software and hardware that are available on the market far exceed our current capabilities in the District. Our community and our members deserve the very best we can offer; to provide that, we will have to work to improve our technological capabilities.

	Objective	Timeline for Completion
11.1	Continue to improve technologies available in the District's dispatch center (AVL, MDTs, etc.).	Ongoing
11.2	Update financial and billing software to improve compatibility with other software in the District.	FY 2021/22
11.3	Update field mapping software within the dispatch center and available through the MDTs to include all relevant information for routing, preplans, etc.	FY 2021/22
11.4	Evaluate and implement asset management software to enhance supply ordering, distribution, and tracking.	FY 2021/22
11.5	Work with regional partners to improve infrastructure in the communities of the White Mountains for improved public safety and emergency response, and to improve our customers quality of life.	FY 2021/22 and ongoing



Improve communications with our community, our employees and for emergency response.

**Description of Goal:** Communications is central to everything we do. Whether it is day-to-day business, commanding an emergency scene, or informing the public of Fire District activities, communications is cited as a challenge, or a weakness, universally.



Fire ground communications includes effective planning, robust communications infrastructure, standard communications models, and mobile equipment in the field. Every aspect of emergency communication requires ongoing investment and constant maintenance. To further the challenge, there are parts of the communications process that we have direct control over, and others that we do not. We rely heavily on the Show Low Police Department for dispatch services Computer Aided Dispatch (CAD) system maintenance, dispatcher training, etc.

Our communications with our employees, and our customers, is also a persistent challenge. We must communicate constantly with our employees so that we are all able to support the Vision and the Mission of the organization. Additionally, it is our responsibility to ensure that the public is well informed about what we are doing and how that is a benefit to the residents, visitors, and business owners in the District.

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	Objective	Timeline for Completion		
12.1	Continue to create public outreach messages to educate public on risk reduction strategies.	Ongoing		
12.2	Staff will improve internal communications and processes so that employees and the Board are informed of all District activities.	Ongoing		
12.3	Evaluate communications infrastructure and equipment and make changes or improvements as necessary to facilitate safe, effective, and reliable incident communications.	FY 2021/22 and ongoing		
12.4	Ensure that Fire District activities, accomplishments, and changes are communicated effectively to our customers through all media platforms.	FY 2021/22		
12.5	Take advantage of available technology to make it easier for members and the public to access information about the Fire District (e.g., Timber Mesa App).	FY 2022/23		



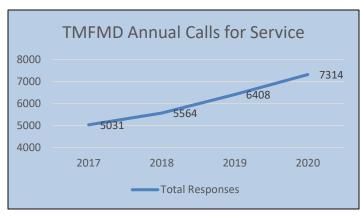
#### **Evaluate Fire District performance to ensure constant improvement.**

**Description of Goal:** The Timber Mesa Fire and Medical District is dedicated to constant improvement. Our intent is to always work to improve our services and to create greater efficiencies for our customers and our employees. Each of our employees is empowered, and encouraged, to bring forth suggestions for improvement. We also routinely solicit input from our community partners and the people we serve.

When evaluating the performance of an emergency response system there are several factors to include: area demographics, demand on the system, geographical distribution of resources, service types and demand, response criteria and performance, deployment model, national standards, benchmarks compared to other similar

jurisdictions, etc. All of these require robust reporting systems and data analysis capabilities.

Timber Mesa has made significant recent improvements to enhance data collection. Additional improvements need to be made to ensure we are collecting the right data and then to ensure that the data is useful to improve performance.



	Objective	Timeline for Completion
13.1	Staff will work to prepare for the Insurance Services Organization reevaluation in 2023 with the goal of achieving a protection class rating of 2/10W.	Ongoing until 2023
13.2	Staff will develop a Standards of Cover document to identify the current and expected service demands and a plan to meet those demands.	FY 2021/22
13.3	Staff will work to improve data collection and reporting to assist the staff and the Board in making more well-informed decisions for service delivery.	FY 2021/22 and Ongoing
13.4	Staff will prepare for fire department accreditation through the Center for Public Safety Excellence (CPSE) to demonstrate constant improvement, transparency, and accountability to our community.	FY 2023/24

The implementation of the District's first Strategic Plan began in January 2015. The District Board, Administrative Staff and program managers have, and will continue to use the current iteration of the plan for planning and budgeting for the District. Specific groups or individual program managers may be tasked with implementation of any objective(s) within the plan. In addition, work groups may be formed to address specific issues or items. A District officer will be assigned to address items within the plan within their area of responsibility. This officer is responsible for making sure the objective or goal is completed in the timeline specified within the plan.

Each one of the strategic goals and objectives will be reviewed semi-annually and one goal will be reviewed at monthly staff meetings. In addition, the Fire Board and Fire Chief should review this plan annually prior to the budget preparation cycle for the next fiscal year. The plan should be updated annually to meet the on-going and dynamic changes of the community and the District.



## Timber Mesa Fire & Medical District

## Staffing and Deployment Analysis



February 2021

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#### **EXECUTIVE SUMMARY**

This analysis identifies the factors that need to be considered in planning the future needs of the Timber Mesa Fire & Medical District (TMFMD). Its focus is on the deployment of resources relative to structural fire protection, medical services and other calls for service. This analysis serves as the "core" around which other programs are planned for.

The analysis begins with an explanation of the considerations and assumptions that are utilized in analyzing and planning for medical services delivery and fire protection systems. It discusses and describes what fire and medical companies do on the scene of an incident and how fire progresses through the structure. It also defines the response time model and how companies are strategically located. An explanation of NFPA 1710 is also given; this is an important section for the reader to understand.

The recommendations are based on data collected and analysis of that data based on national models. These recommendations in of themselves are not a plan, but are used to support current and future planning.

The analysis then describes the current condition of staffing and deployment and contrasts it with future needs. This results in the following short and long term recommendations:

- 1. Improve staffing to meet NFPA standards on a more consistent basis and reduce overtime expenses. Qualified "rovers" should be added to each shift to limit overtime and assist in the deployment of support apparatus.
- 2. Consider alternative response models and additional rescue/ambulance deployment to increase efficiency and address growing service demand.
- 3. Develop plan and timetable for implementation of staffing a four person ALS engine company at station 19 to address Two-in/Two-Out NFPA regulations.
- 4. Develop a plan and timetable for implementation for additional "in-fill" stations to address service demand and response times.
- 5. Continue to fund paramedic training to meet our requirements for EMS service on rescue/ambulances as required by the Arizona Department of Health Services.
- 6. Utilize the adopted vehicle replacement program as outlined in the strategic plan to ensure service levels can be maintained throughout the service area.
- 7. Maintain the utilization of a flexible staffing model to maximize District coverage, while minimizing personnel cost.

These recommendations should be addressed in current and future strategic planning for the District.

#### INTRODUCTION AND PURPOSE

Most people are not informed about the complexities associated with effective medical services and structural fire protection planning. The public usually views the system model as "simplistic" in nature and applies the following assumptions:

- 1. My "emergency" is the only one in progress.
- 2. The fire station is close by and will be on scene "quickly."
- 3. Only one fire "truck" or ambulance will be required.
- 4. There will be adequate "staffing" on that truck to handle the emergency.

As most public fire and medical services professionals know, the above assumptions are incorrect much of the time.

In reality, the planning model is much more complex. Complexity increases with the following:

- 1. Size of population served.
- 2. Size of service area.
- 3. Environmental factors (topography, street system, weather, etc.)
- 4. Diversity of potential risks.
- 5. Number of fire and medical companies deployed.
- 6. Number of fire stations servicing the area.
- 7. Staffing model utilized

The purpose of this analysis is to identify the factors that must be considered in planning for the future needs of the Timber Mesa Fire & Medical District. The District's Governing Board and the staff of the District must have a common "mental model" of the existing system before they can make effective decisions about its future. This analysis attempts to do the following:

- 1. Create a common understanding about basic fire protection and medical services planning issues affecting the District.
- 2. Presents recommendations to the Board to improve upon existing deficiencies.
- 3. Identifies options for the Board in considering the longer term planning issues that will affect the District.

The focus of this analysis is on structural fire protection and medical services. There is relevance to planning for the improvement of services in our Certificate of Necessity (CON) including Emergency Medical Services (EMS), bariatric transport, specialty care transport, convalescent transport, and Community Integrated Paramedicine (CIP). This analysis should serve as the "core" around which operational plans are developed and should complement our other programs (e.g., wildland fire, fire prevention services, and public education).

### BACKGOUND ON STRUCTURAL FIRE PROTECTION PLANNING

#### **Tactical Responsibilities of Fire Companies**

A fire company consists of three or more personnel assigned to an engine or ladder. Because the TMFMD only has one ladder truck, most fire ground operations utilize the engine as the basic platform for providing service. Ladder company operations can be performed by engine companies or when the ladder company responds from its assigned station. Similarly, in the TMFMD, our ladder company is equipped, and routinely required, to perform engine company functions.

Engines and ladders carry a limited supply of water, various amounts and sizes of hose, and are designed with a large capacity fire pump on board. The basic tactical responsibilities of engine and ladder companies at structure fires are to:

#### **ENGINE COMPANIES**

- Lay a large diameter hose line from the closest hydrant to a position of greatest tactical advantage near the fire building.
- Extend a hose line from the engine to a position where exposed and endangered structures can be protected from advancing fire.
- Advance a hose line from the engine into the fire building to prevent extension
  of fire into the uninvolved portions of the building \*\*
- Extinguish the fire with minimal structural and contents damage from fire, smoke and water.
- Search and remove fire victims from the areas of risk. \*\*

#### LADDER COMPANIES

- Force entry into the structure and open concealed spaces.
- Raise portable ground ladders to affect rescue of fire victims on upper floors and gain access to the roof for ventilation.
- Channel super-heated smoke from the interior of the structure to the outside by creating openings in the structure and utilizing existing openings.
- Shut-off utilities to the building.
- Perform salvage operations that minimizes smoke and water damage. Place the structure back into a usable condition if at all possible.

<sup>\*\*</sup> Because of Occupational Health and Safety Administration (OSHA) Regulation-29-CFR-1910.134(g)(4) and National Fire Protection Association (NFPA) Standards-1710, we are required to assemble a minimum of four personnel on the scene before entering the interior of a burning structure. While two firefighters enter the structure for fire attack/rescue, two firefighters must remain outside the structure in position that will allow them to attempt "rescue" of the firefighters inside the structure if they become trapped or overcome.

#### Fire Behavior in Structures

The services of the Fire District are requested when conditions at the scene of an emergency are degrading very quickly. Whether the emergency is a fire, cardiac arrest, vehicle entrapment or similar "emergency in progress," conditions at the scene are rapidly deteriorating. In the case of fire control efforts, it is important to develop an understanding of fire behavior within structures to gain an appreciation of the exponential growth of uncontrolled fire within a structure.

Through scientific testing conducted by the NFPA and the United States Fire Administration (USFA), as well as actual assessment of fire ground conditions, it has been determined that the first (5) five to (8) eight minutes in the early phases of a structure fire correlate directly with factors that influence the chances of survival of building occupants and the extent of fire damage to the structure.

In a routine fire in a building, the combustion process produces heated gases that, in turn, heat adjacent combustible surfaces. As a result of the rapidly developing fire, the temperature within the room rises very quickly to a point when all the combustible contents within a confined area will ignite in a "flash-over" condition.

#### Flash-over defined:

Ordinary combustibles in buildings have an ignition temperature of 400 to 1000 degrees Fahrenheit. As the room contents and surfaces become wall/ceiling heated, simultaneous ignition of all occurs combustible material resulting in flash-over. Within seconds, fire conditions produce super heated gases and fire spreads throughout the structure with dramatic speed.



Once flash-over has taken place, all materials in the original fire area become involved in the combustion process. The amount of heat energy increases, windows fail, thus enabling more oxygen to reach the fire and accelerate the combustion process. Anyone who has not escaped from the room at the point of flashover is unlikely to survive. Even the survival rate of firefighters, wearing full protective clothing and breathing apparatus, is very low due to the hostile environment of the atmosphere during flash-over.

Unfortunately, modern building construction has only made a bad situation worse. Light weight construction components and an increasing use of polycarbonate materials has increased the production of heat (measured n BTU's) which has rapidly accelerated fire growth in modern structures.

#### The Correlation to Emergency Medical Response

Medical emergencies have a similar time requirement. During heart attacks, respiratory distress, and cardiac arrests, it is imperative to intervene quickly and with the proper staffing levels. The heart, the brain, and other vital organs are oxygen dependent and quickly begin to deteriorate and fail without adequate perfusion. The industry standard for a response to a medical emergency is with a minimum of four certified personnel.

When cardiac arrest occurs, biological death and irreversible brain damage begins after four to six minutes. In addition, the success rate of defibrillation of the heart diminishes by 10 percent for each minute after the initiating event that caused the arrhythmia. If emergency medical personnel can be placed on the scene of a medical emergency prior to biological death, mortality rates decline and intervention effectiveness increases. The time period for effective EMS intervention closely correlates to the window we have to intervene before flash-over in a structure fire.

#### **Response Time Model**

In an analysis of fire/medical company deployment and staffing, the importance of time is related to the "exponential development" and propagation of fire within the structure. The tactical objective of the fire department is to provide sufficient firefighting resources on the scene to attack the fire prior to flash-over.

**Exponential Development of Fire Defined:** During the growth phase, a fire in a modern building doubles in size every 30-60 seconds depending on fuel load. Radiated heat from the fire, in turn, heats adjacent combustible materials further intensifying the fire. The violent expansion of the atmosphere in the fire room then forces fire into other uninvolved rooms at a tremendous rate of speed.

Attacking the fire prior to flashover significantly increases the chance of survivability of the occupants, increases the chance of saving the structure, and reduces the risk to firefighters.

There are five critical time periods that must be considered in establishing the ability to attack structure fires in their incipiency prior to flash-over. The five time span periods are:

- A. **DISCOVERY OF FIRE**: The time span that elapses between the inception of the fire, detection of the fire, and time to make initial contact with the Public Safety Answering Point (PSAP).
- B. **ALARM TIME**: The amount of time required to receive the call at the PSAP, determine the appropriate fire company assignments, and to initiate the dispatch of those companies to the scene of the emergency.
- C. **TURNOUT TIME**: The amount of time required for the fire company to receive the dispatch from the PSAP, don the appropriate personal

protective clothing, get on the engine, or ladder, and start in the direction of the incident.

- D. **COMPANY TRAVEL TIME**: The elapsed time span from the moment the company starts moving towards the incident and the arrival time of that company on the scene of the incident.
- E. **SET-UP TIME**: The time span required to actually "set-up" operations where a full scale fire attack has been initiated.

There are no national standards for "Discovery of Fire" time spans. Most public education programs address this issue as do fire code requirements for early detection and alerting (e.g.; smoke detectors, fire alarms, central station reporting etc.). There are no national standards for set-up time. Most fire departments continuously drill upon operations that place the first attack line on the fire in less than three minutes.

The remaining three time spans are usually referred to, in the aggregate, as "Response Time" (please note that this is different than Travel Time/Distance). There are national standards for the other time spans:

ALARM HANDLING: One (1) minute.

TURNOUT TIME: One (1) minute

COMPANY TRAVEL TIME: Three (3) minutes

These standards are based upon National Fire Protection Association (NFPA) standards as well as those set by the Insurance Services Office (ISO).

#### **Strategically Locating Fire and Medical Companies**

When considering that fire companies spend much of their 24-hour shift operating in the fire station, it is evident that station location must become the point of focus in calculating the elapsed time between the company's receipt of alarm and their timely arrival at the fire or medical incident.

To determine the most appropriate station location for companies, several factors must be considered in such an essential strategic planning effort. These factors are:

- A. The level of demand for service. This is usually based upon population density. In some cases unusual hazards and risks will come into play.
- B. The actual "travel time" required to reach various locations within the district from existing as well as potential fire station locations.
- C. Consideration of future growth and development patterns.
- D. Consideration of topographical as well as traffic features.
- E. Acceptable elapsed time for the number of companies/personnel to arrive on the scene and begin fire attack.

#### **National Fire Protection Standard 1710**

In 2001, the NFPA adopted a standard that has had far-reaching impact on this nation's fire service. It is a planning and evaluation standard that specifies many of the concepts discussed so far. Here is a matrix that describes the nuts and bolts of 1710:

#### **NFPA 1710 Response Standards**

First unit travel time: 4 minutes / 90% of the time\* Initial full assignment travel time: 8 minutes / 90% of the time\*

First unit staffing: 4 minimum

Full assignment staffing: 14 (Including the Incident Commander)

First BLS unit travel time: 4 minutes\*
First ALS unit travel time: 8 minutes\*

(\*) includes turnout time of 1 minute

#### Legal Issues

A question of interest on these standards is: Do they apply to the TMFMD? This issue relates to legal implications. We must comply with OSHA regulations. We have a choice to comply or not comply with national standards such as NFPA. The TMFMD

District Board has determined that we will comply with National Standards such as NFPA. compliance would increase our level of legal exposure. In a case of alleged negligence, the "reasonable person" theory will be utilized. Lawyers will ultimately look at the fire service at large to see if there is general agreement on relevant standards for what is reasonable. Undoubtedly, since NFPA is a consensus standard, it will be utilized as a benchmark in determining what is reasonable. For negligence to be established, however, a nexus must be between "damages" associated and noncompliance with the standard(s).



### THE CURRENT CONDITION OF DEPLOYMENT AND STAFFING

#### **Staffing and Apparatus Deployment**

**Station 13 (Lakeside)** is staffed with six personnel (four personnel on an engine and two personnel on a rescue/ambulance). This station is staffed 24 hours a day, 365 days a year. Minimum staffing of five is met by having a daily staff of six firefighters per shift.

**Station 14 (Fawnbrook)** is staffed with six personnel (four personnel on a ladder and two personnel on a rescue). This station is staffed 24 hours a day, 365 days a year. Minimum staffing of five is met by having a daily staff of six firefighters per shift.

**Station 15 (Show Low)** is staffed with seven personnel (four personnel on an engine, two personnel on a rescue and one "rover" position to cover vacancies and deploy support apparatus). This station is staffed 24 hours a day, 365 days a year. Minimum staffing of five is met by having a daily staff of seven firefighters per shift. This station also staffed 24 hours a day, 365 days a year with a Battalion Chief.

**Station 16 (Airport)** is staffed with three personnel (two personnel being operational and one administrative person). This station is staffed 8 hours a day, 5 days per week. Daily staffing is flexible and this station may not always be staffed. When not staffed, the engine company from Station 15 responds as needed for flight coverage.

**Station 17 (Linden)** is staffed with six personnel (four personnel on an engine and two personnel on a rescue). This station is staffed 24 hours a day, 365 days a year. Minimum staffing of five is met by having a daily staff of six firefighters per shift.

**Station 19 (White Mountain Lake)** is staffed with two personnel on a rescue. This station is staffed 24 hours per day, 365 days per year.

The Fire Chief, Assistant Chiefs, Division Chiefs, Battalion Chiefs and Fire Prevention staff are available to perform all line and command functions and do respond to all major incidents or as requested.

Rovers augment staffing in several different ways. Rovers may provide the District with extra staffing during normal shifts. They fill vacancies throughout the Fire District because of scheduled and unscheduled PTO and other forms of leave (military, FMLA, bereavement, etc.). Additionally, they provide increased staffing during realized demand for service and improve our ability to deploy support apparatus (scene support truck, brush trucks, tenders, boats, etc.). Increasing our pool of rovers on each shift should be a priority for the Fire District for all the reasons outlined above.

All off-duty, full-time, staff members are subject to recall if a significant incident occurs.

#### TRAVEL DISTANCES AND TIMES

The average national travel time/distance model (based on actual models ran in five urban/suburban cities) indicates that an engine company normally travels at a speed of 30 miles an hour. This includes starting, slowing, stopping, reaccelerating, etc. throughout the distance traveled to the call. Communities typically assign a travel distance of 1.5 miles to the first due engines within their response area. The travel speed of 30 mph means and engine can travel 1.5 miles in the allocated travel time standard of three (3) minutes.

Travel speeds may be significantly less within the District when compared to the national average due to topography, street width, unimproved roads, weather, and congested travel routes.

The NFPA standard of four minutes - 90% of the time has implications not only for firefighting, but for EMS response. EMS response times are mandated by the State of Arizona Department of Health Services (AzDHS) and are outlined in our CON document. These documents and response time requirements should be used for all future planning.

Travel distance and time is a critical issue and is relevant to NFPA 1710 and our ability to perform interior fire attack. Interior fire attack cannot begin until a minimum of four personnel are assembled at the incident. This means that our staffing level of four firefighters on engine companies must be maintained in order for effective fire attack to be performed.

#### **Travel Times Between Response Areas:**

Station 13 to Station 14 Eight (8) Minutes

(Lakeside Station to Fawnbrook Station) 4.6 Miles

Station 14 to Station 15 Seven (7) Minutes

(Fawnbrook Station to Show Low Station) 3.8 Miles

Station 15 to Station 17 Ten (10) Minutes

(Show Low Station to Linden Station) 6.8 Miles

Station 15 to Station 19 Eighteen (18) Minutes

(Show Low Station to White Mtn. Lake Station) 13.2 Miles

Station 17 to Station 19 Twenty One (21) Minutes

(Linden Station to White Mtn. Lake Station) 14 miles

Timber Mesa Fire and Medical District's average response time to all emergency calls for service in calendar year 2020 was six (6) minutes and 32 seconds. For medical calls, the average response time was six (6) minutes and 33 seconds, and we responded to 90% of all medical calls in nine (9) minutes and 04 seconds or less.

#### FIRE STATION LOCATIONS

The District currently has five (5) staffed fire stations and two (2) un-staffed stations. These stations can be utilized in a strategic plan to improve response times and service. The current stations locations and utilization are evaluated as follows:

**Station 13 (Lakeside Station)** – Current service levels and response history indicates that station 13's location and staffing is adequate for the station's service area. However, due to station 13 being the only full-time staffed station in this response area, the overall response times are below the national standards. This station also serves as the primary response for other service areas within the District.

**Station 14 (Fawnbrook Station)** – Current service levels and response history indicates that station 14's location and staffing is adequate for the stations service area. However, due to station 14 housing the only ladder truck in the District, the overall response times for a ladder are below the national standards due to the fact that this ladder company serves as the primary response for the entire District and to our automatic-aid partners.

**Station 15 (Show Low Station)** – Current service levels and response history indicates that station 15's location and staffing is not adequate for the stations service area. Increasing service demand and the geographical location of this station have both impacted the quality and timeliness of service delivery downtown Show Low.

**Station 16 (Airport Station)** – Current service levels and response history indicates that station 16's location and staffing is adequate for the stations service to the airport. However, due to station 16 not being a 24 hour staffed station, Engine 15 responds to cover flights and incidents. The overall response times meet the national standards required by the Federal Aviation Administration.

**Station 17 (Linden Station)** – Current service levels and response history indicates that station 17's location and staffing is adequate for the stations service area. Due to station 17 being the only full-time staffed station in this response area, the overall response times are below the national standards. This station also serves as the primary response for other service areas within the District.

**Station 19 (White Mountain Lake Station)** – Current service levels and response history indicates that station 19's location is not ideal, and the staffing level is wholly inadequate. Two personnel are assigned to this station primarily of EMS response. While they have some firefighting capabilities, the primary responsibility of the 19 crew is to establish command and set up the scene while awaiting the rest of the first alarm (18 minutes). Due to Station 19 being the only full-time staffed station in this response area, the overall response times are below the national standards.

**Station 37 (Porter Mountain Station) –** This station was built in 2008 to serve the Porter Mountain area. The station has no full-time staffing. The stations service area is still served by station 13 and response times are in excess of 12-20 minutes. The

station's remote location limits its utilization without full-time staffing. However, current calls for service and revenue limitations do not support full-time staffing.

**Station 39 (Burton Station)** – Currently this station is not being utilized and there is no response from this station. This site is only useful to the District for storage and limited water supply from a fire hydrant on location.

Automatic Aid agreements have enhanced our ability to serve the community in Station 13's service area (Lakeside); however, these agreements are currently having little effect on the other station's service areas for initial response.

It does not appear to be financially feasible to staff and deploy resources at the urban and suburban levels as recommended in NFPA 1710. This would require the district to staff fire stations at six personnel each throughout the District with travel distances of 1.5 miles or less. To do so, would require the district to raise its annual operating budget to a level that could not be supported by normal revenue collection methods. This does not take into account the need to raise additional capital for apparatus and fire stations.

#### **Administration and Support Services**

Fire districts are very different from municipal "fire departments". Unlike a municipal department, who has the full resources of the city or town at its disposal, fire districts must account for all the management needs of the service delivery system. This includes administrative services such as clerical staff, human resources, payroll, billing, grants administration, public information, financial reporting, etc.

Additionally, there are significant support functions that must be provided in a fire district. These include management of supply ordering, facilities maintenance, apparatus maintenance, purchasing processes, information technologies, communications infrastructure and equipment, and distribution of supplies and materials to a geographically disbursed organization.

Fire districts do not manage themselves. It takes an entire team to provide for the administration and support needed so that firefighters can deliver services to the residents within a fire district. Fire district management requires highly educated, well trained, and experienced managers to oversee the business processes in an increasingly complex regulatory system, under intense scrutiny, and with extraordinary fiduciary responsibility for taxpayer resources.

While there are not necessarily standards that guide the number or type of resources required to effectively manage a fire district, it is sufficient to say that the need for appropriate management in a fire district grows correspondingly with the organizational complexity, the service demand, and the number of personnel deployed. The Fire District must continue plan to keep up with this need.

#### **CURRENT AND FUTURE RECOMMENDATIONS**

#### **Staffing**

The recommendation for the Timber Mesa Fire & Medical District is to use the national model for deployment for all staffing levels and future planning. This will enhance service delivery and firefighter safety.

Four person staffing on all engine and ladder companies would be required to meet this national deployment model. The configuration of this staffing element would ultimately be one (1) captain, one (1) engineer and two (2) firefighters on each engine or ladder company with at least one person being a certified paramedic. This staffing model allows the first due engine to initiate structural fire attack/primary search and to provide advanced level emergency medical care.

Future planning should include increasing full-time staffing for Station 19. Current calls for service and station location supports a phased in approach to achieving this increase. This would involve not only financial commitment for personnel, but facility improvements to house full-time staff. Future planning should address staffing at Station 19.

Strategic planning needs to address utilization of a full-time staffed ladder company at Station 14. There is a need to develop a highly trained and prepared ladder company to service the entire District. This will require a commitment of resources and money to train our crews to current standards for truck company operations.

Arizona Department of Health Service already requires two (2) EMS trained personnel on all transport rescue ambulances. Any additional rescue/ambulance staffing must meet this requirement. Advanced Life Support (ALS) service levels require a minimum staffing of one (1) Certified Emergency Paramedic.

Alternative response for medical services, and ambulance staffing offer many advantages to the District and its residents. Our future planning should include the types of medical services we provide (community integrated paramedics, bariatric services, specialty care ground transports and in-home wellness visits), as well as the way we respond to these incidents. As these services develop, the District will be required to increase ambulance staffing which enhances our service to the community but also provides more rapid response for structure fires and other large-scale incidents.

To maintain staffing of four personnel on all fire companies, and two personnel on all rescue companies, while minimizing overtime and thus the effect of staffing on the taxpayer, the District should evaluate the need for and implement additional rover positions on each shift. Rovers are firefighters who are essentially unassigned, but can be used to move to different locations in the District to maintain staffing levels without creating a need for overtime. They can also be used to staff other response vehicles or to accomplish a variety of other tasks in the District.

#### **Automatic Aid and Dispatch Services**

Automatic Aid and dispatch agreements have enhanced service within the District and helped meet expected service levels. These agreements should be continued and enhanced to provide better service to the community. Participation in regional concepts for service and communications should be explored to enhance service and reduce costs. Additionally, it is incumbent on the Fire District to analyze response data, review and reinforce dispatch protocols, and adjust the service delivery model as necessary to ensure appropriate utilization of emergency resources.

#### **Apparatus and Vehicles**

Apparatus replacement is an important part of the deployment model. The current Strategic Plan addresses goals for apparatus utilization and replacement. NFPA 1901 limits apparatus life to 20 years due to maintenance issues and safety concerns. The strategic plan should continue to address apparatus needs to meet the deployment model and capital improvement budgets should be implemented to meet these goals.

#### SUMMARY OF RECOMMENDATIONS

- 1. Improve staffing to meet NFPA standards on a more consistent basis and reduce overtime expenses. Qualified "rovers" should be added to each shift to limit overtime and assist in the deployment of support apparatus.
- 2. Consider alternative response models and additional rescue/ambulance deployment to increase efficiency and address growing service demand.
- 3. Develop plan and timetable for implementation of staffing a four person ALS engine company at station 19 to address Two-in/Two-Out NFPA regulations.
- 4. Develop a plan and timetable for implementation for additional "in-fill" stations to address service demand and response times.
- 5. Continue to fund paramedic training to meet our requirements for EMS service on rescue/ambulances as required by the Arizona Department of Health Services.
- 6. Utilize the adopted vehicle replacement program as outlined in the strategic plan to ensure service levels can be maintained throughout the service area.
- 7. Maintain the utilization of a flexible staffing model to maximize District coverage, while minimizing personnel cost.

