



Lake Valley Fire Protection District

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County Staff,

Lake Valley Fire Protection District (LVFD) is presenting the following proposal and subsequent data to apply for Transient Occupancy Tax (TOT) funding for the County of El Dorado Board of Supervisors hearing on March 9, 2021. The following summary of information is available for staff to use in crafting a presentation to the Board of Supervisors, detailing the tourism impacts that LVFD experiences and the subsequent impacts to services for residents and visitors to the District.

LVFD has identified four (4) funding priorities for consideration by the Board of Supervisors. The District would like to impart on the Board of Supervisors the urgent needs of the District to fund Priorities 1-3 and consider funding Priority 4 based on the tourism impacts suffered by the District which are compounded by the following facts:

- The District has **81 percent** of the active VHRs in the County within its boundaries (520 of the total 639 active permits); and
- 100,000+ visitors travel along the Highway 50, State Route 89 corridor through the District every day; and
- The popular tourist destinations of Pope Beach, Camp Richardson, Emerald Bay, Sierra-at-Tahoe Ski Resort, and Heavenly Ski Resort are located within the District.

More detailed information regarding tourism impacts can be found in the attached document. The increasing numbers of tourists to the District has created a strain on the infrastructure in the Meyers and South Lake Tahoe community, making it difficult for LVFD fire apparatus to maneuver on peak travel days. The District taxpayers are shouldering the burden of emergency and medical responses for visitors that totaled just under \$300,000 in 2020. It is safe to assume that the number of VHRs, including non-permitted VHRs, will continue to increase in part due to the City of South Lake Tahoe's Measure T which effectively bans VHRs in most areas of the City. There are 167 pending VHR permits within LVFD as of February 23, 2021. In addition to overnight guests, the promotion of tourism and growth throughout the County has increased the number of day use visitors to the Tahoe area. No agency has accurately documented the total number of tourists traveling to the Basin.

LVFD is supportive of the Board of Supervisor's efforts to redirect TOT funding towards tourism impacts and hopes that the information provided here will outline the direct impacts tourism has to the Lake Tahoe basin side of the County, and specifically the ability for LVFD to continue to provide timely, safe emergency and fire protection services to the residents and visitors of the District.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brad Zlendick".

Brad Zlendick, Fire Chief
Lake Valley Fire Protection District

Lake Valley Fire Protection District

TOT Funding Summary

The following information provides a summary of tourism impacts to Lake Valley Fire Protection District (LVFD) and the request by LVFD for TOT revenue allocations for four (4) funding priorities to offset these impacts.

Tourism Impacts

- The Tahoe Transportation District (TTD) estimates that roughly 24 million visitors come to the Tahoe Basin each year, of which 40 percent are day visitors. Peaks in visitors to the basin generally occur on skier days, holidays, and weekends in the summer and winter months.¹
- The Tahoe Chamber of Commerce and Visitors Authority estimates over 100,000+ visitors per day travel through the Emerald Bay, Highway 89 corridor of LVFD.² Overnight visitors to LVFD are estimated at 22,325 people per day during the busy season. This equates to 1 local resident for every 5.5 visitors per day.
- There are approximately 22,315 permanent residents within the District as of 2020 with 13,367 parcels in LVFD boundaries that provide the main source of funding for LVFD through property tax and special assessment revenue.
- Lake Valley Fire has experienced an increase of 23.7% in calls for service from 2019 to 2020. The influx of tourists increases call volumes causing the District to rely more heavily on mutual aid from neighboring agencies, which include across the state line into Nevada.
- As of February 23, 2021, approximately 520 active Vacation Home Rentals (VHRs) permits were located within the District boundary with a total of 639 active permits County wide.³ This equates to **81 percent** of active VHRs in the County within the LVFD district area.
- Overnight visitors also include campgrounds at Fallen Leaf Lake and Camp Richardson Resort, as well as the Camp Richardson Hotel.
- Costs for the District to respond to visitor specific emergency services, vehicle accidents and extended calls totaled \$290,108.19 in 2020. These 193 visitor calls and the subsequent costs associated are a direct burden to District taxpayers.

¹ Tahoe Prosperity Center. 2018. Measuring for Prosperity: Community and Economic Indicators for the Lake Tahoe Basin. Available online at: <https://tahoeprosperity.org/wp-content/uploads/measuring-for-prosperity-community-and-economic-indicators-for-the-lake-tahoe-basin-2018.pdf>.

² Personal communication with Steve Teshara, Chief Executive Officer of the Tahoe Chamber.

³ County of El Dorado. 23 February 2021. Vacation Home Rentals (VHR) Map. Available online: <https://see-eldorado.edcgov.us/portal/apps/webappviewer/index.html?id=e80cdb0a711644e3b5e663a10a4d8f2e>



- The District boundaries include areas such as Pope Beach, Camp Richardson, and Emerald Bay. These areas are premier destinations for visitors in South Lake Tahoe. The District also serves two major ski areas: Sierra-at-Tahoe and Heavenly Valley.
- In 2019, the District responded to 1,224 calls for service on weekend and holiday days, or 56% of total calls. On average, response times for holiday and weekend days were 2 to 4 minutes longer than average weekdays. A breakdown in average response times (hours:minutes) for LVFD by month and weekday, weekend, and holidays is shown in Table 1 below.⁴

Table 1: Average Response times for LVFD in 2019 by Weekday, Weekend and Holidays

Month	Average Weekday Response Time	Average Weekend Response Time	Average Holiday Response Time*
Jan	0:08	0:14	0:19
Feb	0:08	0:11	0:20
Mar	0:10	0:14	0:10
Apr	0:09	0:09	
May	0:06	0:08	0:09
Jun	0:07	0:07	
Jul	0:06	0:11	0:16
Aug	0:09	0:10	
Sep	0:07	0:05	0:08
Oct	0:04	0:06	
Nov	0:06	0:05	0:07
Dec	0:09	0:12	0:06
Year Average	0:08	0:10	0:12
*Holidays include New Year's Day; Martin Luther King, Jr. Day; President's Day; Cesar Chavez Day; Memorial Day; 4 th of July; Labor Day; Veterans Day; Thanksgiving Day; Day after Thanksgiving; Christmas Day; New Year's Eve Day			

Response time data in Table 1 does not include calls for strike teams, transfers, and one backcountry mutual aid call in May 2019. In 2019, the longest response time for LVFD was to Sierra-at-Tahoe Ski Resort for a medical call on December 27th. It took Medic 7 from LVFD Station 7 in Meyers 1 hour and 41 minutes to get to Sierra-at-Tahoe leaving at 11:27am. Normally, this route would take 20 minutes without traffic.^{5,6}

- Delayed response times, such as an additional 12 minutes on holidays in February 2019 vs. the average weekday, can have life or death consequences. For cardiac arrests, every minute that passes without CPR and defibrillation decreases the chances of survival by 7-10 percent.⁷ In a

⁴ City of South Lake Tahoe, Dispatch Center. 2019. SLTFD FLD and Brush calls. Available from the South Lake Tahoe Dispatch Center.

⁵ Ibid.

⁶ Google Maps. Directions from Meyers Fire Station Lake Valley Fire Protection District, 2211 Keetak St, South Lake Tahoe, CA 96150 to Sierra-at-Tahoe Resort, 1111 Sierra-At-Tahoe Rd, Twin Bridges, CA 95735.

⁷ American Heart Association. 2013. Facts – Every Second Counts: Rural and Community Access to Emergency Devices. Available online at: https://www.heart.org/jdc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_472102.pdf.



recent study from the Journal of the American Heart Association, survival of a cardiac arrest is 19.5 percent when the EMS team arrives within 0-6 minutes, compared with 9.4 percent if team arrives after 10 minutes or more.⁸

- Response times are just as critical for fire as for medical emergencies and can have the same life or death consequences. It is generally recognized that a fire’s growth is exponential. The more time passes, the more a fire grows in intensity. The spread of fire to a “flashover” point (the point at which gases and other material ignite, which in turn ignites everything in a room) usually occurs within 5 to 8 minutes from the appearance of flame in typically furnished and ventilated buildings. Once flashover occurs, damage caused by the fire is significant and the environment within the room can no longer support human life. Thus, response time is critical to put out the fire prior to the flashover point.⁹
- Pictures are worth a 1,000 words – Appendix A shows images taken by residents of vehicle traffic during high traffic times and the corresponding response times for emergency calls on those dates if available.

Funding Priorities

In order to equip the District to better address tourism impacts as described above, LVFD proposes the following four (4) funding priorities using TOT revenue: Priority 1 – 2020 Direct Visitor Costs, Priority 2 – Apparatus Needs, Priority 3 – Staffing Needs, and Priority 4 – Total Current and Future Needs. Each priority includes a short description, summary statement, and a funding breakdown provided on the following pages. The table provided below shows summary information for all four priorities. Priority 4 is a combination of all three priorities plus some additional needs by the District that can be correlated to tourism impacts. LVFD hopes the Board of Supervisors will fund Priorities 1-3 and consider funding Priority 4.

Priority Number	Priority Type	Total Amount Requested	Timeline
1	2020 Direct Visitor Costs	\$290,108.19	One-time each FY
2	Apparatus Needs	\$350,000.00	One-time
3	Staffing Needs	\$107,960.46	2+ Year Contract
4	Total Current & Future Needs	\$2,239,788.37	Ongoing

⁸ Holmen, J., Hertliz., J., et. all. 27 October 2020. Shortening Ambulance Response Time Increases Survival in Out-of-Hospital Cardiac Arrest. Journal of the American Heart Association. 2020;9. Available online at: <https://doi.org/10.1161/JAHA.120.017048>.

⁹ El Dorado LAFCO. 26 September 2018. Study Session on the State of Fire Districts in the County and Options for Finances and Alternative Governance Models. Available online at: <https://www.edlafco.us/2018-09-26-commission-meeting>.



Priority 1 – 2020 Direct Visitor Costs

In 2020, the District identified 193 calls where personnel responded to visitors in need of emergency medical or fire protection services. These calls totaled \$290,108.19 with the cost burden placed directly on District taxpayers. LVFD utilizes a third-party collection agency and has policies in place to attempt to recoup some of these costs. However, the District is not generally able to make up the associated costs for service. This places an unnecessary burden on District taxpayers who provide the main source of revenue for the District.

The funding breakdown is divided into three different call types and the associated costs for responding to one of each call type. The last row of each table shows the number of visitor calls for 2020 in that call type and the associated costs for the year. The three different call types are: 1) emergency medical service (EMS) call, 2) vehicle accident, and 3) extended call.

Summary

Priority 1 would be one-time TOT funding of \$290,108.19 to cover costs associated with visitor specific calls in 2020. LVFD respectfully requests that, if the Board were to choose Priority 1, the District would be given the opportunity apply for additional TOT funding to cover visitor specific costs next fiscal year based on visitor calls for service and types of calls for the year prior.

Funding Breakdown

One EMS Call – Single Engine / Single Medic (2 hours total)

Engine Company	Hourly Rate	Total (2 hr)
Captain	\$47.53	\$95.06
Engineer	\$42.04	\$84.08
Firefighter-PM	\$38.94	\$77.88
Total Personnel Cost:		\$257.02
Engine Hourly Rate	\$140.00	\$280.00
Personnel & Equip		\$537.02
Admin Rate	13.26%	\$71.18
Total Reimbursement:		\$608.20
103 Visitor Calls for 2020		\$62,644.81

One Vehicle Accident - Two Engines & Chief Officer - 2.5 hours

Engine Company	Hourly Rate	Total (2.5 hr)
Captain	\$47.53	\$118.83
Engineer	\$42.04	\$105.10
Firefighter-PM	\$38.94	\$97.35
Personnel cost per eng.		\$321.28
2 Engines companies		\$642.55



	Hourly Rate	Total (2.5 hrs)
Chief Officer	\$81.54	\$203.85
Engine Hourly Rate	\$140.00	\$350.00
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2 Engines @ 2.5 hours		\$700.00
Personnel & Equip		\$1,546.40
Admin Rate	13.26%	\$204.98
Total Reimbursement:		\$1,751.38
55 Visitor Calls for 2020		\$96,325.64

One Extended Call - Three engines & Chief Officer - 4 hours

	Hourly Rate	Total (4 hrs)
Engine Company		
Captain	\$47.53	\$190.12
Engineer	\$42.04	\$168.16
Firefighter-PM	\$38.94	\$155.76
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Personnel cost per eng.		\$514.04
3 Engine Companies		\$1,542.12

	Hourly Rate	Total (4 hrs)
Chief Officer	\$81.54	\$326.16
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Engine Hourly Rate	\$120.00	\$480.00
3 Engines @ 4 hours		\$1,440.00
Personnel & Equip		\$3,308.28
Admin Rate	13.26%	\$438.51
Total Reimbursement:		\$3,746.79
35 Visitor Calls for 2020		\$131,137.74

2020 Total Visitor Costs: \$290,108.19



Priority 2 – Apparatus Needs

In order to efficiently and safely respond to emergency events the District is evaluating new ways of providing service without responding in a Type 1 Fire Engine through traffic and congestion. The District has heard repeatedly from its constituents and other members of the public concerns regarding the ability for emergency apparatus to efficiently maneuver through traffic to respond to emergency calls. This would require the purchase of a smaller more maneuverable apparatus, specifically a Squad/Quick Attack Apparatus. This type of apparatus also provides increased fire flow from the District's current model for wildland and structural type fires.

The Squad/Quick Attack vehicle would have the ability to respond down the Highway 50 corridor, well beyond the District boundary to Wrights Lake in the El Dorado County Fire District for mutual aid. Additionally, this resource would be able to respond with the CTESOA JPA ambulance resources into Eastern Alpine County and the Kirkwood Ski Area to support the EMS care the tourists require in those areas. Included in this priority would be the cost of the required rope rescue equipment that supports the Helicopter Rescue Team, high and low angle rope rescues, ice and swift water rescues, advanced life support (ALS) equipment, auto extrication equipment, and self-contained breathing apparatus.

Summary

Priority 2 would be a one-time purchase of the above-described apparatus at a total cost of \$350,000.00. LVFD respectfully requests that, if the Board were to choose Priority 2, the District would be given the opportunity to apply for additional TOT funding for other needed apparatus next fiscal year based on additional tourism impacts which require additional apparatus, such as a Fire/Rescue Boat and Quint Apparatus. A breakdown of the cost for these additional apparatus can be seen in Priority 4.

Funding Breakdown

Apparatus - Squad/Quick Attack	
Squad/Quick Attack Apparatus Cost	\$300,000.00
Rescue Equipment	\$50,000.00
Total Cost:	\$350,000.00



Priority 3 – Staffing Needs

On weekends, holidays, and red flag days during peak season the sheer volume of visitors to the District requires additional safety staffing to handle the volume and complexity of calls. Typically, the District staffs an additional firefighter-paramedic on eight (8) holiday weekends throughout the year. In addition, during the summer months and ski season, the District must increase staffing on weekends to handle the increases in call volumes and to provide additional protection during red flag warnings. This additional staffing occurs approximately 26 weekends out of the year.

As outlined below, staffing an additional Firefighter-Paramedic for 26 weekends per year on Fridays, Saturdays, and Sundays would cost \$82,558.00. In order to cover only holiday weekends with one additional Firefighter-Paramedic, the District would need \$25,402.46 per year. To staff one (1) additional Firefighter-Paramedic on 26 weekends per year and one (1) additional Firefighter-Paramedic on the eight (8) holiday weekends per year (which would give the District an additional two (2) Firefighter-Paramedic staff on the eight holiday weekends) the District would need a total of \$107,960.46 per year.

Summary

Priority 3 would fund two (2) additional firefighter-paramedics as outlined above at a total cost of \$107,960.46. In order to manage staffing and effectively plan future budgets, the District respectfully requests that the Board approve at least a two-year contract obligation for all, or part of the staffing requests if the Board chooses to fund this priority with TOT revenue. District staff propose to provide the Board with a presentation and report of the success of additional personnel during holidays and weekends at the end of each fiscal year.

Funding Breakdown

Additional Staffing - Fri/Sat/Sun for 26 Weekends per Year		
Additional Staffing	Hourly Rate	Total (72 hrs)
Firefighter-Paramedic	\$38.94	\$2,803.68
Total Personnel Cost:		\$2,803.68
Admin Rate	13.26%	\$371.63
Total Reimbursement:		\$3,175.31
1 Firefighter-Paramedic 3 days X 26 weekends:		\$82,558.00
Additional Staffing - 1 FF-PM for Fri/Sat/Sun for 8 Holiday Weekends per Year		
Additional Staffing	Hourly Rate	Total (72 hrs)
Firefighter- Paramedic	\$38.94	\$2,803.68
Total Personnel Cost:		\$2,803.68
Admin Rate	13.26%	\$371.63
Total Reimbursement:		\$3,175.31
1 Firefighter-Paramedic 3 days X 8 weekends:		\$25,402.46
Total additional Personnel Costs:		\$107,960.46



Priority 4 – Total Current & Future Needs

In addition to the apparatus and staffing requests outlined in Priorities 2 and 3, the District needs additional apparatus and equipment as well as funding for search and rescue operations. A breakdown in total current and future needs as it relates to tourism impacts to the District can be seen below. This includes those requests outlined in Priorities 1, 2, and 3 to give the Board of Supervisors a complete picture of the needs of the District. A description of the funding needs not listed in Priorities 1 through 3 are explained as follows:

Additional Apparatus

The Quint apparatus would take the place of one of LVFDs Type 1 Engines that is due for replacement. Currently, LVFD has applied for an Assistance to Firefighter Grant (AFG) to fund the replacement of the Type 1 Engine. The growth in the District of VHRs has increased the number homes constructed to be larger in size and scope than the standard 3-to-4 bedroom, 2-to-3-bathroom home. It is not uncommon for homes in LVFD to be 5+ bedrooms with the same number of bathrooms, constructed to operate as VHRs, with some even including indoor swimming pools. These larger homes require different firefighting equipment than what is commonly used. For example, roof access for venting fires requires larger and longer apparatus to attack large second and third story homes via deck access. The current ladder compliment on a Type 1 Engine does not meet these needs. The proposed Quint would allow LVFD to respond to fires safely and confidently at these larger homes and also allow the use of an elevated water stream to attack the fire. This is critical to stopping large fires from spreading house to house or into surrounding vegetation.

As mentioned previously, the District boundaries include Pope Beach, Camp Richardson, Emerald Bay, Sierra-at-Tahoe Ski Resort, and Heavenly Ski Resort. These areas are premier destinations for visitors in South Lake Tahoe. In order to protect and serve the visitors to these beach front areas a Fire Boat is essential. The amount of water rescues has continued to increase due to increases in day-use visitors, campgrounds campers, and VHR guests with Emerald Bay as the main destination. Whether it is through hiking, biking, boating, or driving the District responds to all calls for service at Emerald Bay. A Fire Boat would work hand in hand with LVFD's other traditional rescue capabilities while adding the ability for personnel to respond and transport patients quicker by circumventing the heavy traffic that occurs on the Highway 89 corridor, while concurrently providing a high level of patient care.

Helicopter Rescue Training & Equipment

LVFD collaborates with local law enforcement, CHP, and other fire agencies to provide backcountry medical rescue services throughout the District area and surrounding areas. In order to complete these types of rescues the El Dorado County Sheriff's and CHP have formed the Helicopter Rescue Teams in collaboration with LVFD and other fire agency partners to assist in medical rescues in the backcountry. Many of the rescues performed involve visitors/tourists to the area. This program allows an advanced life support (ALS) firefighter-paramedics to be transported by helicopter directly to the patient to begin care and prep for extrication and transport.



Summary

The District requests that the Board consider allocating 5 percent of the total TOT revenue collected in the Lake Valley Fire Protection District boundary to the District for funding projects, staffing, and equipment totaling \$2,239,788.37 to serve the visitors and residents of the LVFD community. This funding would be spread over the number of years needed to meet the funding goals while only receiving 5 percent of total TOT revenue collected within the District boundary each fiscal year. District staff propose to provide the Board with a presentation and report of the success of these additional funding activities at the end of each fiscal year.

Funding Breakdown

Total Current & Future Needs	
Call Response Staffing and Equipment	
EMS Calls	\$62,644.81
Vehicle Accidents	\$96,325.64
Extended Calls	\$131,137.74
Total Cost:	\$290,108.19
Additional Staffing	
Weekend Staffing for 26 weekends	\$82,558.00
Holiday Weekend Staffing for 8 weekends	\$ 25,402.46
Total Cost:	\$107,960.46
Apparatus and Equipment	
Squad/Quick Attack Apparatus	\$300,000.00
Rescue Equipment	\$50,000.00
Quint Apparatus	\$900,000.00
Rescue Equipment	\$75,000.00
Fire/Rescue Boat	\$450,000.00
Rescue Equipment	\$50,000.00
Total Cost:	\$1,825,000.00
Helicopter Rescue Training and Equipment	
Additional Staffing	\$4,968.72
HRT Equipment Needs	\$3,495.00
Winter/Backcountry Rescue Needs	\$8,256.00
Total Cost:	\$16,719.72
Overall Total Cost:	\$2,239,788.37

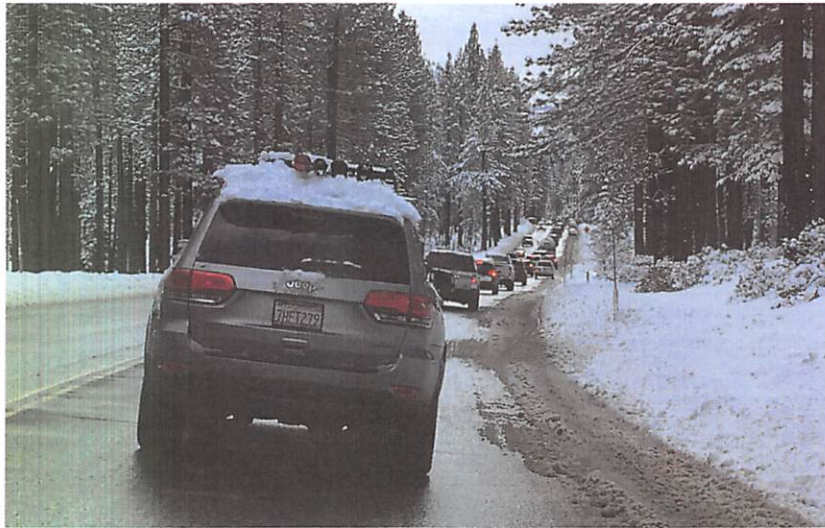


Appendix A – Photos & Correlated Calls

January 21, 2019 (Martin Luther King, Jr. Holiday)

LVFD dispatched Engine 7 and Medic 7 to a call at Strawberry Lodge at 2:58pm. The second image below, taken at 3:00pm, is Medic 7 traveling to this call along Pioneer Trail just past Player Drive and Elks Club Drive. Medic 7 arrived at the call in 29 minutes.¹⁰ From the point of this photo to Strawberry Lodge takes 19 minutes in no traffic. This equates to a **10-minute delay** due to traffic as pictured below. It took the resident who took these two images 10 minutes to travel 0.5 miles.

2:50pm – Pioneer Trail heading southbound towards Highway 50 just past Busch Way.



3:00pm – Pioneer Trail heading southbound towards Highway 50 just past Player Drive at Elks Clube Drive.



¹⁰ City of South Lake Tahoe Dispatch. Response Times 2019. Event #1901-1979. Available from the City Dispatch.



December 22, 2019 (Sunday before Christmas)

LVFD dispatched Battalion 7 and Medic 7 to a traffic collision with injury near the intersection of Mandan and Ojibwa Street at 11:46am. Both units traveling from LVFD Station 7 at Meyers took 12 minutes to respond to the call.¹¹ In no traffic, the units would have taken 4 minutes to arrive. This equates to an **8-minute delay** due to traffic as shown in the images below. Mandan Street is a common cut-through route for tourists and visitors attempting to by-pass heavy traffic on the Highway 50 corridor. Residents have reported numerous cases of tourists causing traffic backups or blocking the road due to insufficient traction control or not using chains leading to crashes. These incidents prevent LVFD from providing timely service to residents in the area.

Time Unknown – Mandan Street near Ojibwa Street



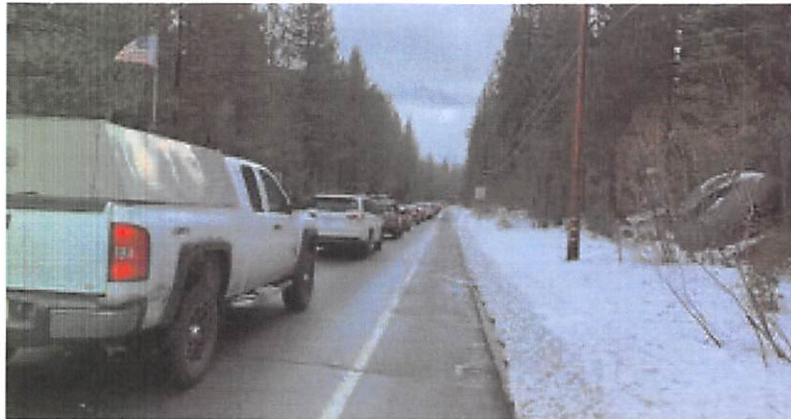
¹¹ City of South Lake Tahoe Dispatch. Response Times 2019. Event #1912-1850. Available from the City Dispatch.



January 26, 2020 (Sunday)

Traffic congestion on North Upper Truckee, such as depicted in the image below, can delay LVFPD's ability to respond to calls in this area as well as in the western areas of the District. Many visitors use North Upper Truckee to bypass congestion on the Highway 50 corridor leading to long lines of gridlock traffic. Priority 2 funding for the Squad/Quick Attack apparatus would allow LVFD personnel to more easily maneuver around gridlock traffic to get to emergency calls.

Time Unknown – North Upper Truckee heading southbound towards Highway 50.



March 1, 2020 (Sunday)

Traffic congestion on Mandan street, similar to the picture below, can delay LVFD's ability to respond to calls north of Station 7. Priority 3 funding would allow LVFD to staff other stations during high traffic periods, providing the option for responders to arrive from multiple directions for calls to reduce response times.

11:13am – Mandan Street heading westbound towards Highway 50 just after Erie Circle

