

SOUTH LAKE TAHOE



FIRE RESCUE

STRATEGIC PLAN

2017-2022

"We will reflect the National Treasure in which we live"

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Executive Summary

South Lake Tahoe Fire Rescue (SLTFR) provides services to the City of South Lake Tahoe serving a population of over 22,000 full time residents. This population number is quite deceiving since Lake Tahoe is a very popular tourist destination. We attract visitors in all four seasons and this often quadruples our population. The organization is responsible for the fire and life safety system within the City. The County of El Dorado is responsible for Ambulance transportation within the County as a whole.

South Lake Tahoe Fire Rescue initiated its strategic planning process to set goals and priorities for its future. This document compliments the fire departments "Business Plan". Through the strategic planning process, the department has been able to assess the organization, its current capabilities and then create a blueprint for the future. The strategic plan defines current and future needs and recommends goals and strategies to meet those needs during the next five years.

A collaborative process was used to create this strategic plan. A variety of department members provided input into the document including the department's annual SWOT (Strengths, Weakness, Opportunities and Threats) planning meeting.

SLTFR strategic plan contains the following elements:

- Mission Statement
- Guiding Principles
- Department Budget
- Department Statistics
- Department Facilities
- Longevity Analysis
- Current Organizational Capabilities
- General Trends within the Fire Service
- Strategic Goals/Strategies for goals
- Appendix- Business Plan

SLTFR Five Strategic Goals:

Goal: *South Lake Tahoe Fire Rescue seeks to improve and invest in current technology that will provide a higher level of reliability for our emergency response capabilities, and serves our community in a consistent manner*

Goal: *South Lake Tahoe Fire Rescue seeks to improve our mutual aid capabilities with the South Shore Fire Agencies, which would benefit all jurisdictions on the South Shore in a cost effective manner.*

Goal: *South Lake Tahoe Fire Rescue seeks to develop and present “A Standards of Cover Document” for City Council approval that would determine the acceptable risk within the City of South Lake Tahoe for fire, disaster and medical emergencies.*

Goal: *South Lake Tahoe Fire Rescue wishes to increase the level of professionalism and safety through training within all ranks of the fire department to improve our service to the community.*

Goal: *South Lake Tahoe Fire Rescue to have well maintained facilities and equipment that enable personnel to perform their jobs safely and efficiently*

Department Mission

Our mission statement describes the purpose of the organization’s existence. It defines the principles and objectives of the organization and is used to prioritize the services provided. It states what the organization stands for and the reason for its existence. The department revised its mission statement during the first SWOT analysis in 2014. The mission statement is:

Serving our community with compassion, professionalism, and honor

Guiding Principles

To achieve this mission statement we have developed guiding principles. The guiding principles for South Lake Tahoe Fire Rescue are:

- We are committed to the protection of life, property, and the environment at South Lake Tahoe.
- We believe in the community, the pristine Lake, and the citizens and visitors are the reason for our existence.
- We will foster and sustain the trust of the community, and will consistently protect that confidence through our professionalism, competence, attitude, conduct, and actions.
- We will serve our community with honesty, fairness, and integrity.
- We will pursue safe, effective, timely, caring, standardized, and economic solutions to our residents and visitors emergencies.
- We will provide professional, skilled, and courteous customer service at all times.
- We will respectfully serve the needs of our community.

Department Overview

The City of South Lake Tahoe was incorporated in 1965. That was done by combining several small communities including Al Tahoe, Bijou, Bijou Park, Stateline, Tahoe Valley, and Tallac Village. The fire department was formed in 1966 by the City. Currently the City's approximately 22,000 residents reside in an area of approximately 16.6 square miles. We are located at 6237 feet above sea level. The City is the 300th largest community within California and the most populous City in El Dorado County and the Sierra Nevadas.

The population density of South Lake Tahoe is 1289.1 people per square mile. 20.6% of the population is under the age 18, 11.6% are between 18 and 24 years old, 30% were 25 to 44, 28.1% were between 45 and 64 and 9.8% were over 65 years of age. The median age was 35.6. There are 15,087 housing units. 38.9% were owner occupied and 61.1% were occupied by renters.

The fire department provides all risk emergency and nonemergency services including fire suppression, emergency medical services, public education and limited fire prevention. Today the department maintains three fire stations, two of which are staffed. In 2014 the department went through a reorganization that relocated the 2 personnel assigned to fire station 2. The Captain of the cross staffed engine and truck was assigned as a Shift Commander to the battalion vehicle; the Engineer was assigned to a 1 person squad. The Shift Commander role was later eliminated and Battalion Chiefs took their place.

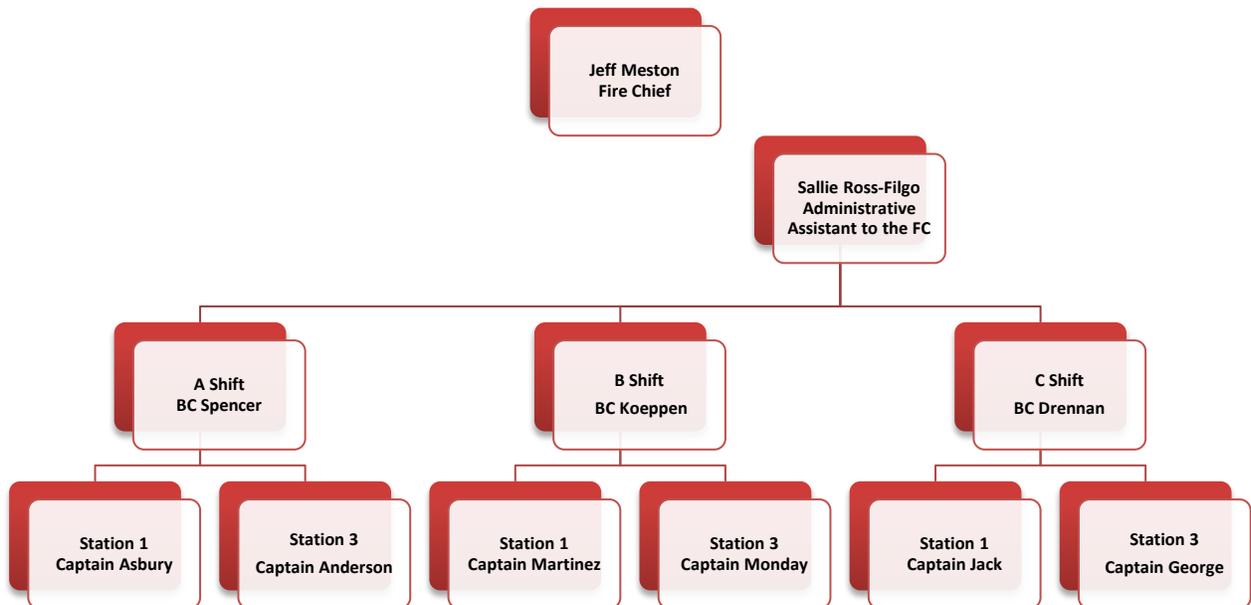
Station 1 has a complement of one 3 person paramedic engine company staffed with a Captain, Engineer and Firefighter/Paramedic. We also have 1 Battalion Chief that responds from Station 1.

Station 3 has a complement of one 3 person paramedic engine company staffed with a Captain, Engineer and Firefighter/Paramedic. Station 3 also has a Squad staffed with one Engineer. Total on duty staffing is 8 per day.

The City also cross staffs 2 wildland fire engines, ICS Type 3 at each station in addition to having an unstaffed truck company and one reserve engine.

South Lake Tahoe Fire Rescue personnel and equipment respond to over 3200 emergency calls each year.

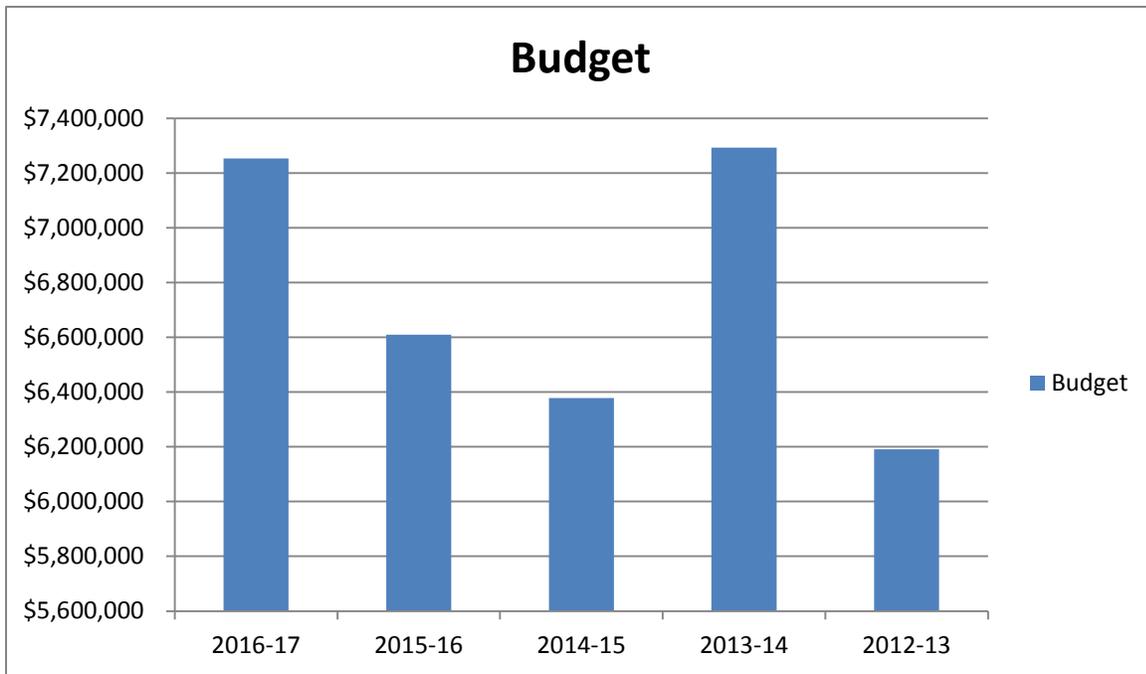
South Lake Tahoe Fire Rescue 2017



In 2017 the City staffs 2 three person engine companies, 1 one person squad and 1 Battalion Chief. Each Paramedic engine has a Captain, Engineer and Firefighter/Paramedic. It is not unusual for a Captain or Engineer to be a paramedic as well. Four of our six captains are certified paramedics, and five of our nine engineers are paramedics and all nine of our firefighters are paramedics.

Fire Department Budget, Total Expenditures Five Years

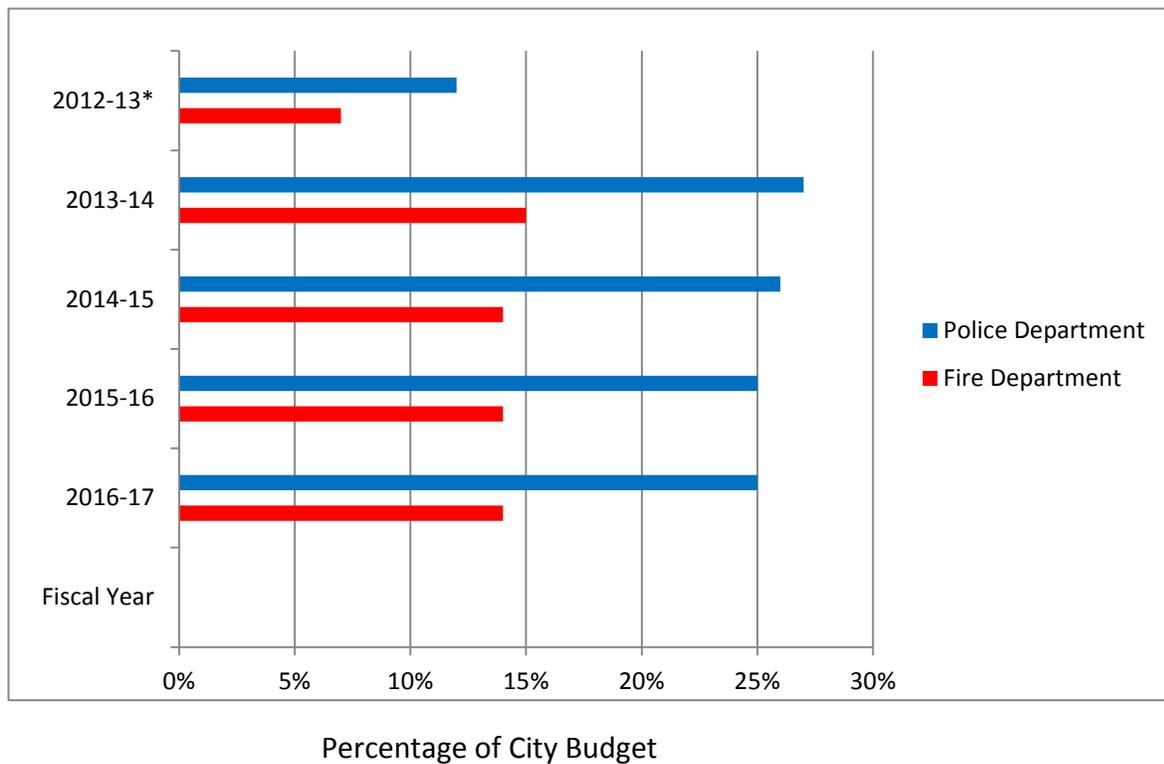
2016-17	\$7,253,489
2015-16	\$6,609,165
2014-15	\$6,377,548
2013-14	\$7,292,347
2012-13	\$6,190,821



Public Safety Allocation Percentage of City General Fund Budget

Fiscal Year	Fire Department	Police Department
2016-17	14%	25%
2015-16	14%	25%
2014-15	14%	26%
2013-14	15%	27%
2012-13*	7%	12%

*(change in distribution calculation)



SLTFR Calls for service- 5 years

Years	Calls	Fire Loss
2016	3,239*	\$4,475,500
2015	3,452	\$648,995
2014	3,253	\$3,571,445
2013	3,275	\$401,790
2012	3,025	\$964,000

In 2016 SLTFR was no longer providing ambulance transportation including inter-facility transfers which led to the decrease of emergency incidents. This illustrates the drop of call volume from 2016 compared to 2015. This is the differential for the Inter-Facility Transfers (IFT) that took City firefighting resources out of the City and transported throughout California and Nevada.

Fire Department Facilities

The City of South Lake Tahoe Fire Department was established in 1966, one year after the City incorporated in 1965. The City acquired 3 fire stations from Lake Valley Fire Protection District during that transitional time. Two of the three buildings still exist with a variety of remodels that have occurred since they were originally built. Below is a summary of each fire station owned by the City.

Fire Station 1- located at 1252 Ski Run Boulevard. This Station was constructed in 1994 and was the first station built by the City. This station is 5,216 square feet, with masonry construction and a non-combustible roof assembly. This is a fully fire sprinklered building. Its current replacement value (2014) is \$2,272,789. This station houses a Battalion Chief, 3 person engine company (Captain, Engineer, Firefighter/paramedic) and has room for a Type 1 engine, Type 3 engine and Battalion Vehicle. This station is located on a very small lot, and has no potential for making the station larger.

Fire Station 2- located at 2951 Lake Tahoe Boulevard. This Station was constructed in 1960 and was a Lake Valley FPD station. This station is 3,234 square feet, with masonry construction and a wood framed roof assembly. Its current replacement value (2014) is \$1,130,511. This station is currently unoccupied by the fire department, but is used by the California Tahoe Joint Powers Authority to operate 3 ambulances for the Authority. When this station was staffed by the fire department it would house one ladder truck and one type 1 engine. This station is outdated but in a good central location of the City. This station was partially remodeled in 2014 to accommodate our current ladder truck.

Fire Station 3- located at 2101 Lake Tahoe Boulevard. This station was constructed in 1957 and was a Lake Valley FPD station, this station is 5,000 square feet, with wood frame construction and a wood framed roof assembly. Its current replacement value (2014) is \$1,746,823. This station currently houses the administrative offices of the fire department (Fire Chief and Administrative Assistant to the Fire Chief) as well as a 3 person engine company (Captain, Engineer, Firefighter/Paramedic) and a 1 person squad. This station also houses the Self Contained Breathing Apparatus compressor (fixed) and the mobile SCBA trailer. A Type 3 engine is also housed at this fire station. There is a small gym in an auxiliary building directly behind the station. This building has been remodeled on several occasions and has used the space owned by the city. The City has an agreement with the neighboring Church of Christian Science to use their parking lot for employee parking. This station does not have the capacity to be expanded.

Fire Station 4- this location is at the City of South Lake Tahoe Airport, and is just a hanger that houses reserve fire apparatus, reserve police apparatus and equipment and the college's fire science program. We do not staff nor consider this a functioning fire station.

Training classroom- located at 1100 Lyons Avenue, Trailer A-4. This is a double wide portable classroom that we rent from the Lake Tahoe Unified School District for \$500 a month, plus an additional \$800 a year for a security alarm system and portable potty. This has become a critical facility for the organization that spends a minimum of 2 hours daily training; this location is also centrally located for emergency response. The school district does have plans to re-occupy the facility which would force the fire department to seek another location.

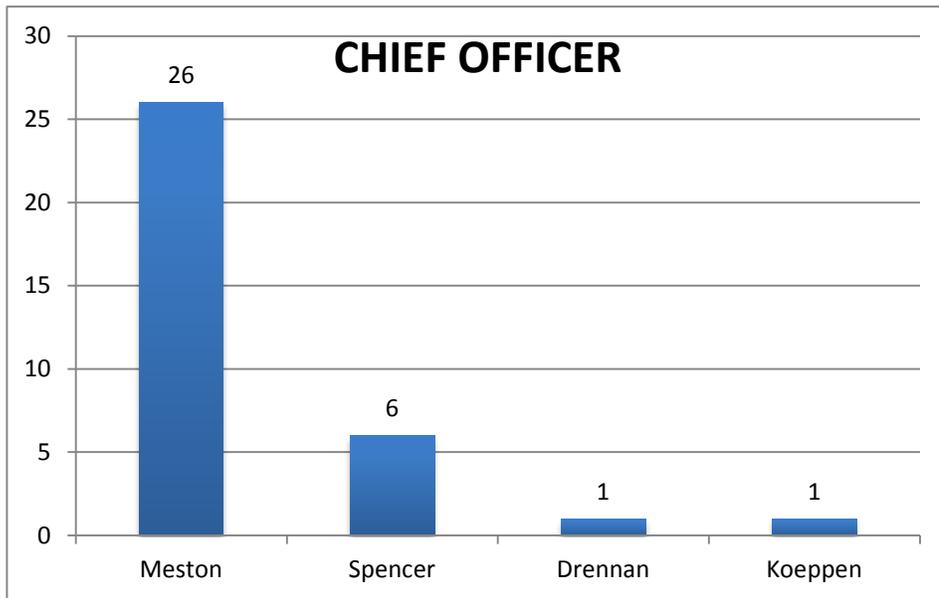
Longevity within Fire Department

Each promotional step within the fire department involves pre-designated training and education as outlined and memorialized in the negotiated Career Development Guide that was negotiated by Labor and Management. It is generally recognized within fire agencies, that each promoted position takes approximately 5 years of experience before you reach the "journeyman" level of expertise. To address this issue the Fire Department has designated that training is the third highest daily priority within the fire and life safety system. We have implemented academies for each promoted position including a one week Engineers academy, two week Captains academy and a four week Battalion Chief academy.

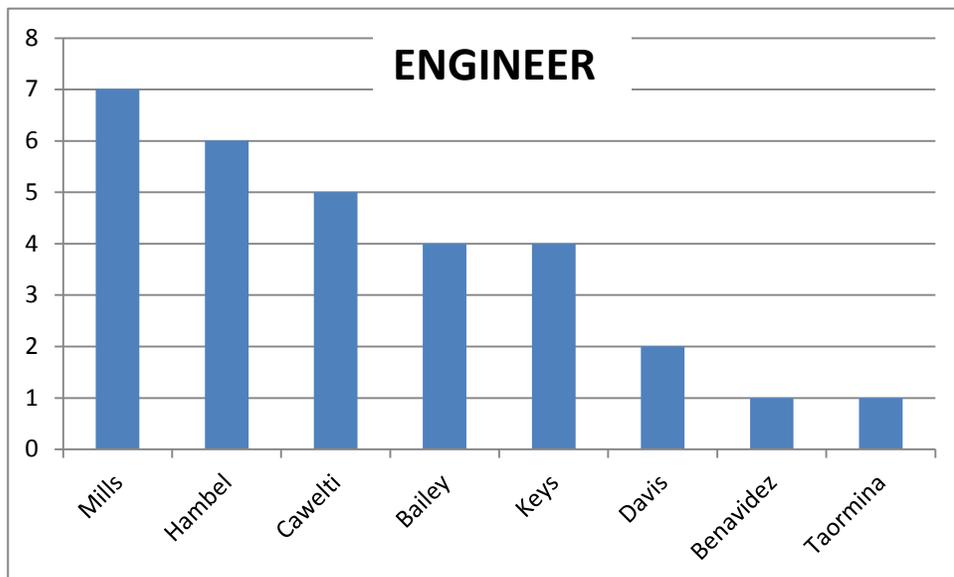
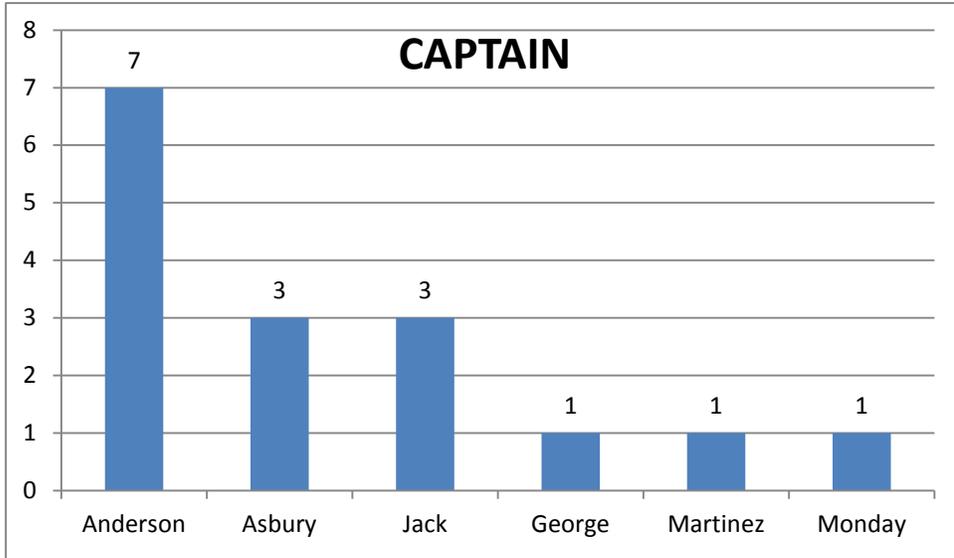
Entry level personnel must have completed a firefighter 1 academy that is a minimum of 400 hours which generally is delivered at a community college or regional fire academy. We also require that all new employees have completed and are certified as a State of California Paramedic. Once hired the organization will then develop a task book to ensure that the new candidate can safely be placed on an engine company to perform tasks. The time needed to complete the task book would vary based upon the training and experience of the candidate, the training and orientation period would be no less than 80 hours and could go up to 240 initial hours.

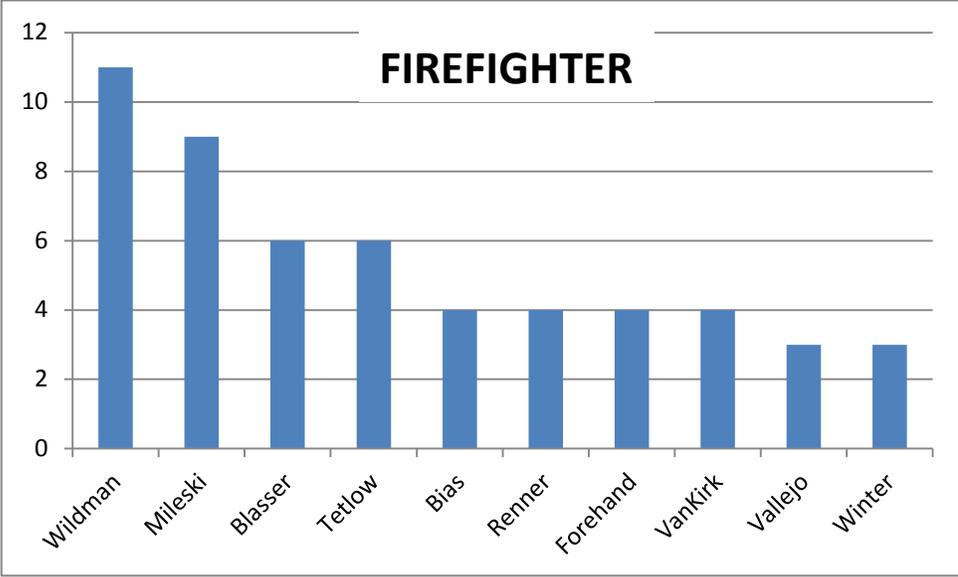
The following charts are a snapshot of where the organization is in 2017, per rank, per individual. The goal is to provide superior training during the internship of each candidate for a five year period in each rank.

Cumulative Chief Officer Service by Individual



Years of Service Captains, Engineers and Firefighter Paramedics





City of South Lake Tahoe Fire Rescue 2017 Capabilities

Firefighting

Structural firefighting

SLTFR should be completely capable of attacking a room and content fire in a residential structure fire that is approximately 1500 square feet implementing interior attack strategies. Utilizing first alarm assignments and an additional engine from a mutual aid company we should be able to accomplish a “serial” firefighting operation to include establishment of water supply, size up by the first due company officer, fire attack with a 1 ¾ inch hand line, 2-out/RIC (accomplished by mutual aid company) search and rescue, controlling the utilities, ladder placement up to a 24’ ground ladder and horizontal or positive pressure ventilation.

SLTFR should also have a capacity to put into place an exterior fire attack which would include establishment of a water supply and placing a 2 ½ exposure or fire protection line or a master stream. This defensive strategy is based upon delivery of water to a structure that will become a total loss, with a priority of protection of exposures, both structural and wildland.

SLTFR should also have the capacity to support water supply for a working sprinklered building fire, determine the cause of the fire alarm and conduct mop up operations on the successful deployment of automatic fire sprinklers.

SLTFR does not have the capacity to successfully mitigate structural fires in buildings greater than 1500 square feet not protected by automatic fire suppression systems. This would include mini-mansions, strip malls, motel or hotels nor structures that are multi-level without current fire code approved built in fire protection.

SLTFR should have great flexibility with two 3 person staffed engine companies for the delivery of water to the scene of an incident. SLTFR does not currently have a staffed ladder truck company, so currently we must rely on mutual aid to address laddering buildings over 18 feet, specialized search and rescue, vertical ventilation, elevated master stream devices, salvage and overhaul responsibilities. Due to the need for a mutual aid ladder company there will be a substantial delay in arrival times for any ladder company. Ladder company response is a standard first alarm response in most fire organizations.

Vehicle Fires

SLTFR is well equipped to attack automobile and small truck or van fires. If we encounter a semi-trailer or bus fire we complicate the issue with the need for more water, foam and hazardous material considerations. The current water supply within the City would dictate a need for both engines to respond to larger vehicles and the need for hazardous material to contain and control runoff.

Wildland Firefighting

SLTFR is well positioned to attack small (less than 1 acre) wildland fires in their incipient state of fire behavior. If we encounter a scenario where the wildland fire is threatening structures we must rely heavily on mutual aid which would include aircraft, multiple engines, hand crews, bulldozers and well developed overhead management of the ICS system. Currently we respond one Type 1 engine for structural protection and one Type 3 engine for fire attack.

Aircraft Firefighting

SLTFR should be able to respond to a downed aircraft at our airport and apply foam off a Type 1 engine. Due to the length of response any initial firefighting or rescue procedures would likely be too late. Crews should be able to extinguish the fire and preserve the scene for the FAA.

Hazardous Material

Hazardous material response

Currently SLTFR has the capabilities as a first responder to implement first responder operations (FRO) skills to an event, which may include isolation, identification and denying entry. SLTFR will unify command with the law enforcement agency having traffic responsibility and can do gross decontamination. El Dorado County has hazardous material responsibility within the City and SLTFR will support that mission.

Rescue

Public Service Calls

Currently SLTFR will commit one engine company with its Captain to help resolve public service issues with the reporting caller. We may take direct action or serve as a resource to assist the citizen with resolution of their problem.

Basic Rescue

Currently SLTFR should be able to perform basic rescue techniques specific to the equipment used on apparatus. Auto extrication should be our number 1 task utilizing equipment carried on the engines and squad. Rope rescue should focus on a basic 3 to 1 raising system. Firefighters should be capable of rescuing another firefighter with a RIC team and equipment, including training on the Denver prop.

Water Rescue

Currently SLTFR should be able to assemble an on duty team to get the police boat out to a scene of an emergency and provide paramedic care. We currently do not have any capability for diving, prolonged searches or sophisticated water rescue scenarios because we lack a fire rescue boat.

Ice Rescue

Currently SLTFR personnel should be able to assemble with its dry suits and the specialized rescue board to get out to a single patient on the ice and effect rescue. This would be a prolonged effort that could take up to 30 minutes to assemble the crew and safely deploy the rescue board.

Vehicle Extrication

Currently SLTFR has the capability, tools and equipment and training to extricate a patient from a car and light truck. Extrication difficulties would arise if this were to involve a commercial truck or a bus. We currently have the tools and equipment but would lack adequate firefighting resources without invoking mutual aid.

Emergency Medical Service

EMS from an engine company

Currently SLTFR is able to provide an excellent advanced life support (ALS) medical intervention from an engine company; this should include basic ALS skills with the anticipation of a patient being transported by a California Tahoe Joint Powers Authority ambulance or other fire based ambulance.

Hostile MCI

We should be able to support a minor rescue operation for a hostile MCI event. This would include establishment of the Incident Command System and the use of START Triage. (Simple Triage and Rapid Treatment.) We may be able to support entering buildings with our Police Department if any of the 3 SWAT tactical paramedics are on duty.

Public Education

Public Education

Currently SLTFR should have the capacity to support several events including Fire Station Open Houses, STAT, a School program, coordinating The Wildfire Safety Expo, as well as participating in Firefest. We should also have the capacity to present Citizen CPR once per quarter utilizing overtime for instruction and support very small events like local safety days, Halloween, Boy and Girl Scout events. The Fire Station Open House and STAT provide the organization the biggest bang for its buck for community support and education.

Fire Investigation

Fire Investigation

Currently we should be able to investigate a basic cause and origin for a fire at the Company level, each Captain has taken fire investigation 1a as part of their fire officer certification. A joint fire/police investigation team should be explored for the more complicated fire investigations.

General Trends Affecting the United States Fire Service

Significant changes have occurred over the past 25 years that impact the fire service.

Improvements to building codes. Significant improvements have been made to building codes in the state of California and in specific municipalities that include enhanced fire protection requirements.

Increased medical emergencies. Medical emergencies have increased over the years and will continue to do so in the future because of two important factors:

- **Aging population.** As the baby boomer generation ages, their need for emergency medical care and medical services increases, which increases EMS calls in a community.
- **Increased cost of medical insurance.** As the cost of medical insurance continues to rise and fewer preventative services are offered, individuals do not have access to or cannot afford many preventative medical treatments. Thus, individuals wait longer to seek treatment, resulting in the need for emergency medical services, which increase the EMS calls in the community.

Legislative and regulatory changes. Increase training requirements have impacted the fire service and will continue to do so. New mandates to enhance training programs to meet the needs of the population as well as increased training requirements will add to the fiscal challenge of funding these programs.

Technology. Technological innovations have resulted in enhanced equipment and service delivery in the fire service over the years. As technology continues to advance, there will be a desire to continue to purchase the latest innovation to improve service. However, this will have to be balanced with the fiscal constraints in the enhanced service that the particular innovation will provide.

Climate. California has experienced an increase in wildfires during the last several years. These fires burned thousands of acres across the state and destroyed numerous structures as well. The increase in wild fire is a result of warmer temperatures coupled with the dry fuel and a drought. It is likely that these factors could be in place for the next several years, which will undoubtedly put a burden on the fire protection services. This is especially true when multiple wildfires take place in the same time, taxing the available resources. CalFire and the United States Forest Service has identified more than 12 million pine trees that have been killed by bark beetles adding to the hazardous fuel conditions throughout California.

Water. Droughts not only dry out the vegetation, they also impact the water supply needed to put out the fires. The severe drought condition makes fires more dangerous and more difficult for fire agencies to protect life and property.

PLANNING PROCESS

In 2017, after completing 3 years of SWOT (Strengths, Weakness, Opportunity and Threats) analysis the organization began the strategic planning process. This plan, coupled with an annually updated business plan and the development of a Standards of Cover document, will lay the foundation for the organization to move into the future in a planned and organized manner.

A systematic strategic planning process was used to evaluate the organization's strengths and weaknesses, identify external influences and opportunities, and establish priorities that will help foster a productive future. Using an environmental scan and considering data likely to affect the department in the future, the list of priorities were developed which were used to formulate the goals and strategies for the future.

In developing the strategic plan, the department considered a broad range of concerns that could potentially impact the operation of the organization, including:

- Problems or issues that arise on a daily basis that need long range attention
- Budget objectives and limitations
- Data and trends
- Fire service best practices
- Regional issues

Goals and strategies for the future

For this strategic plan, the terms “goals” and “strategies “are used. Both terms are described below.

- Goals are multi-year in nature and set the framework for policies and decisions.
- Strategies are the means to achieve the goals. They are projects and plans to achieve the goals.
- Strategies are measurable and are the specific projects for which the organization is accountable.
- Strategies provide a way for progress to be tracked. A set of strategies has been created for each of the goals.

Goal: *South Lake Tahoe Fire Rescue seeks to improve and invest in current technology that will provide a higher level of reliability for our emergency response capabilities, and serves our community in a consistent manner.*

Strategies:

Work with the police department to determine how to improve our existing radio system. This would include repeaters, portable radios, computer aided dispatch, tablets for fire apparatus, Mayday tones, station base radios, and alerting systems.(2022)

Develop a robust records management system that would provide useful data in the development of “A Standards of Cover Document”. This would include GIS, geographic information systems.(2018)

Develop a comprehensive plan for the City Manager and City Council to approve which would bring both the Police Department and Fire Department into the 21st century with communications and technology.(2019)

Goal: *South Lake Tahoe Fire Rescue seeks to improve our mutual aid capabilities with the South Shore Fire Agencies, which would benefit all jurisdictions on the South Shore in a cost effective manner.*

Strategy:

- Develop joint training with neighboring agencies (2017)
- Work with Tahoe Douglas on high-rise firefighting plans (2017-2018)
- Standardize equipment whenever possible (2019)
- Refine resources sent to emergency incidents (2020)

Goal: *South Lake Tahoe Fire Rescue seeks to develop and present “A Standards of Cover Document” for City Council approval that would determine the acceptable risk within the City of South Lake Tahoe for fire, disaster and medical emergencies.*

Strategy:

- Continue to work with city GIS to determine demographics of the community (ongoing)
- Document significant emergencies and compare those to the Standards of Cover Document (2018)
- Review five years of statistical data as a baseline for the provision of fire and EMS response (2018)
- Catalog every commercial/business structure over 1500 ft.² to determine fire flow and firefighting capability (2017)
- Incorporate response data into a usable format for emergency response (2020)
- Regain Fire Station Two, to house ladder truck two. Determine staffing alternatives for the ladder truck (2019)

Goal: *South Lake Tahoe Fire Rescue wishes to increase the level of professionalism and safety through training within all ranks of the fire department to improve our service to the community.*

Strategy:

Complete and continue academies for all ranks of the department as needed (ongoing)

Adopt and implement the National Institute of Science and Technology (NIST) scientific firefighting techniques (2019)

Adopt and implement the Blue Card Incident Command System for structural firefighting (2018)

Continue bringing in outside instructors to raise the level of proficiency amongst members (ongoing)

Goal: *South Lake Tahoe Fire Rescue to have well maintained facilities and equipment that enable personnel to perform their jobs safely and efficiently.*

Strategy:

Replace and maintain vehicles (ongoing)

Maintain and update equipment (2022)

Maintain fire stations(ongoing)

Modify fire stations to comply with current safety mandates (2022)

Address City water rescue capabilities (2018)



Business Plan 2017

"We will reflect the National Treasure in which we live"

Fire Departments depend on equipment and personnel to accomplish their tasks. Those tasks vary from each agency but the City of South Lake Tahoe Fire Department has determined that at a minimum the agency should respond to the following types of incidents within the City limits. They include response to any type of fire, which would include structure fires, wildland fires, vehicle fires, natural gas and flammable liquid fires. The agency also responds as a first responder advanced life support to all medical emergencies within the City. A vast majority of miscellaneous calls are dispatched from our joint Police/Fire/Medical dispatch agency which general include all emergencies, perceived or legitimate that are not police emergencies. (help back into bed, smell of smoke, general public assistance).

The basic tool within the fire department is a Type 1 engine or structural engine. In the City that unit is staffed with three personnel (Captain, Engineer and Firefighter/Paramedic). The City has two daily staffed engines responding out of Fire Station 1 located on Ski Run Boulevard and Fire Station 3 on Lake Tahoe Boulevard, near the "Y". In addition to those two engines we have a one person squad staffed with an engineer and a one person Battalion Chief vehicle.

Engine crews also cross staff a Type 3 wildland engine during the summer months. That engine is smaller and was designed to fight grass and brush fires within City limits. If a Type 1 engine crew staffs the Type 3 engine, the Type 1 engine remains unstaffed during that response.

The squad serves as a smaller version of the ladder truck carrying specific tools which include auto extrication equipment, specialized rescue gear including ice and water rescue, ropes, salvage equipment and a compliment of saws and tools. The ladder truck is currently not staffed and would require 3 personnel to operate it safely. The ladder truck is currently stored at Fire Station 4 at the airport and would be used for major incidents where off duty personnel would be called back into the City to staff that unit.

This business plan looks at the capital expenditure items that cost significant amounts of money. The cost models for the replacement of fire apparatus, self-contained breathing apparatus and personal protective clothing are highly regulated and very specialized. The City has made it a current practice to devote Proposition 172 funds (a special ½ cent sales tax state wide to support law and fire) to replace capital equipment for the fire department. We receive approximately 50% of those allocated funds with the Police Department receiving the other 50%.

Fire Agencies have time tested standards for the specification, purchase and acceptance of equipment as outlined in the National Fire Protection Standards. These NFPA standards were designed and development to ensure that fire agencies standardized the purchase and replacement of equipment and those municipalities were protected from litigation.

Current fire department management has outlined a plan to replace the apparatus, equipment and protective clothing of its member's in a pragmatic manner, aware of the budget burdens of a variety of departments within the City. The department has been aggressive in applying and receiving both federal and local grants to replace worn and outdated supplies. Grants of this nature are competitive and often require a City match. The department has also looked at determining the needed "bandwidth" to provide services to our community in the most cost effective manner. Department management will update this business plan on an annual basis and will use this document as a guide to both grant management and request annual budgets.

City of South Lake Tahoe Fire Department Business Plan

July 2017

ITEM	AGE	LIFESPAN	SUGGESTED REPLACE YEAR
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APPARATUS

Engine 1 #6214	3	12	2026
Engine 2 OOS surplus			
Engine 3 #6299	18	12	2011 Engine on order
Engine 203 #6103	14	12	2015
Truck 2 #6114	3	17	2031
Brush 1 #6109	7	15	2024
Brush 3 #6209	7	15	2024
Squad 3 #6108	8	15	2023
Battalion 3 #6111*	6	10	2021 *No take home vehicles
Boat OOS went to surplus 2015		In need of replacement now	Immediate
Utility 301 #6207	9	10	2017
Chief 300 #6107	9	10	2017

PERSONAL PROTECTIVE EQUIPMENT

Turnouts	10 (at the oldest)	10	2016 * on order – all new as of 2017
Wildland Gear	New as of 2015	10	2024

SCBA

SCBA 9/15	2	10	2025
Mobile Air Compressor	8	15	2024
Air Compressor	12	20	2025

TOOLS AND EQUIPMENT

<u>ITEM</u>	<u>AGE</u>	<u>LIFESPAN</u>	<u>REPLACE YEAR</u>
Hose	31(varies)	*** begin replacement due to testing/ 25% yearly	
Scene Lights	Varied	Replace when purchase new	
Thermal Imaging Camera	9	10	2015
Mustang Ice Suits	5	*** based on yearly inspection	
Chainsaws	Varied	10	replace with apparatus
Positive Pressure Ventilation	Varied	15	replace with apparatus
Wet Vacuums	Varied	10	replace with apparatus
Ladders (24", roof, attic)	Varied	10	replace with apparatus
4 Gas Monitors	2	2	2014
Radios	Varied		replace with apparatus
Extrication Tools	8	10*	2026

*based on response model, new tools on Truck

FACILITIES

Relocate Station 2	69	50	?
Remodel Station 3	59	50	?
Stain Station 1	22	50	2015

EMS CAPITAL EQUIPMENT

EKG Monitors (for engines)	12	8	Replaced in 2015
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Explanation

Apparatus: Create a vehicle replacement fund and schedule replacement for all apparatus including staff and utility vehicles. Type 1 engines and ladder trucks have a typical life span of 12 years. Brush engines and squads, due to lower usage, have a lifespan of 15 years. All other vehicles have a typical life span of 10 years. We should place Type 1 engines into a reserve status for 5 years after being taken out of front line service to serve as a backup engine for extra staffing needs and when apparatus is in the shop. The harsh winter conditions, the need for four wheel drive and the poor roadway system takes an incredible toll on fire apparatus chassis and running gears. These apparatus are started and run at Code 3 driving conditions. In winter condition the accumulation of road grime, the use of snow chains has taken a toll on body components.

Personal Protective Equipment: Create a replacement plan for PPE. NFPA standard 1851 calls for PPE to be placed out of service and replaced 10 years after the manufacturer date. 15 new sets were purchased in 2013. Each Firefighter should have two full sets of turnouts-one in service and a back-up set should the in service set sustain damage or need cleaning. Most of our turnouts will be out of service at the end of 2017. Nearly 2/3 of our stock have been purchased for replacement this year with the rest to be purchased in the 2016/17 budget cycle.

SCBA: Create a replacement plan for our Self-Contained Breathing Apparatus. Per NFPA standard 1981, composite SCBA bottles have a life span of 15 years. Significant code changes have dictated that SCBA should be updated with changes in technology, new OSHA laws dictate the these changes based on failures and new breathing air standards regarding low pressure alarm changes. SCBA allows firefighters to enter toxic environments and need constant maintenance and repairs. SLTFR replaced all SCBA with Scott breathing apparatus in 2015.

Facilities: Fire Stations have a typical life span of 50 years due to their heavy use. Fire stations 2 and 3 were built and acquired from Lake Valley FPD when the City developed its fire department. That actually occurred in 1966 one year after the City was formed. Those stations were built for the size of fire apparatus in the late 50's and 60's. Although several remodels have occurred at these fire stations their basic design was for smaller fire apparatus and less safety features. The City is involved in a

partnership with Lake Tahoe Community College for its fire science program; currently we store academy supplies at Station 4 (airport). With the advent of LTCC passing a bond measure to build a public safety training center it has been suggested that we relocate Fire Station 2 to that site. That concept is very sound but an outside funding source must be created to accomplish that task. The City also needs to create a plan to remodel and update Fire Station 3. Fire Station 1 is the only fire station that the City has built. It is critical that we create a maintenance plan to ensure that building meets its 50 year life plan. This should be our number one priority for facilities. In 2016 the exterior of Station 1 will be stained. Several other issues have been identified and repaired/replaced at Station 1.

EMS equipment: The delivery of emergency medical services, particularly advanced life support systems is a function of our JPA for transportation and of the City with our engines and squad. EMS is changing on a routine basis allowing field paramedics to perform increased life safety measures which in turn requires updated training and equipment. The City established paramedic engine companies in 2014 which requires expensive cardiac monitoring tools, advanced life support drugs and space for this service. When the JPA updates equipment, the City should follow that on their ALS engines.

Tools and equipment: Fire apparatus in essence is a giant tool box that delivers the needed tools to the scene of an emergency. This includes ladders, hose, saws and specialized rescue equipment to meet that challenge. The organization has not monitored the testing and replacement of that equipment on a regular basis. We have not had the funds to purchase new apparatus with new equipment so often times fire hose, ladders and the specialized tools are far older than the apparatus itself. In 2014 due to replacement of a new engine and a major reorganization the City we will now have a reserve engine that will not be fully equipped and require crews to swap equipment when a fire engine is broken or in for maintenance. This is problematic when off duty crews are required to staff that engine for a major emergency.

ITEM	COST PER UNIT	TOTAL COST(#UNITS)
Type I Engine	\$700,000+	N/A
Type III Engine	\$300,000	N/A
Truck	\$1,045,000	N/A
Utility vehicle	\$50,000	\$150,000
Squad	\$400,000	\$400,000
Boat	\$200,000	N/A
Turnouts	\$2,575	\$92,700 (36)
Wildland Gear	\$395	\$14,220 (36)
SCBA	\$10,200	\$327,000 (32)
Mobile Air Compressor	\$55,000	N/A
Air Compressor	\$91,000	N/A
Hose	\$1000- 750	\$14,000
Scene Lights	\$750	\$9,000 (12)
TIC	\$15,000	\$45,000 (3)
Mustang Ice Suits	\$900	\$2,700 (3)
Chainsaws	\$800	\$5,600 (7)
PPV	\$2,000	\$10,000 (5)
Wet Vacuums	\$1,600	\$8,000 (5)
Ladders (24", roof, attic)	\$1,250	\$5,000 (4)
4 Gas Monitors	\$750	\$3,000 (4)
Radios	\$2,000	\$48,000 (24)
Extrication Tools	\$15,000	\$45,000 (3)
EKG Monitors	\$35,000	\$105,000 (3)