To: NTFPD Board of Directors
From: Michael S. Schwartz, Fire Chief
Date: 9/22/2020

SUBJECT: AGENDA ITEM #9, MONTHLY UPDATE REGARDING AMBULANCE SERVICE ALONG THE 89 AND 267 CORRIDORS

Background

At the regular meeting held on May 26, 2020, the Board requested a monthly update regarding service along the 89 and 267 corridors. Chief Schwartz will provide an update.

Recommendation

No action necessary. This is informational only.

Northstar Fire Department Ambulance Feasibility Study

September 2020

DRAFT

Executive Summary

The 2014 Northstar Community Services District Strategic Plan dictates that the fire department evaluate ambulance transportation services to the community of Northstar every five years at a minimum. The last ambulance feasibility study occurred in 2015, under the direction of Fire Chief Shadowens.

Emergency medical assessment and treatment is Northstar Fire Department's (NFD) most common emergency call. During 2019, the department responded to a total of 393 emergency calls. 197 (50.12%) required medical evaluation or treatment.

It is important to note that the current advanced life support program within the community of Northstar is an excellent service. Currently, advanced life support is provided by NFD Paramedics and ambulance transport is provided by either Truckee Fire Protection District (TFPD) or North Tahoe Fire Protection District (NTFPD). There are minimal gaps in ambulance coverage for the District. However, there are times in the Truckee-Tahoe Region when ambulance resources are stretched to maximum capabilities. When ambulances are being utilized in either the NTFPD or TFPD during peak periods, the Northstar community can be vulnerable to a reduced service level as a result. The Northstar Fire Department is one of the few fire agencies in the Truckee/North Lake Tahoe region that does not provide ambulance transport services.

Some, but not all of the costs of providing ambulance transport services are offset by revenue derived from patient-generated billing. Annual ambulance transport revenue varies widely, in large part due to fluctuations in the number of visitors to the community. Most of the visitors to the community of Northstar are directly related to the Northstar California Resort operations.

The benefits of NFD providing ambulance transport services include the potential to increase personalized service, allow District control over the availability of ambulances, and a reduction in the amount of time spent on the scene at a medical emergency. If NFD provided ambulance service, the District would be better insulated from TFPD or NTFPD potential ambulance shortages during times of peak demand. However, the disadvantages include reduced mutual aid support from TFPD and NTFPD, reduced funds for other operations such as community risk reduction projects, and no significant improvement in patient outcomes. When Northstar becomes a lessor priority, it rarely results in increased ambulance response times. This could change in the future if TFPD and NTFPD's call volume increases.

Given the current wildfire threat, unknown effects of the COVID-19 pandemic, and the cost (some known and some unknown) of providing ambulance transport services, it is recommended that NFD ***not provide ambulance transport services at this time.*** The community of Northstar continues to grow. This additional growth will lead to an increase in property tax revenue and an increase in the annual number of visitors. More visitors puts more pressure on the EMS system due to increased transport demand. Therefore, due to the extremely dynamic existing circumstances, this study should be re-evaluated within five years. This study should immediately be re-evaluated if any of the following conditions arise: increased ambulance response times, decreased availability of ambulances for the Northstar community, decreased quality of care, or increased available revenue sufficient to add two full-time firefighter/paramedics. Funds for the possibility of future ambulance service should be identified in the NFD Capital Replacement Plan to help offset the initial equipment costs estimated to be $131k. An annual contribution of $50k to $75k over the next three years is reasonable to accomplish this goal.

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Introduction

Emergency medical services (EMS)' primary goal is to immediately assess, treat, and transport injured and ill patients to definitive care. The Northstar Community Services District (NCSD) mission statement is: to deliver core public services to enhance the quality of life in the community. The mission statement of the Northstar Fire Department is: to enhance the quality of life for community members and visitors through community risk reduction, aggressive response, strong mutual aid agreements, and personalized service for any type of incident. To fulfill the fire department's mission, aggressive and personalized responses to emergencies must occur. Over 50% of Northstar Fire Department (NFD)'s calls are EMS in nature. Hence, a constant re-evaluation of the EMS program is warranted and a requirement of NCSD's strategic plan.

The problem is the Northstar Fire Department has not recently evaluated its EMS program to determine if providing ambulance service would enhance the program's effectiveness. The purpose of this study is to re-evaluate the Northstar Fire Department's EMS program and determine if adding ambulance transport services would enhance the quality of life to the community. This research problem answers three questions: a) Is the cost of providing ambulance service fiscally sustainable? b) Is the current ambulance transport service provided by outside agencies sufficient or could NFD ambulance transport improve patient care? c) Would NFD providing ambulance transport services improve personalized service, and if so, is it worth the cost when balanced with other District financial needs?

Background

In 2014, the Northstar Community Services District Board of Directors adopted a five-year strategic plan. It serves as a framework for decision making. It embodies a disciplined effort to produce fundamental decisions that shape what the District plans to accomplish by selecting a rational course of action. This planning process began with an environmental scan of the Northstar Community Services District's (NCSD) business environment, including an objective assessment of the District's strengths, weaknesses, opportunities, and threats. Input from various stakeholders was gathered and analyzed. Within the framework of the strategic plan, strategies and goals were developed to sustain and guide the District over the following five years.

Section 2.4.1 of the strategic goals from the 2014 strategic plan asks for a "complete analysis of providing ambulance service to the community." In response to this goal, a study on the feasibility of the NFD providing ambulance service was completed in 2015. The study found:

> When considering the need to add two additional firefighters to increase staffing, adding seasonal firefighters, the cost for equipment, annual expenses, and maintenance, the revenue will not support adding the program. With careful planning, the District could put aside the $396,000 for the initial equipment purchases while simultaneously allowing tax revenues from new development over the next several years to increase. This increased tax revenue would pay for the two full-time firefighters allowing ambulance revenues to pay for the replacement of equipment, annual expenses, and seasonal firefighters. With this approach, the financial picture looks a little better, and the District could, in fact, support providing ambulance service.

It has been five years since the last study. A re-evaluation of the feasibility of providing an ambulance transport service is warranted. Some of the conditions that existed during the last study have changed. This study reviews the District's strengths, weaknesses, opportunities, threats, its marketplace position, and its financial standing. It includes information on the District's service partners, primary customers, and relevant trends. The study also focuses on the proposed plan of action and provides a detailed estimate of revenues and expenses. This study is the work of the NFD's Fire Chief Sean Bailey with assistance from staff.

History of the Northstar Fire Department's Emergency Medical Service

NFD began serving the Northstar community in 1972. At that time, the department consisted of a full-time fire chief and a few volunteer firefighters. The first fire station consisted of a few pine pillars supporting a roof and housed the first fire engine. Nationally during the 1970s, the fire service was focused mainly on fire and rescue. EMS was provided either by hospitals, private ambulance services, or mortuaries. This EMS model was also the case in the Truckee/Tahoe Region. When the NFD began service to the community, the ambulance service provider for the area was Tahoe Forest Hospital. During this time, Northstar firefighters were certified to the American Red Cross Advanced First Aid level. Upon the completion of Station 31 in 1975, three full-time firefighters provided protection to the community. Volunteer firefighters heavily supplemented responses to incidents. Notification of emergencies within the community came via phone calls to the station. These calls were answered by members of the department who then dispatched themselves to the incident.

In 1978, the NFD hired its first Emergency Medical Technician (EMT). By 1979, staffing levels increased to two firefighters per shift. During this time, the local ambulance service provided EMT II level EMS services. An EMT II had a limited scope of advanced life support capabilities and could only give medications under the direct orders of a Base Hospital Physician, usually by radio contact.

In the late 80s, Truckee Fire Protection District (TFPD) took over ambulance service for the area from the Tahoe Forest Hospital District. At that time, the standard level of medical training for firefighter engine companies was EMT I-Basic Life Support (BLS). In 1998, NFD implemented an Automatic External Defibrillator (AED) Program, which added defibrillators to the fire engine medical equipment. While adding AEDs enhanced the medical capabilities of NFD, it was still only providing BLS level medical services. Understanding the importance of providing Advanced Life Support (ALS) services, the Board of Directors directed the fire chief to add paramedics to the fire department staff. On June 21st, 1999, the NFD increased its EMS level from BLS to ALS. One paramedic was assigned to each of the three shifts allowing ALS to be provided to the community 24 hours a day 365 days a year.

Results Research

Northstar Fire Department's Position within the Marketplace

NFD offers non-transporting ALS (paramedic) units. Of the nine fire departments surveyed for comparison within the Tahoe-Truckee area: five provide ALS ambulances, three provide non-transporting ALS units, and one (Olympic Valley Fire Department) is scheduled to provide ambulance transport services within the next twelve months. Meeks Bay Fire Protection District is currently operating under a

contract with North Tahoe Fire Protection District (NTFPD). NTFPD staffs ambulances in both fire districts.

The California Tahoe Emergency Services Operations Authority (CTESOA) provides ambulance transport service for the City of South Lake Tahoe, Fallen Leaf Lake Fire Protection District, and Lake Valley Fire Protection District (LVFPD) through a Joint Powers Authority (JPA) agreement. Fallen Leaf Lake Fire Protection District is operational only during the summer months. LVFPD houses two CTESOA ambulances and staffs them with LVFPD firefighter/paramedics. CTESOA's board of directors consists of two City of South Lake Tahoe city council members, two LVFPD board members, and one representative from Fallen Leaf Fire Protection District. This information is presented in Table 1.

Table 1: Ambulance Transporting Agencies in Lake Tahoe/Truckee

Agency	ALS (Paramedic)	Transporting (Ambulances)
Northstar Fire Dept.	**Yes**	**No (Truckee or North Tahoe)**
Truckee Fire PD	Yes	Yes
North Tahoe Fire PD	Yes	Yes
Meeks Bay Fire PD	Yes	Yes (thru operating contract NTFPD)
Olympic Valley Fire	Yes	Scheduled to start by 2021
North Lake Tahoe Fire	Yes	Yes
Tahoe Douglas Fire PD	Yes	Yes
South Lake Tahoe Fire	Yes	No (CTESOA)
Lake Valley Fire PD	Yes	Contract through CTESOA; Vehicle provided by CTESOA; Personnel supplied by Lake Valley Fire
Fallen Leaf Lake Fire PD	Yes	No (CTESOA)

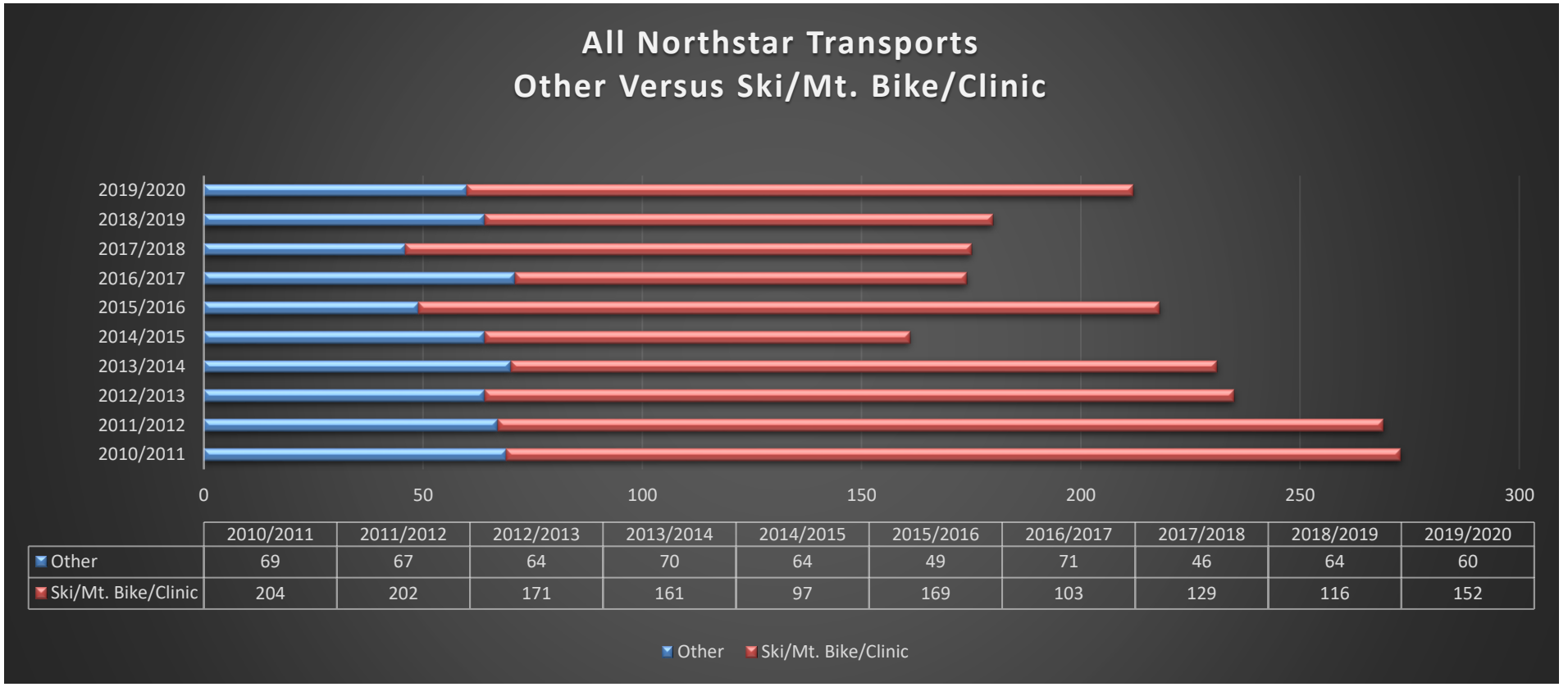
Primary Customers for Ambulance Transports in the Northstar Community

Most medical calls for service in the Northstar community are for traumatic injuries resulting from skiing, mountain biking, and vehicle accidents. Of these categories, skiing is by far the largest producer of medical transports. The number of skiers and, therefore, the number of patient transports can vary widely from year to year and seasonally.

Truckee Fire Protection District (TFPD) is the primary ambulance provider for the community of Northstar. In 2014, a boundary drop agreement was reached between several of the fire departments that included NFD, TFPD, NTFPD, and the SVFD. Under this agreement, the closest available resource is dispatched to the call for service. This initially caused an increase in the number of NTFPD ambulance responses to Northstar. Station 52 (NTFPD's Kings Beach station) became the next closest ambulance location when Station 96's (TFPD's airport station) ambulance was not in quarters. TFPD's current scheduled staffing at Station 96 is four personnel. This allows two personnel to respond to routine calls and two additional personnel to remain at the station for additional calls.

Chart 1 depicts the number of transports from Northstar for the last ten years. The number of transports due to skiing, mountain biking, and the clinic are shown in red. These calls make up 69.91% of the ten-year average of total EMS calls. During the decade indicated in the graph, the largest number of transports (273) occurred in 2010/2011, and the least (161) occurred in 2014/2015.

Chart 1: Ambulance Transports from Northstar 2010 to 2020.



	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Other	69	67	64	70	64	49	71	46	64	60
Ski/Mt. Bike/Clinic	204	202	171	161	97	169	103	129	116	152

Current staffing

NFD currently employs nineteen full-time professional personnel. All full-time fire personnel are trained and licensed paramedics, except for the Forester. Sixteen of the nineteen personnel are assigned to staff the stations for emergency response. Two (the Fire Chief and Division Chief) are available to respond to significant incidents. Each shift consists of two captains, two engineers, and one or two firefighters. These employees are divided between the District's two fire stations, Station 31 and Station 32. The department currently has five full-time personnel on two of the shifts and six full-time personnel on the third shift. When an employee is on leave (sick, vacation, CTO, or off-site training), the shift staffing drops by one. Overtime is used to ensure a minimum staffing level of four full-time personnel every day. In addition to the full-time shift personnel, NFD employs five seasonal firefighters. The seasonal firefighters work a full-time schedule eight months a year: four months in the summer and four months in the winter. Three of the current seasonal firefighters are also paramedics. Additional staffing includes a full-time Fire Chief/Paramedic, Division Chief/Paramedic, and Forester. These administrative positions work weekday hours. Table 2 depicts the current NFD emergency response staffing model.

Table 2: Current NFD Staffing

Current Northstar Fire Department Staffing		
A Shift Station 31	**B Shift Station 31**	**C Shift Station 31**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Firefighter/Paramedic	Firefighter/Paramedic	Firefighter/Paramedic
Seasonal Firefighter	Seasonal Firefighter	Firefighter/Paramedic
A Shift Station 32	**B Shift Station 32**	**C Shift Station 32**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Seasonal Firefighter	Seasonal Firefighter	Seasonal Firefighter

Operations

Both of the first out structure fire engines and the light rescue are equipped with a full complement of ALS equipment. The Grass Valley Emergency Command Center (GVECC) dispatches the closest available resource for emergency incidents. For most medical calls in Northstar, an ALS apparatus from each Northstar station responds. In addition, an ambulance from TFPD or NTFPD responds. TFPD staffs an ALS ambulance 4.9 miles from Station 31 at Station 96, near the Truckee Tahoe Airport. NTFPD staffs an ALS ambulance 7.2 miles away at Station 52, in Kings Beach near the intersection of Hwy 267 and Hwy 28.

During their assessment and treatment, NFD paramedics determine if the patient requires transport to the hospital. If the patient's condition is critical, the NFD paramedic will keep patient care and accompany

the patient, in the back of the assisting agency's ambulance, to the hospital. If a patient's condition is not critical, the NFD paramedic will transfer patient care to the assisting agency paramedic for transport. It is essential to realize that there is no difference in the level of care for paramedic non-transport units and paramedics on a transporting ambulance. The only difference is the ability to transport.

When an emergency medical call is dispatched in Northstar, one or two NFD apparatus responds. The number of apparatus depends on whether the Northstar California Resort has EMTs on scene or not. Each NFD apparatus is staffed with two or three paramedics. NFD resources arrive at the scene first to provide ALS interventions. The average NFD response time is six minutes and fifteen seconds; the average response time for the arrival of an ambulance is approximately 14 minutes (based on an average for the last four years - TFPD 14 minutes 5 seconds; NTFPD 14 minutes 18 seconds).

On most calls, patients are stabilized at the scene by NFD paramedics. Upon the arrival of the transporting ambulance, primary patient care is either kept by an NFD paramedic or transferred to the paramedic from the ambulance. The patient is transported to the nearest or appropriate hospital by the ambulance provider. Transferring patient care to the ambulance provider allows both NFD engine companies to remain in the District and available to respond to the next call with the same amount of personnel. Generally, on non-critical calls, only one paramedic is needed in the back of the ambulance. When patient care is transferred, some information can be lost between care providers. Additionally, scene times are slightly longer with a transfer of care, due to the time needed to transfer information and equipment.

If the NFD provided ambulance service (without adding additional staffing), the following would become a standard response: One engine and one ambulance would respond to an incident with a minimum of four full-time personnel and two seasonal firefighters. A standard medical transport would result in a seasonal firefighter and a paramedic transporting a patient to the hospital. This would leave two full-time personnel and one seasonal to run a second call. It is important to note; this is the same response in terms of apparatus and personnel that TFPD and NTFPD send to most medical calls in their jurisdictions (one engine and one ambulance).

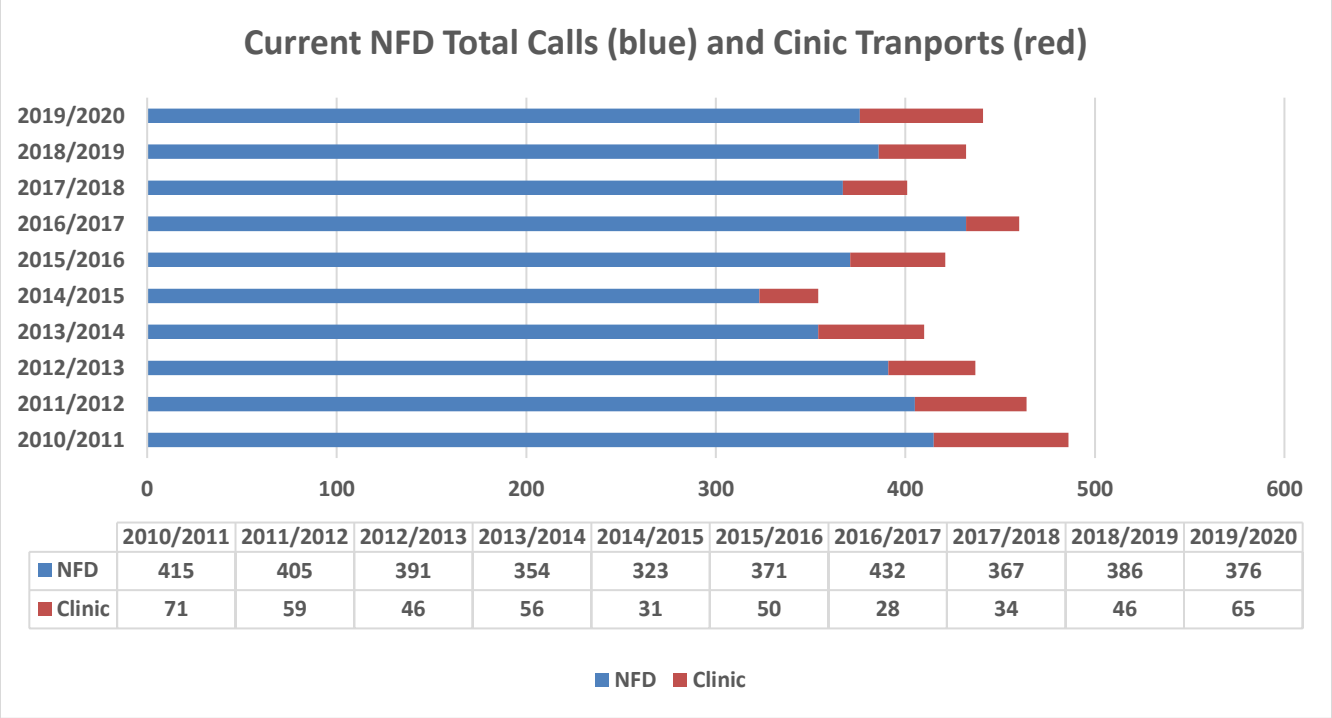
During the Spring and Fall, minimum staffing days would result in four full-time personnel and no seasonal firefighters. A standard medical transport would result in two personnel to transport a patient to the hospital and two personnel to respond to a second call. Approximately 85% of patient transports go to Tahoe Forest Hospital in Truckee. The remaining 15% of patients with specialized care needs, are transported directly to Reno hospitals.

One hour is the estimated total time allocated for the transport of an EMS patient to Tahoe Forest Hospital. Two hours is the estimated total time allocated for the transport of a patient to one of the facilities in Reno. These estimated times include time from dispatch to arrival at the patient's location, assessing/treating the patient, transporting the patient, interfacing with doctors, necessary paperwork, and drive time back to Northstar. Staffing of just two personnel decreases the level of service available to the community that might occur during transport. This scenario would make it difficult to effectively manage a large-scale incident such as a structure fire, major vehicle accident, or CPR call. To maintain our current minimum staffing and provide ambulance service, a minimum of six full-time personnel would need to be on duty to mitigate this scenario. Staffing of six would allow the District to maintain coverage of four personnel while two were away transporting a patient to the hospital. If a second medical call occurred

while the ambulance is committed, NFD would respond with an ALS engine and request a mutual aid ambulance (if available). A critical patient requiring additional personnel for transport is always a possibility. When this occurs, NFD provides additional personnel to assist with patient care. If NFD were to provide an ambulance transport service, this would not change.

Currently, only an ambulance responds for stable patients requiring transport to the hospital from the Northstar Medical Clinic; no NFD personnel respond. If NFD provided ambulance transport, this would include transports from the Northstar Medical Clinic. The number of calls from the clinic over the last ten years has varied from a low of 28 in 2016/2017 to a high of 71 in 2010/2011. Last year (2019/2020), there were 65 patients transported from the clinic to the hospital. This would represent an average of 11% increase in call volume for NFD (shown in red in Chart 2 below). It is important to note that "Current NFD Total Calls" and "Clinic Transports" (shown below) are different from the total number of ambulance transports. NFD Total Calls include non-medical calls such as structure fires, wildland fires, public assists, hazardous materials spills, etc. As noted earlier, Clinic Transports currently only involve outside agency ambulances. The total number of ambulance transports are shown in the first row of Table 6.

Chart 2: Current NFD Total Calls and Clinic Ambulance Transport Calls.



	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
NFD	415	405	391	354	323	371	432	367	386	376
Clinic	71	59	46	56	31	50	28	34	46	65

Recommended Staffing and Cost

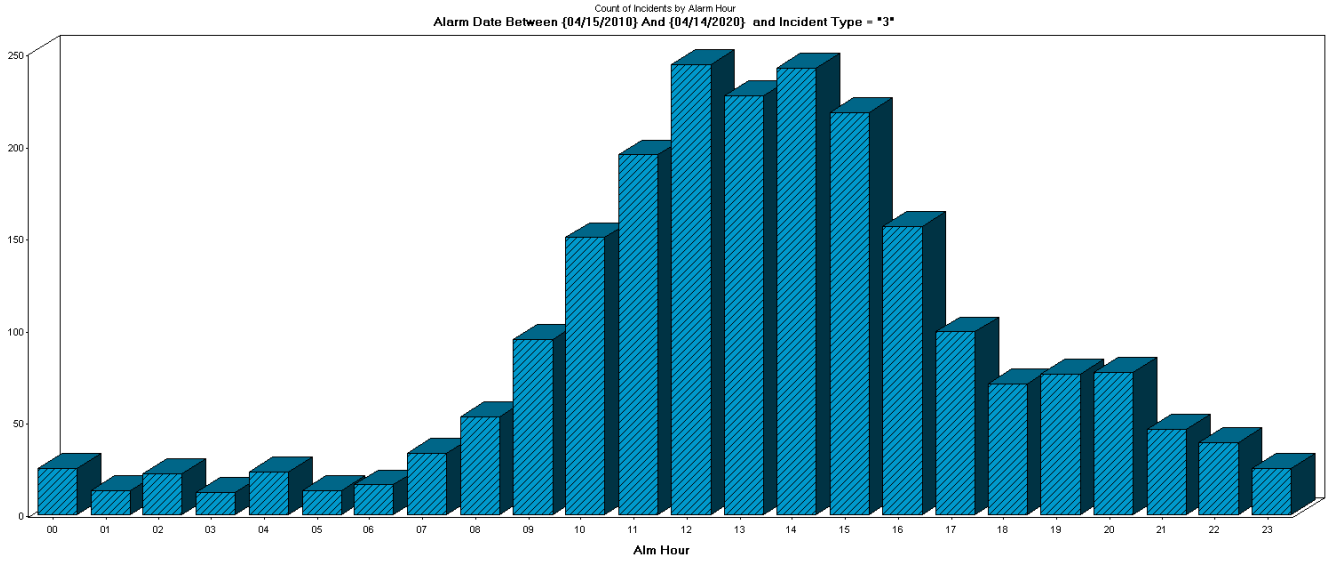
Ambulance transport requires personnel to staff an ambulance for all EMS calls from the time of call until its release, which usually includes transporting the patient to the hospital. Additional staffing comes at a cost. To better understand the possible staffing options and their pros and cons, extensive research was conducted and is summarized below.

The following three graphs illustrate call volume by:

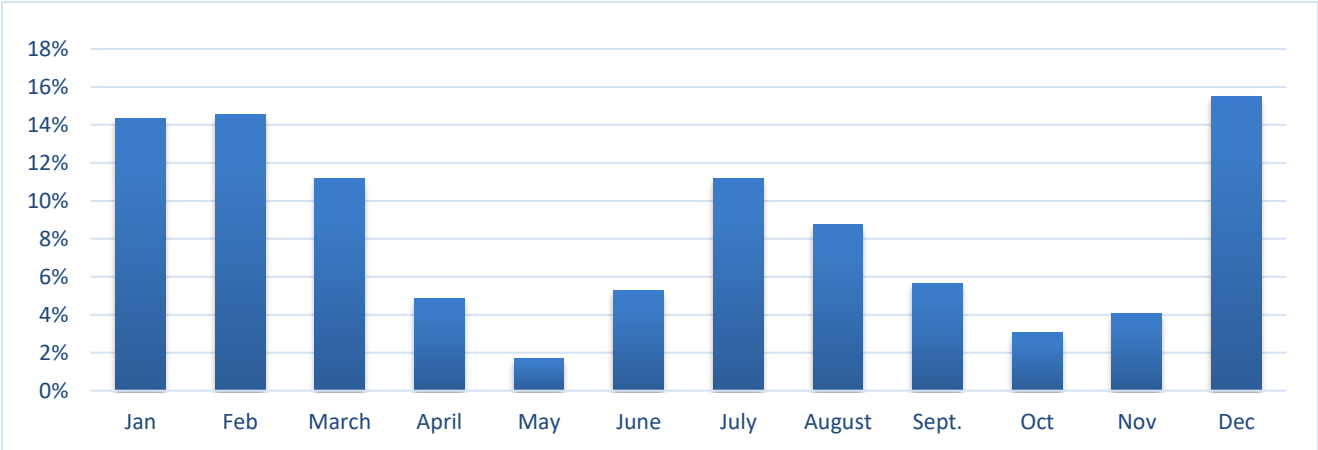
- Time of day
- Time of year
- Day of week

(The data for the three graphs is from Northstar Fire Department's Firehouse Incident Reporting System Software.)

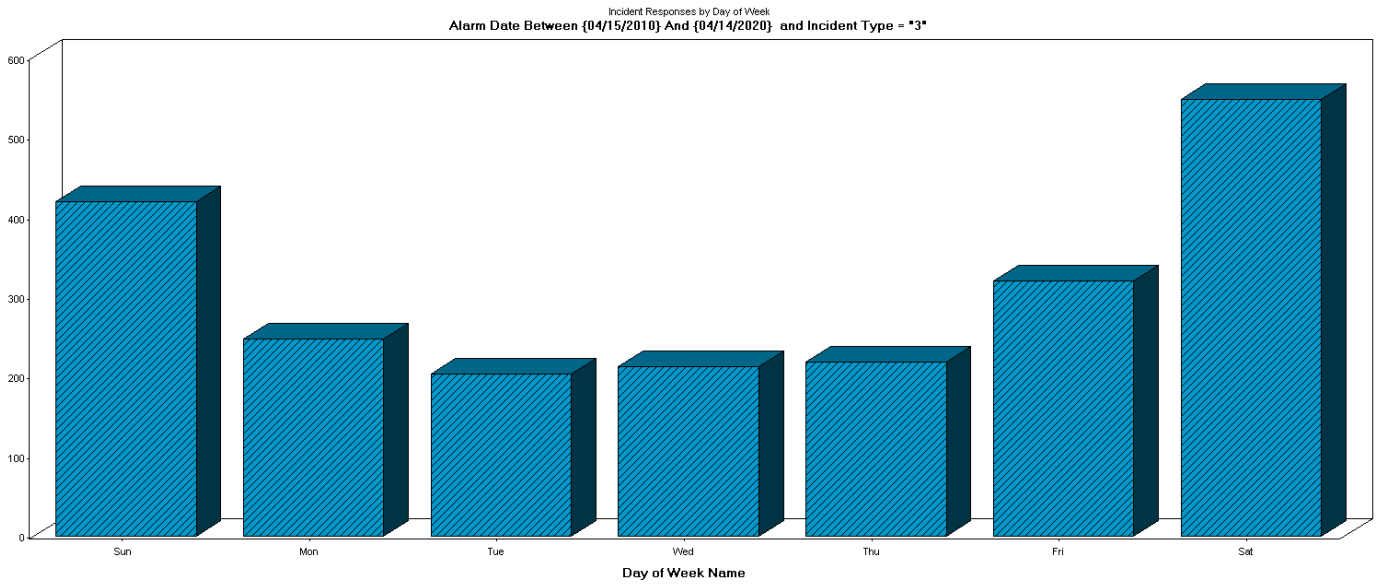
Graph 1: Number of NFD EMS calls by time of day, 2010 to 2020.



Graph 2: Percentage of total NFD EMS calls by month, 2010 to 2020.



Graph 3: NFD EMS calls by day of the week, 2010 to2020



Proposed Staffing

The author proposes four different staffing models. Each has pros and cons. All are based on the historical data provided in the previous sections.

Proposed Staffing Model 1

Hire two additional full-time firefighter/paramedics, one additional seasonal firefighter/EMT and two seasonal part-time firefighter/EMTs as drivers. The seasonal part-time firefighter/EMTs would work from 0900 to 1900 during the winter and summer. This staffing model provides ambulance transport services to the community with no loss in staffing coverage. It would substantially increase coverage during the time the ambulances were not transporting. This would allow for four-person engine company responses most of the time.

Table 3: Proposed Staffing Model 1

Proposed Staffing Model 1 for Ambulance Transports		
A Shift Station 31	**B Shift Station 31**	**C Shift Station 31**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Firefighter/Paramedic	Firefighter/Paramedic	Firefighter/Paramedic
Firefighter/Paramedic (Cross Staffing Ambulance)	Firefighter/Paramedic (Cross Staffing Ambulance)	Firefighter/Paramedic (Cross Staffing Ambulance)
Seasonal Firefighter	Seasonal Firefighter	Seasonal Firefighter*
A Shift Station 32	**B Shift Station 32**	**C Shift Station 32**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Seasonal Firefighter	Seasonal Firefighter	Seasonal Firefighter
A Shift Ambulance 0900 to 1900	**B Shift Ambulance 0900 to 1900**	**C Shift Ambulance 0900 to 1900**
Firefighter/Paramedic (Cross Staffing Engine)	Firefighter/Paramedic (Cross Staffing Engine)	Firefighter/Paramedic (Cross Staffing Engine)
Seasonal/PT/Firefighter*	Seasonal/PT/Firefighter*	Seasonal/PT/Firefighter*

* Added position.

Proposed Staffing Model 2

Hire one full-time firefighter/paramedic, one seasonal part-time firefighter/paramedic and two seasonal part-time firefighter EMTs. The seasonal part-time firefighter/paramedic and the two seasonal part-time firefighter EMTs would cover shifts from 0900 to 1900 during the summer and winter. This would allow for year-round increased staffing on one shift and additional staffing when most EMS calls occur on the third shift.

Table 4: Proposed Staffing Model 2

Proposed Staffing Model 2 for Ambulance Transports		
A Shift Station 31	**B Shift Station 31**	**C Shift Station 31**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Firefighter/Paramedic	Firefighter/Paramedic	Firefighter/Paramedic
Firefighter/Paramedic (Cross Staffing the Ambulance)	Seasonal Firefighter	Firefighter/Paramedic (Cross Staffing the Ambulance)
A Shift Station 32	**B Shift Station 32**	**C Shift Station 32**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Seasonal Firefighter	Seasonal Firefighter	Seasonal Firefighter
A Shift Ambulance 0900 to 1900	**B Shift Ambulance 0900 to 1900**	**C Shift Ambulance 0900 to 1900**
FT/Medic (Cross Staffing the Engine)	Seasonal/PT/Medic*	**FT/Medic (Cross Staffing the Engine)**
Seasonal/PT/Firefighter*	Seasonal/PT/Firefighter*	Seasonal/PT/Firefighter*

Proposed Staffing Model 3

Proposed staffing model 3 provides ambulance staffing during the most likely time-periods ambulance transports occur. The proposed staffing model includes two seasonal part-time paramedics and two seasonal part-time EMTs.

Table 5: Proposed Staffing Model 3

Proposed Staffing Model 3 for Ambulance Transports		
A Shift Station 31	**B Shift Station 31**	**C Shift Station 31**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Firefighter/Paramedic	Firefighter/Paramedic	Firefighter/Paramedic
Seasonal Firefighter	Seasonal Firefighter	**Firefighter/Paramedic (Cross Staffing the Ambulance)**
A Shift Station 32	**B Shift Station 32**	**C Shift Station 32**
Captain/Paramedic	Captain/Paramedic	Captain/Paramedic
Engineer/Paramedic	Engineer/Paramedic	Engineer/Paramedic
Seasonal Firefighter	Seasonal Firefighter	Seasonal Firefighter
A Shift Ambulance 0900 to 1900	**B Shift Ambulance 0900 to 1900**	**C Shift Ambulance 0900 to 1900**
Seasonal Medic*	Seasonal Medic*	**Firefighter/Paramedic (0800 to 1800) (Cross Staffing the Engine)**
Seasonal/PT/Firefighter*	Seasonal/PT/Firefighter*	Seasonal/PT/Firefighter*

* Added position.

Proposed Staffing Model 4

Use the current staffing model to staff the ambulances. This is the most financially feasible option. However, it would reduce the overall staffing coverage in the District whenever an ambulance is transporting a patient. In other words, ambulance transport services, under this option, would cause an overall reduction in service to the community. See Table 2.

Under the proposed staffing models, the personnel staffing the ambulance would be out of District for slightly less than one hour per day during a ten-hour shift. Again, this occurs most often between 0900 and 1900 during the winter and summer months. See Table 6.

Table 6: Personnel out of District Estimated Time for Ambulance Transport

	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Total Ambulance Transports	273	269	235	231	161	218	174	175	180	212
Total Commitment Time	313.95	309.35	270.25	265.65	185.15	250.7	200.1	201.25	207	243.8
Avg. Hours Committed per Day	0.86	0.85	0.74	0.73	0.51	0.69	0.55	0.55	0.57	0.67
Avg. Hours Committed per Day During Winter/Summer	1.11	1.09	0.96	0.94	0.65	0.89	0.71	0.71	0.73	0.86

Notes: Total Commitment Time is Total Ambulance Transports multiplied by 85% at 1 hour (TFH) plus 15% of Total Ambulance Transports at 2 hours (Reno)
Avg. Hours Committed per Day is Total Commitment Time divided by 365
Avg. Hours Committed per Day During Winter/Summer is Total Commitment Time multiplied by 1.29 divided by 365. The 1.29 factor is derived from 71 percent of the transports occurring during the Winter and Summer time periods.

Equipment

Current Equipment

Station 31's emergency response vehicles include Engine 31, Truck 31, and Brush 31. Station 32's emergency response vehicles include Engine 32, Brush 32, and Rescue 32. The Northstar Fire Department utilizes an operational strategy known as cross-staffing. The term cross-staffing means that there are not enough personnel available to staff each apparatus simultaneously. Instead, a single-engine company of 2-4 personnel will respond to an emergency in the apparatus best suited for that particular emergency. Engine 31, Engine 32, and Rescue 32 each have a full complement of ALS equipment. In other words, each apparatus has all of the same medical equipment as an ambulance. The one exception is patient transport devices such as a gurney.

Required Equipment

Sierra Sacramento Valley Emergency Medical Service Agency (SSVEMSA) is the licensing authority for ambulance permits. SSVEMSA requires all transporting agencies to have a minimum of two ambulances. One ambulance is to be utilized as the primary ALS apparatus and the other is to be used as a backup. This requirement can be met by contracting with another agency for a reserve ambulance.
Northstar fire stations could comfortably house two ambulances. One would be housed at Station 31 and one at Station 32. The only displacement of apparatus would be at Station 31, where one utility truck (pick-up) would be parked outside. The stations also have adequate storage for the required additional ambulance re-stock equipment. The application process for SSVEMSA is listed in Addendum A. The author discussed the application process with Vickie Pinette, Executive Director of SSVEMSA. She did state SSVEMSA would require a financial analysis that included impacts to NFD, TFPD, and NTFPD.

Equipment Costs and Annual Expenses

The ideal situation would be to purchase two ambulances before implementing an ambulance transport program. Ambulance values depreciate rapidly. The cost of an ambulance new is $180,000 to $240,000. Conversely, a used ambulance with less than 75k miles can be purchased for $25,000 to $50,000. A used ambulance will need to be replaced 10-15 years after its in-service date. It is estimated that each ambulance will incur approximately 7,700 miles a year. The total estimated emergency transport mileage would be 5,453 split between the two ambulances. (This number is calculated from the last five-year average of 192 transport calls. Of these calls, 85% travel 20 miles, 3,264 miles, and 15% travel 76 miles, 2,189 miles.) An additional 10k miles for non-transport, training, and station coverage activities would be split between the two ambulances. The data suggests, an ambulance housed at Station 32 would see the majority of the transports. This is due to its proximity to the ski resort. Based on this data, Station 32's ambulance is scheduled for replacement after ten years. Station 31's ambulance is scheduled for replacement after 15 years (see Table 8). It is estimated the ambulances would each have a total of 175k miles at the time of their replacement. Neighboring fire districts' ambulances are also scheduled for replacement at this mileage. The following tables outline the initial costs of the two ambulances, equipment, and the amount that should be set aside annually for replacement. Both ambulances would be entered into the NCSD Capital Replacement Program schedule. This program includes inflation increases. It is reasonable to think inflation would increase at the same rate as the collected revenue during the in-service time period.

Costs listed below reflect only the new or additional costs for adding two ambulances. Actual costs for existing ALS equipment carried on the fire engines are in the current budget and replacement schedule. NFD anticipates keeping one ALS equipped engine in addition to the ambulances. $50k is already allocated in the NCSD Capital Replacement Plan for the purchase of ambulances. The initial application fee for Sierra Sacramento Valley Emergency Medical Services (SSV) agency to provide ambulance services is $1,000. The continuing annual fee is the same for ambulance service as it is for ALS non-transporting services, which NFD already pays. An estimated legal review fee is estimated at $10k. See Tables 7 and 8.

Table 7: Initial Costs

Initial Costs (Ambulances and Equipment)	
Ambulance 1 (Used)	$50,000
Ambulance 2 (Used)	$50,000
Ambulance 1 Equipment	$35,000
Ambulance 2 Equipment	$35,000
SSV Application Fee	$ 1,000
Legal Fees	$10,000
Total Costs	$181,000
Total Amount identified in the NCSD Capital Plan for Ambulances	($50,000)
Total Needed Start-Up Costs	$131,000

*Ambulance equipment includes Gurneys, stair chair, oxygen tank systems, radios, and identification (striping).

Table 8: Capital Replacement Costs

	Initial Cost	Replacement (10 yr.)	Replacement (15 yr.)	Total Annual Reserve
Ambulance 1	$ 50,000	$50,000	$0	
Ambulance 1 Equipment	$ 35,000	$35,000	$0	
Ambulance 2	$ 50,000	$0	$75,000	
Ambulance 2 Equipment	$ 35,000	$0	$35,000	
Total Cost	$170,000	$85,000	$110,000	
Annual Reserve Contribution		$8,500	$7,333	$15,833

Anticipated Revenue and Annual Expenses

Annual expenses include fuel, ambulances insurance, general maintenance, and re-supplying of medical equipment utilized on calls, see Table 9.

Table 9: Annual Other Operating Expenses

Annual Other Operating Expenses	Estimated Cost
Maintenance	$8,000 (estimate from NFD mechanic)
Insurance	$1,912 (Quote from Insurer-FAIRA)
Fuel	$3,980 (20k miles, 10mpg, $1.99/gallon)*
Re-stock Medical Supplies	$8,000 (estimated by NFD EMS director)
Total Annual Other Operating Expenses	$21,892

*$1.99 per gallon of diesel fuel is the current price the District pays for bulk fuel.

Anticipated revenue was derived from information gathered from Grass Valley Emergency Command Center dispatch records. TFPD's new ambulance transport rates (approved May 19th, 2020) are a flat rate of $2,239.90 and $46.90 per mile. NTFD charges a flat rate of $2,190 and $47.00 per mile. For this study, TFPD's rates were used since they provided the majority of transports from Northstar and were updated most recently. Total mileage to Tahoe Forest Hospital is estimated at 10 miles and mileage for Reno was estimated at 38 miles.

Ambulance providers have contractual agreements with insurance providers, MediCal, and Medicare for a reduction in the total amount billed. This amount results in an average of 35% write off from the amount billed. Overall, the average percent collected for TFPD is only 49% to 52% of what is billed. Private billing companies typically charge around 7% of what is collected. Private company billing is necessary for today's insurance environment to receive maximum reimbursement amounts and to keep abreast of MediCal and Medicare regulations. Although the 50% average collection rate does not seem like a large percentage, it is actually better than the industry average of 30%. All of this is depicted in Table 10 (date range for each year is May 1st to April 30th).

Based on this data, TFPD's annual average net revenue based on the last five-year average is $143,339 and NTFPD is $24,944. This translates to an expected net revenue of $168,283 based on the last five-year average.

($191,470+$151,946+$153,703+$158,094+$186,200)/5 =$168,283.

Truckee Fire Protection District Transports From Northstar										
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Other	62	57	62	61	54	41	49	39	56	51
Ski/Mt. Bike	133	142	118	92	51	108	63	87	65	73
Clinic	68	59	46	46	26	37	22	28	39	58
Total TFPD	263	258	226	199	131	186	134	154	160	182
Est. Gross Revenue	**$ 764,246**	**$ 749,717**	**$ 656,729**	**$ 578,270**	**$ 380,670**	**$ 540,494**	**$ 389,388**	**$ 447,506**	**$ 464,941**	**$ 528,870**

North Tahoe Fire Protection District Transports From Northstar										
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Other	7	10	2	9	10	8	21	7	8	9
Ski/Mt. Bike	0	1	7	13	15	11	12	8	5	14
Clinic	3	0	0	10	5	13	6	6	7	7
Total NT	10	11	9	32	30	32	39	21	20	30
Est. Gross Revenue	**$ 29,059**	**$ 31,965**	**$ 26,153**	**$ 92,988**	**$ 87,176**	**$ 92,988**	**$ 113,326**	**$ 61,023**	**$ 58,118**	**$ 87,176**

Total Transports Truckee and North Tahoe from Northstar										
	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Other	69	67	64	70	64	49	70	46	64	60
Ski/Mt. Bike	133	143	125	105	66	119	75	95	70	87
Clinic	71	59	46	56	31	50	28	34	46	65
Total TFPD & NT	273	269	235	231	161	218	173	175	180	212
Est. Gross Revenue	$ 793,305	$ 781,682	$ 682,882	$ 671,258	$ 467,847	$ 633,482	$ 502,717	$ 508,529	$ 523,058	$ 616,047
Contractual Loss 35%	$ 277,657	$ 273,589	$ 239,009	$ 234,940	$ 163,746	$ 221,719	$ 175,951	$ 177,985	$ 183,070	$ 215,616
Subtotal	$ 515,648	$ 508,093	$ 443,873	$ 436,318	$ 304,100	$ 411,763	$ 326,766	$ 330,544	$ 339,988	$ 400,430
Collection Rate 50%	$ 257,824	$ 254,047	$ 221,937	$ 218,159	$ 152,050	$ 205,882	$ 163,383	$ 165,272	$ 169,994	$ 200,215
Subtotal	$ 257,824	$ 254,047	$ 221,937	$ 218,159	$ 152,050	$ 205,882	$ 163,383	$ 165,272	$ 169,994	$ 200,215
Bill Company Fee 7%	$ 18,048	$ 17,783	$ 15,536	$ 15,271	$ 10,644	$ 14,412	$ 11,437	$ 11,569	$ 11,900	$ 14,015
Net Revenue	**$ 239,777**	**$ 236,263**	**$ 206,401**	**$ 202,888**	**$ 141,407**	**$ 191,470**	**$ 151,946**	**$ 153,703**	**$ 158,094**	**$ 186,200**
Notes	**Flat Fee**	**Avg. Miles**	**$/mile**	**Total**	**Transports**					
Transport to TFH	**$ 2,239.90**	**10**	**$ 46.90**	**$ 2,708.90**	**85%**					
Transport to Reno	**$ 2,239.90**	**38**	**$ 46.90**	**$ 4,022.10**	**15%**					

Table 11: Annual Revenue less Other Operating Expenses

Time Period	Estimated Revenue	Estimated Annual Other Operating Expenses*		Total (Lost)/Contribution to Reserves
		Annual Capital Reserves Contribution	Annual Expenses	
2010/2011	$239,777	$15,833	$21,892	$202,052
2011/2012	$236,263	$15,833	$21,892	$198,538
2012/2013	$206,401	$15,833	$21,892	$168,676
2013/2014	$202,888	$15,833	$21,892	$165,163
2014/2015	$141,407	$15,833	$21,892	$103,682
2015/2016	$191,470	$15,833	$21,892	$153,745
2016/2017	$152,825	$15,833	$21,892	$115,100
2017/2018	$153,703	$15,833	$21,892	$115,978
2018/2019	$158,094	$15,833	$21,892	$120,369
2019/2020	$186,200	$15,833	$21,892	$148,475
Last 5-year avg.	$168,458	$15,833	$21,892	$130,733

**Not including staffing. All revenue is based on today's dollar and collections rates using the past annual ambulance transports volume.*

Discussion

Regional Effect

TFPD and NTFPD are currently the primary providers of ambulance transportation from the community of Northstar. NFD has considered providing ambulance service in the past. Ambulance studies were performed by both previous NFD Fire Chiefs Zahn and Shadowens in 1999 and 2015, respectively. Due to NFD's ability to provide ALS care on all current calls in-District, this study and previous studies determined there would be no significant difference in patient care or outcomes regardless of the entity providing ambulance transport (assuming the availability of automatic aid from TFPD or NTFPD). Usually, NFD personnel are on the scene ten minutes before the arrival of the ambulance. The NFD paramedics use this time to stabilize and assess the patient. There are very few incidents where the NFD is waiting for the arrival of the ambulance. The frequency of NFD paramedics waiting for an ambulance has decreased further since TFPD increased the staffing level at Station 96.

When considering whether or not the Northstar Fire Department should provide ambulance transport services, thoughtful consideration needs to be taken on the effects on the community of Northstar and the region's existing system. Due to the relatively small nature of the different local fire agencies in the area,

the departments need to work together to share resources. This is done under automatic and mutual aid agreements. No one fire agency can handle all of its emergencies without help from adjoining agencies. The cost of staffing and equipment for a department to handle all possible emergencies alone is fiscally unrealistic. In addition, a considerable amount of staffing and equipment would spend much of the time idle.

Both Chief Seline of the TFPD and Chief Schwartz of the NTFPD have stated their opposition to NFD providing ambulance transport services in the current environment through written and verbal communication.

Staffing Options

The author formulated four possible staffing options based on the data uncovered during the extensive research. The four ambulance staffing models vary in terms of pros and cons.

Staffing Option 1 provides the best coverage and actually increases staffing for other emergencies such as wildland fires. However, the annual financial cost of $288k is a substantial amount of money that would require cuts to other programs. See Table 3.

Option 2 provides good overall staffing coverage with reduced staffing between 1900 and 0900 during 2 of the 3 shifts. The annual financial cost of $57,950 is less than Option 1, but still significant enough to require cuts to other programs.

Option 3 provides additional staffing during the most likely times for ambulance transports. Staffing is increased during times when a wildfire is more common and provides more personnel on a fire engine for an initial response. It does, however, reduce staffing from 1900 to 0900 if an ambulance call is received.

Options 2 and 3 are based on the historical data provided in the Recommended Staffing and Cost section. This data illustrates EMS calls are most likely to occur during the winter and summer months between 0900 (9 am) and 1900 (7 pm). Since one shift already has an additional full-time firefighter/paramedic assigned to it, NFD would need an additional paramedic on shift from 0900 to 1900 each day on the two remaining shifts to keep staffing at its current level. Ten hours a day split between two of the three shifts equals an extra 46.67 hours per week from December 15th through April 15th and June 15th to October 15th. In addition to the paramedic, ambulance transport requires a person to drive the ambulance. This could be accomplished by anyone with an EMT or higher medical certification. A driver would be required 70 hours per week. See Tales 4 and 5.

The most cost-effective method of providing this staffing is to hire seasonal part-time employees. For an ambulance driver, two seasonal part-time employees would split the seventy hours a week. See Tables 12 and Table 13 cost to provide additional staffing for ambulance transports. During the hours of 1900 (7 pm) to 0900 (9 am), all ambulance transports would result in having to unstaff a station until the ambulance returns to the District. While not ideal, according to historical data, the chances of a second call between the hours of 1900 (7 pm) and 0900 (9 am) is unlikely. This decreased staffing would last for the one to two hours the ambulance would be out of the District. This is a reduction in staffing and, therefore, service to the community during the time an ambulance is transporting. Under the staffing models 2 and 3, during the period of time from 0900 to 1900 (9 am to 7 pm), there would be an increase in the amount of regional fire

personnel staffing even if TFPD reduced its staffing at 96 by one person. There would, however, be a decrease in the on-duty fire personnel to the region from 1900 to 0900 (7 pm to 9 am) if staffing at Station 96 is decreased.

Table 12: Cost to Provide Additional Staffing for Ambulance Transport

	Hours/ Week	Hourly Rate	Total Weekly	Weeks/ Year	Annual Staffing Costs
Full-Time Firefighter/Medic	**Salary Including Benefits**				**$125,955**
Seasonal Firefighter/EMT	**56**	**$ 22.00**	**$1,265**	**37.33**	**$47,222**
Seasonal Part-Time FF/Medic	**35**	**$ 25.00**	**$875**	**37.33**	**$32,663**
Seasonal Part-Time FF/EMT	**35**	**$ 23.00**	**$805**	**37.33**	**$30,050**

Option 4 would cause the department to unstaff a station whenever an ambulance was committed to a call. This would significantly reduce the service to the community. It has the potential, however, to increase funding by around $130k for additional NFD programs.

Table 13: Cost of each proposed staffing model

	5 Yr Est. Net Revenue	Staffing Cost	Annual (Loss)/Overage
Staffing Option 1	**$ 130,733**	**$ 359,234**	**$ (228,501)**
Staffing Option 2	**$ 130,733**	**$ 188,683**	**$ (57,950)**
Staffing Option 3	**$ 130,733**	**$ 125,429**	**$ 5,304**
Staffing Option 4	**$ 130,733**	**$ -**	**$ 130,733**

The most significant threat to the community of Northstar is from a wildfire. Summer is the high season for a wildfire threat. During the summer, NFD currently staffs two fire engines with a minimum of two full-time personnel and one seasonal firefighter (3 personnel). If NFD offered ambulance service under staffing options 2 or 3, an additional two personnel would be available 90% of the time between the hours of 0900 to 1900. This is the time of day when most wildfires start. Hence, during the period of highest risk, a minimum of eight personnel would staff the District. The other 10% of the time, the personnel would be transporting/responding to EMS calls. For reference, Cal Fire and the United States Forest Service staff their fire engines with four personnel. When more personnel are available for the initial attack of a wildfire, there is a higher likelihood it will be stopped before it becomes an out of control conflagration, as seen in the last few years in California. Since most wildfires occur during daylight hours, these proposed staffing models would provide additional staffing during the most vulnerable times.

During the winter months, the wildfire threat is significantly reduced. The number of visitors and, therefore, the call volume increases dramatically. Staffing Options 1, 2, and 3 all provided additional staffing during the 0900 to 1900 during winter months when the majority of calls occur.

SWOT

The previous study used a Strengths, Weakness, Opportunities, and Threats (SWOT) analysis for the current position regarding NFD providing ambulance transport service. Following that model, here is a brief breakdown:

Strengths:
Personal customer service (ambulance transport would increase this strength)
Increased staffing during most times of wildfire danger (all staffing models except option 4)

Weakness:
Decreased staffing (depending on what staffing model is chosen) during ambulance commitment times

Opportunities:
Income from providing ambulance transports
Continuity of care (same medic from initial contact to the hospital)
Increased staffing 90% of the time from 0900 to 1900 during peak risk times
Control of ambulance availability to the community

Threats:
Potential for ski patrol to start providing ALS care (ski patrol paramedics could begin transferring patients directly to an ambulance if NFD does not provide ambulance transport)
Unknown increase in costs for providing ambulance transport services
Unknown decrease in revenue for providing ambulance transports services, especially in light of the COVID-19 pandemic
Increased periods of ambulance demand diminishing service to Northstar

What Has Changed Since the Last Study

Chief Shadowens stated in the last study:

> When considering the need to add two additional firefighters to increase staffing, adding seasonal firefighters, the cost for equipment, annual expenses, and maintenance, the revenue will not support adding the program. With careful planning, the District could put aside the $396,000 for the initial equipment purchases while simultaneously allowing tax revenues from new development over the next several years to increase. This increased tax revenue would pay for the two full-time firefighters allowing ambulance revenues to pay for the replacement of equipment, annual expenses, and seasonal firefighters. With this approach, the financial picture looks a little better, and the District could, in fact, support providing ambulance service.

Since that study, the NFD has increased the number of seasonal firefighters, but not the full-time staff. The District has allocated a one-time contribution of $50,000 toward the project in the Capital Replacement Plan. Tax revenues have increased, but not enough to add additional full-time personnel. Two Seasonal Defensible Space Inspectors and one Seasonal Forestry Assistant were added to reduce the threat of wildfire to the community.

Research Questions Answered

In a summary format, these are the answers to the research questions:

a) Is the cost of providing ambulance service fiscally sustainable? It depends on the proposed staffing model chosen. Options 1 and 2 would require cuts to current programs to subsidize the program. Options 3 and 4 would add revenue, but at staffing levels below the current level during ambulance commitment times. Another critical issue that lacks historical data for reference is the current pandemic. Revenue is dependent on the annual number of visitors/skiers. The COVID-19 pandemic could have a significant impact on this. If the ski resort does not open or opens at a reduced capacity, ambulance transport would be severely impacted. The resort accounts for 69.91% of all ambulance transports. It is essential to note the amount of revenue brought in directly offsets some of the costs of the program. As shown in Table 10, the amount of revenue varies widely from year to year as it is. A decrease of 69.91% would require significant cuts to other NFD programs for staffing options 1, 2, and 3. In addition, revenue has seen an overall downward trend over the last ten years. This trend could continue to reduce the number of transports in the future.

b) Is the current ambulance transport service provided by outside agencies sufficient? Or, would NFD ambulance transports improve patient outcomes? Since TFPD's staffing at Station 96 increased to four personnel, NFD has seen a reduction in the amount of time it takes for an ambulance to arrive at scene. The staffing at Station 96, however, is under the direct control of TFPD. The author believes as long as the staffing at Station 96 remains the same, and call volume for all local fire agencies (NFD, TFPD, NTFPD, and SVFD), remains relatively stable, a change in the agency providing ambulance service would not improve patient outcomes.

c) Would NFD providing ambulance transport services improve personalized service, and if so, is it worth the cost when balanced with other District financial needs? I do believe NFD providing ambulance transport services would improve the personalized service to the patients. This is due to the continuity of care, the direct control NFD would have over all aspects of the operation, and the strong community culture in the organization. It is the author's opinion, that it is not worth the cost in terms of cuts to other programs or reduced staffing depending on the staffing model option chosen.

Recommendations

In offering recommendations, I need to go back to the mission of the Northstar Fire Department:
To enhance the quality of life for community members and visitors through community risk reduction, aggressive response, strong mutual aid agreements, and personalized service for any type of incident.

If NFD were to provide ambulance service, it would require an initial capital investment of $131k to cover the startup costs. I do believe NFD providing ambulance service has the potential to provide more personalized service to community members and visitors, it does so, however, at a cost to other department programs such as community risk reduction or staffing. Staffing model Option 1 would require cuts to other programs in the amount of $228k, which is not feasible. Option 4 reduces the staffing levels to unacceptable levels. That leaves options 2 and 3. Option 2 would require annual cuts to other programs in the amount of $57k. Option 3 is basically a break-even option but has reduced staffing at times. The effect of the COVID-19 pandemic could result in a significant reduction in revenue. This could be as high as $90k a year, which would require cuts to other programs.

It is essential to reiterate the most significant threat to the community is a wildfire. If the District had additional funds to spend, it should go towards preventing a wildfire. This is in light of the fact that patient outcomes would not be affected by NFD providing patient transport services in the current environment.

My recommendation, at this time, is to continue to have TFPD and NTFPD provide ambulances transport services for the community of Northstar. It is recommended this study be repeated within five years to determine if the economy, community, TFPD staffing, NTFPD staffing, NFD staffing, or department changes justify a different decision. Funds for the possibility of future ambulance service should be set aside in the Capital Improvement Plan to help offset the initial costs. An annual contribution of $50k to $75k is reasonable to accomplish this goal.

If any of the following changes, NFD should re-evaluate whether or not to add ambulance transport services sooner:

1. Tax revenue increases enough to add two full-time firefighter/paramedics
2. An increase in the average response time of ambulances to NFD calls. Typical reasons include:
    a. Decreased staffing at TFPD Station 96
    b. Decreased staffing at NTFPD Station 52
    c. Increased call volume for NFD
    d. Increased call volume for TFPD or NTFPD
3. Northstar property owners or visitors begin receiving care that is not up to the high NFD standards.

Addendum

Addendum A-SSVAmbulance Service Provider Application Process

Addendum C

Sierra – Sacramento Valley EMS Agency Program Policy **EMS Service Provider Permit** Effective: 01/01/2020 Next Review: 09/2021 **410** Approval: Troy M. Falck, MD – Medical Director SIGNATURE ON FILE Approval: Victoria Pinette – Executive Director SIGNATURE ON FILE

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PURPOSE:
To establish the criteria for when an EMS Service Provider Permit is required, the process for obtaining a permit, and the grounds for permit denial, suspension, or revocation.
AUTHORITY:
A. HSC, Division 2.5, § 1797, et seq.

B. CCR, Title 22, Division 6, Chapter 8, § 87465 and 87469.

C. CCR, Title 22, Division 9, Chapter's 2, 3, 4, 8 & 12.

D. CCR, Title 13, § 1100 et seq.

POLICY:
A. A permit is required to provide any of the following EMS services within the S-SV EMS jurisdictional region:

1. BLS, LALS, ALS and/or CCT ground ambulance transport services.

2. LALS and/or ALS non-transport services.

3. EMS aircraft services.

4. BLS, LALS and/or ALS special event/standby services.

B. Permits are issued on a temporary or annual basis as follows:

1. Temporary permits are only issued for BLS special event/standby services.

2. An annual permit is required for all other types of EMS services. Annual permit holders may also provide BLS special event/standby services without obtaining a temporary permit.

C. BLS non-transport public safety agencies, organizations that have an exclusive operating agreement (EOA) with S-SV EMS, and EMS services provided as a result of an automatic or mutual aid request are exempt from the permit requirement.

PROCEDURE:
A. Temporary EMS Service Provider Permit:

1. Permit applications may be obtained from S-SV EMS. Completed applications, including all required supporting documentation, shall be submitted to S-SV EMS at least seven (7) working days prior to the event. Incomplete applications will not be processed.

2. Approved permit holders shall ensure that all personnel providing BLS special event/standby services have appropriate credentials and training to provide such services. This training shall include instructions to immediately call 9-1-1 and request an S-SV EMS authorized emergency transport provider if EMS transportation is necessary.

3. Approved permit holders shall have all necessary medical equipment and supplies available on site to provide BLS patient assessment and treatment.

B. Annual EMS Service Provider Permit:

1. Permit applications may be obtained from S-SV EMS. Completed applications, including all required supporting documentation, shall be submitted to S-SV EMS. Incomplete applications will not be processed. Completed applications will be processed within 30 calendar days of submission.

2. Permit holders shall submit a completed renewal application, including all required supporting documentation, to S-SV EMS on an annual basis. Renewal applications will be provided at least 30 calendar days prior to the application due date.

3. Upon receipt of a completed permit application, S-SV EMS will do the following:

- • Perform a review of the application and all supporting documentation.
- • Perform a background investigation of applicant (if required).
- • Review the application and proposed services for compliance with State law, regulations and S-SV EMS requirements.
- Perform an inspection of vehicles and/or stations (as applicable) to verify compliance with S-SV EMS requirements. ○ Initial applicant inspections are required prior to service implementation.
  ○ Renewal applicant inspections will occur annually.

- Issue an EMS Service Provider Permit if all requirements are met and there are no grounds for denial, or issue a written notice of permit denial if applicable.

- C. Denial, Suspension, or Revocation of an S-SV EMS Service Provider Permit:

1. A determination by S-SV EMS that an applicant or permit holder meets any of the following conditions may result in denial, suspension, or revocation of an EMS Service Provider Permit:

- • Failure to provide a complete application.
- • The applicant proposes to operate a service within an area where another organization has been granted an EOA to provide such service.
- • The applicant has previously had an application, permit, or agreement denied, suspended, or revoked, and the status of such denial, suspension, or revocation directly affects their present ability to provide adequate services.
- • The applicant/permit holder has a criminal record which reasonably indicates they would be unlikely to fulfill the responsibilities of providing such services.
- • There is reasonable cause to believe that the applicant/permit holder will not provide services in a manner that will promote the health and welfare of individuals within the S-SV EMS region.
- • Failure to comply with applicable State laws, regulations and/or S-SV EMS requirements.
- • The applicant/permit holder does not have the required medical equipment/ supplies for their units.
- • Failure to maintain required performance standards.
- • Failure to pay required permit and/or monitoring fees.
- • The applicant/permit holder or their personnel exhibit unprofessional conduct.

2. If an EMS Service Provider Permit is denied, S-SV EMS will provide written notice of the reason for denial, and specific recommendations to fulfill compliance requirements (if any) within 30 calendar days of receiving a completed application.

- • If a public safety agency's permit application to provide LALS and/or ALS service is not timely approved or is denied, an appeal shall be conducted in conformance with the administrative adjudication proceedings set forth in Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the California Government Code. A final decision rendered pursuant to this appeal may be further appealed to a court of competent jurisdiction.
- • If a private provider's EMS service provider permit application is not timely approved or is denied, an appeal may be made to the S-SV EMS JPA Governing Board of Directors. The decision rendered by the S-SV EMS JPA Governing Board of Directors shall be final.

3. If an EMS Service Provider Permit is suspended or revoked, S-SV EMS will provide written notice of the reason for the suspension or revocation. This written notice will include the effective date of such suspension or revocation and any requirements necessary to become compliant (if applicable).