Municipality of
SKAGWAY Borough

Skagway Fire Department
Audit of Fire/EMS/Rescue Services

Conducted By:

McGrath Consulting Group
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Introduction

McGrath Consulting Group, Inc. was commissioned by the Borough of Skagway to conduct an independent, non-biased professional assessment of the fire department. Specific to this request, the consultants were asked to evaluate immediate conditions and needs, areas of excellence, effectiveness, efficiency, and future resource planning.

Upon arrival in Skagway, the consultant was immediately met with a critical situation related to staffing. The Borough had received the resignation of the fire chief and one of the three full-time responders. Volunteer staffing was critically low, and the educational/certification/training of operational personnel (paid and volunteer) is minimal and not at a level conducive with providing adequate emergency response while maintaining the safety of emergency responders.

This situation required immediate attention and took precedence over all other aspects of the audit. The lead consultant immediately began working with the Borough Manager to address these challenges and to stabilize the department.

Criticality of Current Staffing Situation

The staffing situation is as follows:

- Full Time Positions:
    - The Fire Chief submitted his resignation with his last day of employment being August 15, 2021.
    - The Fleet Manager/Emergency Responder submitted his resignation with his last day of employment being August 13, 2021.
    - The Fire Inspector/Training Coordinator/Emergency Responder had made known his desire to transfer to the Skagway Police Department. His desire is to make this happen was as-soon-as-possible. His last day was October 1, 2021.
    - The Quartermaster/Maintenance Technician/Emergency Responder position is currently vacant.
    - The EMS Director has no structural level fire certifications. She does, however, hold her "Red Card" wildland firefighter certification as well as certification as a Swift Water Rescue Technician. She is also the only member holding licensure as an Emergency Medical Technician-3.
- Volunteer Positions:
    - There were ten (10) volunteers rostered within the "**Responder Track**." It is important to note, that just because a member is rostered does not mean that they are actively participating (training, attending meeting, responding to calls, etc.).
    - Five (5) of the nine volunteer responders were certified as Emergency Medical Technicians. However, only two (2) are active responders.

- Based on records provided, it appears that only one (1) member holds any firefighter certifications, and this member is not currently active.
- Based on records provided, it is unknown how many of these personnel, if any, hold any type of search and rescue certifications.
- Two (2) of these volunteers, at the time of this report, have less than 1 year of experience.

- There are two (2) volunteers operating within the "**Support Track**."
  (The Support Track involves work with committees, fundraisers, Yuletide preparations, marathon support, health fair, and school outreach activities.)

To summarize the above situation, back in early August when work on this audit started, the department had a total of eleven (11) emergency responders (paid and volunteer combined), only seven (7) of which were active; zero active members were certified firefighters; there were three (3) active Emergency Medical Technicians; and there was no fire chief.

Level of Risk/Threats and Target Hazards

Whenever evaluating an emergency service department, a critical aspect of the analysis is determining the level of risk to the community based on the threats and target hazards protected by the response agency. The Borough of Skagway, although small in population with a distinctive small-town feel, has a tremendous risk level based on the nature of the environment and its remote location in Alaska. Skagway has a greater multidisciplined emergency preparedness need than most big cities. Lack of any type of timely mutual aid assistance requires the department to be self-sufficient in handling most incidents, big or small, for the geographical region protected. All these characteristics result in numerous target hazards and service demands that bring great risk to an understaffed and undertrained fire/EMS/Rescue agency.

Primary risk levels/target hazards exist as follows:

- Skagway is the 18th most visited cruise ship destination in the world. In a busy season, this brings approximately 20,000 visitors to the Borough each day.
  - Besides the population impact on downtown shops, restaurants, and historic sites, many visitors engage in shore excursion activities such as hiking, ziplining, dogsledding, riding the White Pass & Yukon Route Railroad, tour bus sightseeing, visiting the glacier, kayaking/river floating/rafting, etc. All these excursions bring a level of increased risk with some having the potential for high-level emergency service needs.
  - The department provides patient transfer and medevac services from the cruise ships to the airport, including medevac transfers in coordination with the U.S. Coast Guard. Medevac transports occur for patients who become ill and/or injured while at sea and require evacuation from the ship's healthcare facility so they can receive more definitive care at a full-service hospital. The fire department plays a critical role in this essential health care delivery model.

    - Although the cruise ships have personnel trained in shipboard firefighting and basic rescue, the department should expect that, in the event of a major fire or technical rescue situation involving a ship or the immediate dock area, the department will be called and expected to operate.
- Emergency Medical Services
    - The department is the primary responder providing emergency patient care to residents and visitors of Skagway, Dyea, and the surrounding area.
    - The department provides staff and ambulances to conduct patient transfers from cruise ship infirmaries, transfers from the clinic to medevacs, and in some cases long distance transfers of critical patients from the clinic to Whitehorse.
    - The department responds to and aids clinic staff as needed (i.e., CPR).
    - Other services include but are not limited to:
        - Public Service: Transfer of deceased
        - Assistance with mobility problems to scheduled clinic appointments
        - Invalid assists
- Water-Related Incidents:
    - Harbor:
        - Fires/Technical Rescues occurring outside of the cruise industry require 100% management by the department.
        - Incidents involving boat mooring and drydock storage
        - Shipping/product-handling accidents
        - Hazardous materials incidents
        - Injuries to passengers and harbor workers
    - Ocean rescue/watercraft incidents
    - Swift water rescue
    - Flooding/flash flooding/tsunami
- Airport/Heliport:
    - Airplanes – passenger and cargo
    - TEMSCO helicopters
    - Onsite Fuel Supply
- White Pass & Yukon Route Railroad
    - Railyard with repair facilities
    - Fuel storage
- Petro Marine aboveground bulk fuel storage tanks
    - Risk of product spillage
    - Proximity to both the airport and heliport
- Search and Rescue
    - Tracking
    - Injured Patient Evacuation
    - High Angle Rescue

- Rockslides
- Non-hydrant/rural water fire operations
- Wildland Urban Interface (WUI)
- Historic Downtown (Sprinklered)
- Historic/closely constructed homes and businesses (not-sprinklered)

Staffing Concerns

Considering risk level and the need for immediate and sufficient staffing, two primary areas of focus emerged:

1. Contract firefighter/medics:

   Although Skagway Fire Department would like to continue operating as a combination department, the current low number of trained members (volunteer and full-time) places the community at significant risk. To address the immediate need, the lead consultant recommended to the Borough Manager that a contractual agreement for full-time firefighter/medics from a private/non-governmental agency be sought. This agreement should be short lived with a six- (6) to twelve- (12) month contract lifespan. The contract should be renewable if needed. The focus of this contract should be to provide sufficient responders to handle the common emergencies that occur within the community. Additionally, the contract should include an individual with a significant fire service training background that can serve as the department's training officer.

   Once these temporary contract firefighter/medics are in place, department and borough leadership should immediately focus on recruitment of volunteers. They need to address issues that have caused the current volunteer ranks to dwindle while developing retention and sustainability programs for these new volunteer employees. Issues that have led to volunteer disengagement and resignations will be addressed later in this report. The contractual training officer should have as part of his/her primary duties the responsibility for training and developing the volunteer staff.

   Since the goal will eventually be to return to full-time career responders supplementing the volunteers, department and borough leadership will need to begin searching for replacement staff to fill the vacant paid positions during this contractual period. A possible source for these replacement full-time personnel may be the firefighter/medics working as part of the contract. When the contract ends, some of these personnel may be interested in remaining in Skagway and becoming employees of the department/borough.

   Investigation of contract options began immediately and are still underway at the time of this writing. At least one bid was received. This bid was extraordinarily high and generally cost prohibitive.

2. Fire Chief Vacancy:

   The department, even with contractual firefighter/medics, must have a designated fire chief/department head. In the estimation of the lead consultant, this position can be filled in one of three ways. Each of these options has both positive and negative qualities.

   Options include:

   a. Appoint the EMS Director, the remaining full-time employee, as the interim fire chief. This individual is known, respected, and a long-time member of the community who has strong family ties to Skagway. She has a drive and passion for the department and the borough and appears ready to work hard to rebuild the department. She has excellent administrative skills and a strong educational background in Emergency Medical Services. Her clear drawback is the lack of fireground operational training along with tactical incident command experience. If she is to be considered as the permanent fire chief, a formalized educational development plan and mentoring program will need to be developed and implemented.
   b. Recruit and hire a temporary, contractual interim fire chief to lead the department while simultaneously working to develop and prepare the EMS Director for the position of fire chief. The challenge with this option is finding such an individual. A candidate for this role would need to have a strong background in operations (Fire, EMS, Rescue, Mountain Search and Rescue, Harbor Fire & Rescue Operations, Aircraft Fire and Rescue), chief administrative officer skills, training/one-on-one mentoring, and volunteer recruitment and retention acumen. Finding such a candidate who is available and willing to accept a short-term contract with the Borough will likely be very challenging.
   c. Conduct a national search and work to hire an outside fire chief. In most situations this would be the easy solution and the one most appropriate to address the needs of the Borough. The challenge is that Skagway can be a difficult place to live due to its remoteness, small town atmosphere, and challenges associated with Seasonal Affective Disorder (SAD). Skagway has a history of hiring strong candidates for various positions who have short tenures due to the challenges of living in the environment. Although a suitable candidate may be found, a short tenure could prove disastrous as the department works to rebuild. In the opinion of the lead consultant, a steady long-term leader is needed to get the department back on track and then set a vision for the future.

At the time of this writing, Manager Ryan has appointed the EMS Director as the interim fire chief.

Scope of Study Objectives

Beyond the immediate needs detailed above, the lead consultant evaluated and has provided an analysis of several additional "objective" areas. To conduct this analysis the lead consultant spent six (6) consecutive days in the Borough interviewing more than twenty people, touring the response area, and

evaluating the apparatus, equipment, facilities and level of risk/threats and target hazards. Countless phone calls and emails have been exchanged to obtain and clarify needed information. The lead consultant provided regular ongoing assistance to the borough manager, his administrative team, and the interim fire chief to address the most pressing and immediate department needs. Dr. Victoria McGrath worked through the Borough Manager's Office to conduct an analysis of human resource matters within the department. Department and Borough leadership provided records and various data reports as requested by the consulting team. Areas/categories evaluated are broadly described as follows:

- Department Overview
- Department Operations
- National Standards Comparison
- Communication/PSAP/Dispatching
- Staffing
- Personnel Management
- Facility
- Apparatus/Vehicles/Equipment
- Training/Certifications
- Mutual Aid / Automatic Aid
- Life Safety Services (Fire Prevention/Safety Education)
- Fiscal/Capital Analysis

Support of Borough and Department Personnel

The lead consultant was provided exceptional service and cooperation in all aspects of the study. The coordination, support, hospitality, and willingness to meet, along with open and honest communication, was nothing short of exceptional. The lead consultant greatly appreciates the leadership of Borough Manager Brad Ryan and Interim Fire Chief Emily Rauscher, along with Mayor Andrew Cremata, Public Safety Chair Sam Bass, Deputy Manager Emily Deach, Assistant to the Manager Michelle Gihl. The openness of the paid and volunteer members of Skagway Fire Department and their willingness to help has also been invaluable.

Snapshot in Time

It is important for the reader to understand that a study of this nature is a snapshot in time, and findings are based on the assessment of the Department during site visits and material/data provided by the Borough and the Fire Department. Due to the dynamic nature of the department's needs and the fact that changes are already underway to address immediate challenges, this written report may not fully account for changes that have occurred during the study period that impact the overall situation.

Consulting Team

The recommendations made within this report are based on the best quantitative data discovered and qualitative observations by the Consulting Team, who have spent years in either fire, EMS, emergency services, human resources, emergency management, or an aspect related to those endeavors.

Three consultants participated in the study. Each addressed topics that were appropriate to their specific skills and expertise:

- Dr. Tim McGrath, CEO McGrath Consulting Group
    - Project Manager
    - 33 years Fire/EMS (paramedic) experience
- Chief Craig A. Haigh, Senior Consultant
    - Lead Consultant
    - 37 years Fire/EMS (paramedic) /Emergency Management experience
- Dr. Victoria McGrath, CEO McGrath Human Resources Group

Recommendation Priority Hierarchy

Within each studied "objective" area the consulting team has highlighted recommendations using a priority hierarchy system. This system will rank recommendations from **Priority 1 – Urgent/Immediate Need** down through **Priority 5 – Information Only**. This system will allow Borough and Department leadership to prioritize the work needing to be done by easily identifying most critical areas. Lesser pressing issues can be addressed through planning and be managed over time. The following chart defines the overall numerical rating system:

Table 1: Recommendation Priority Hierarchy

Priority	Definition	Example
1	**Urgent/Immediate**	Potential threat to life, legal and/or regulatory compliance violations; physiological needs; essential preventative action needed
2	**Pressing < Priority 1**	Significant impact on organization; action needed as soon as possible
3	**Important < Priority 2**	Organization will benefit by addressing soon; items that should be accomplished
4	**Future Consideration**	Items need to be addressed; develop future plan of action; low consequences of delay-action
5	**Information Only**	Organization should be aware; take under consideration

RECOMMENDATIONS – IMMEDIATE NEEDS

- *Investigate and, if feasible, enter into a contractual agreement for full-time firefighter/medics from a private/non-governmental agency. This agreement should be temporary with a focus on providing sufficient responders to handle emergency calls. The contract should also include an individual with a significant fire service training background that can serve as the department's training officer.* ***Priority 1***
- *Initiate an aggressive volunteer recruitment campaign and begin onboarding new members. The contractual training officer should have as part of his/her primary duties the responsibility for training and developing the volunteer staff.* ***Priority 1***
- *Begin a recruitment/search process for replacement of full-time personnel. All new full-time personnel should be dual-role/cross-trained firefighter/medics.* ***Priority 1***
- *Hire and appoint an interim fire chief while simultaneously conducting a search and developing a long-term plan for filling this department head position.* ***Priority 1***

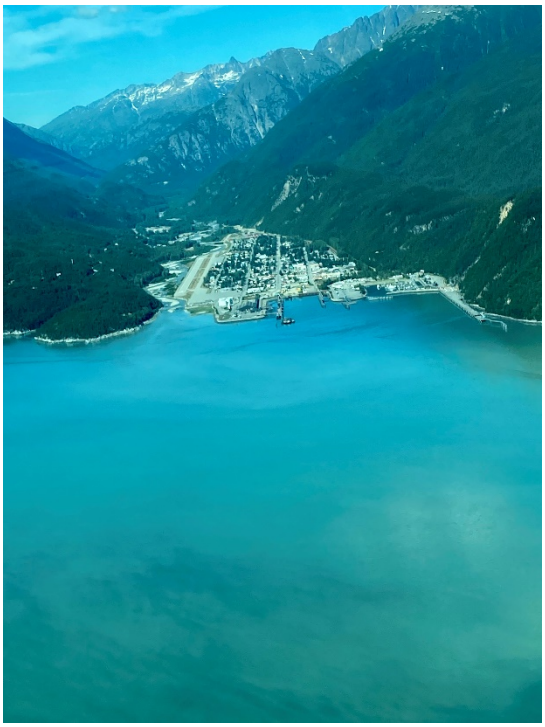
Data Request

Attached as Appendix A is a listing of the data requested by the consulting team prior to the first site visit.

Governance/Department Overview

History of Skagway and Dyea Valley

Figure 1: View of Skagway from Sea



The Municipality of Skagway is a Gold Rush era community established in 1897. It holds the distinction of being the first city ever incorporated in the State of Alaska (Incorporation Date: June 28, 1900). In 2007, the community was incorporated as a first-class borough. It is located in the Upper Lynn Canal of the Inside Passage in Southeast Alaska near British Columbia and Canada's Yukon Territory. It is 103 air miles north of Juneau and 110 road miles from Whitehorse, Yukon.

The borough maintains a vibrant historic district that drives and supports the vast tourism of the area. The district consists of numerous original Gold Rush era commercial buildings. Many of these building date back to the late 1800s and early 1900s. Much of this area has been designated as the Skagway Unit of the Klondike Gold Rush National Historical Park which hosts over 1-million visitors annually. Skagway has an approximate year-round population of 1,100 with summertime numbers swelling to 3,000 due to seasonal workers moving to Skagway to support the tourism industry.

Figure 2: Historic Downtown Skagway

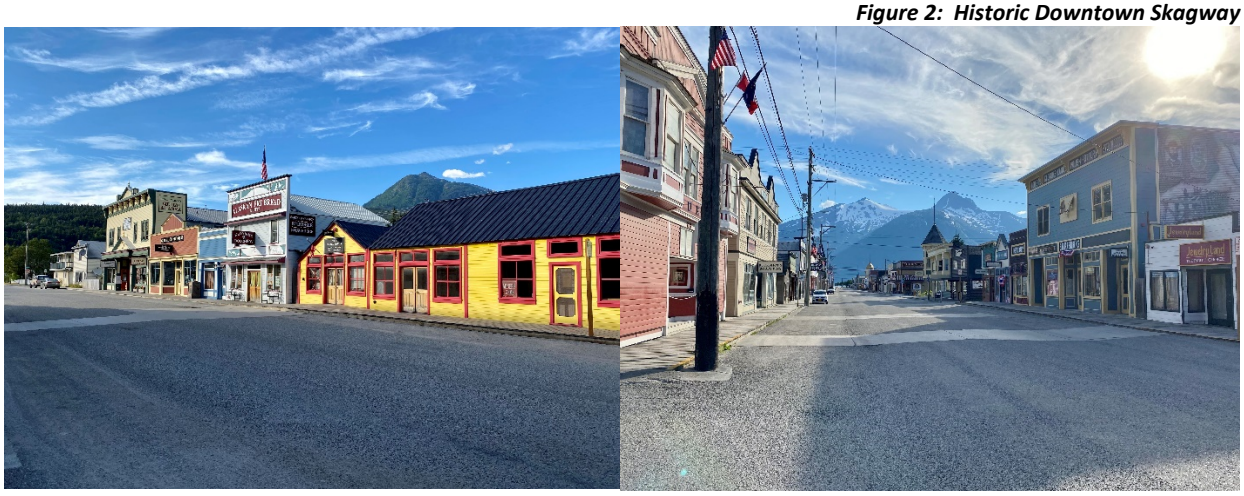
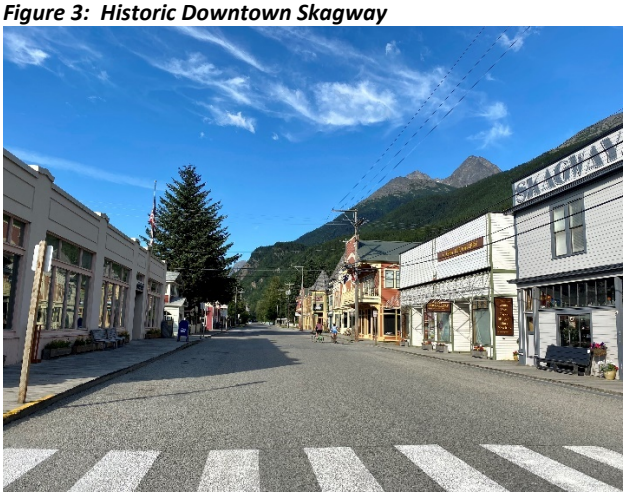


Figure 3: Historic Downtown Skagway



Skagway is often referred to as the Gateway to the Klondike. It became the kick-off point for the 1897 gold rush to the Klondike Gold Fields. Prospectors arrived in Skagway and then traveled the challenging Chilkoot Trail into the Yukon Territory where they began their search for gold. Visitors today continue to travel to Skagway to hike this historic trail.

Figure 4: Cruise Ship in Skagway Harbor

By far the greatest number of visitors arrive in Skagway via the cruise industry. These massive ships, arriving during the summer season, bring as many as 20,000 visitors a day to the area.

Figure 5: Campground Host Cabin in Dyea

The community also includes three (3) RV campgrounds and cabin areas in historic Skagway and Dyea that host travelers who drive the Klondike Highway. These RV parks/campgrounds routinely operate with waiting lists for available camp sites.

The unincorporated community of Dyea is located within the borough to the northwest of Skagway and protected by the Skagway Fire Department, lies at the foot of the Chilkoot Trail. It is connected to Skagway by an 8-mile-long coastal road and has become a favorite recreation area for residents and visitors. It is inhabited by several year-round residents who live in cabins, houses, and yurts. Much of the area has been designated as the Dyea-Chilkoot Unit of the Klondike Gold Rush National Historic Park.

Figure 6: Dyea Flats

Dyea, as a community, is older than Skagway and was established several centuries ago as a summer camp by the Tlingit Natives. Dyea saw a boom in the late 1800s and rose to a population estimated to be around 10,000. However, it quickly became a ghost town following an avalanche on the Chilkoot Trail that killed more than 60 gold rush stampeders. Also contributing to the end of the Dyea community was the construction of the White Pass & Yukon Route Railroad. At the time, Dyea had its own tramline and planned to build a future railroad. The White Pass & Yukon Route purchased the tram in 1899, shut it down, and halted plans for the railroad. These two crucial events caused business owners to close up shop and flock to Skagway. Just three years later the remaining estimated population of Dyea was just six people. **Source: 2021 Official Visitor Guide – Skagway Alaska (skagway.com)**

Figure 7: Map of Skagway

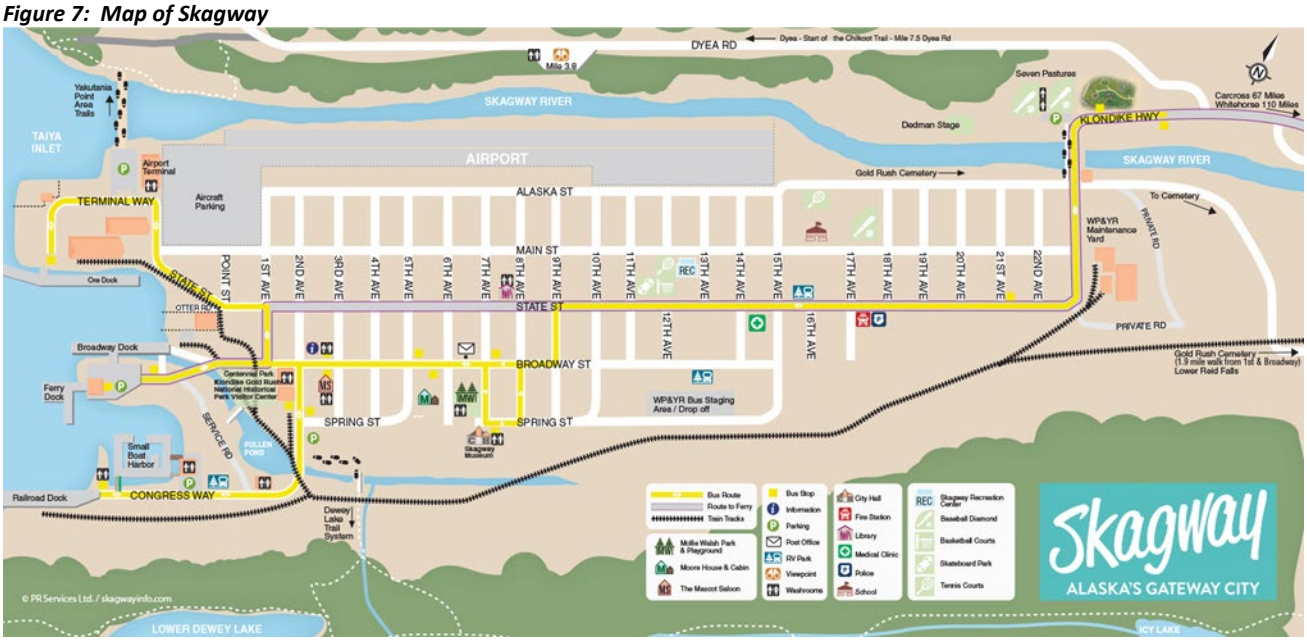
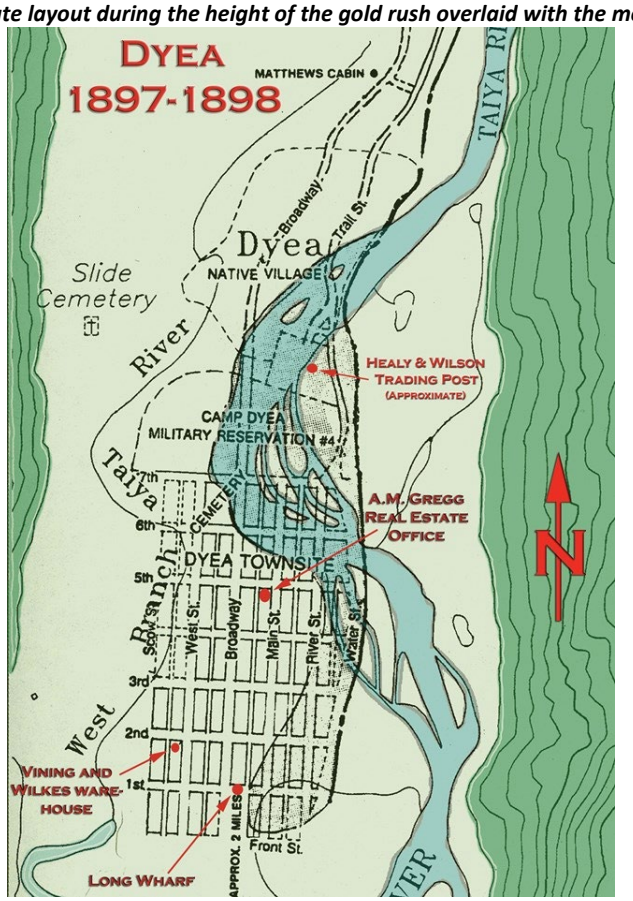


Figure 8: Dyea's approximate layout during the height of the gold rush overlaid with the modern location of the river.



History of Skagway Fire Department

In early 1898, after a series of fires ravaged the community, a group of concerned residents came together to form the Skagway Volunteer Fire Department. Two companies were initially formed, Hose Company No. 1 and Hose Company No. 2. Both operated within the governance of a single department yet responded from separate fire halls and held separate fund-raising events to support their individual operations.

Hose Company No. 1 operated from a single stall building with a hose tower capped with a large fire bell.

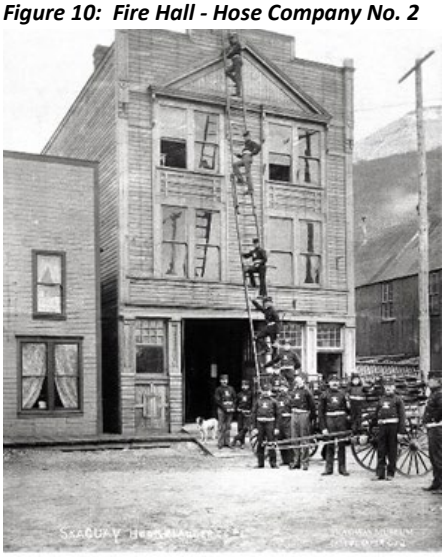
Figure 9: Fire Hall - Hose Company No. 1

Title: Skagway Fire House No. 1, 6th Avenue, Skagway, Alaska

Hose Company No. 2, and the soon to be established Hook and Ladder Company No. 1, constructed a three-story fire hall. This new fire hall included the apparatus bay, offices, and a meeting room on the first floor, a dance hall on the second, and sleeping quarters on the third.

Thanks to the efforts of a privately owned power and water company that had constructed a dam creating Lower Dewey Reservoir, the town was now supplied with water using wood-stave water mains complete with hydrants.

Figure 10: Fire Hall - Hose Company No. 2



Title: Skaguay Hook & Ladder Co. #1, c. 1900, Skagway, Alaska
Credit: Skagway Museum

Figure 11: Skagway Fire Department, Circa 1900

Title: Skaguay Firemen. Hook & Ladder Co. #1 & Hose Co. #1 & #2, c. 1900, Skagway, Alaska
Credit: Skagway Museum

When the City of Skagway incorporated in June of 1900, one of the requirements was that the city have an established fire department. During the first meeting of the new municipality, an ordinance was passed creating the Skagway Volunteer Fire Department and appointing Frank Lowe as the city's first fire chief.

At the time of incorporation, the department had grown to a roster of sixty members and operated two hose carts, a light wagon, and a hook and ladder equipped with a 45-foot main ariel. A third fire hall was opened in 1908 at 22nd and State Street, creating Hose Company No. 3.

During the Second World War, the U.S. Army moved into Skagway bringing service men responsible for building the Alcan Highway and the extensive Canol Oil Pipeline ("Canadian Oil"). The pipeline was designed to provide essential gasoline, and later aviation fuel, needed to protect the western coast of the U.S. from enemy attack. The pipeline extended from Skagway to Fairbanks and operated until 1958. This influx of military personnel placed a huge demand on the volunteer fire department. Fires increased while volunteer personnel were very limited since most of Skagway's young men were now serving in the armed forces. Due to this challenge, the city arranged for the Army Fire Department to take over the volunteer department and begin providing 24-hour paid staffing. When the Army moved out in 1944, the city purchased the Army's Fire Hall and one of their engines. They then returned to volunteer staffing.

The department hit another staffing challenge in 1966 when volunteer membership seriously declined. The department reorganized and implemented a program where high-quality professional training was offered to the members. These two actions worked to again stabilize the volunteer workforce and contributed to the department receiving an ISO Class 5 rating in 1973.

The department's venture into EMS began in 1961 when it purchased a used 1952 Pontiac ambulance. As the years passed, the department continued making upgrades to this aspect of the department including EMT training as required and approved under the Department of Health and Social Services, Section of Community Health & EMS.

Figure 12: Skagway Ambulance

Figure 13: Skagway EMS Providers Training

The department now operates three ambulances and provides care up to the Emergency Medical Technician - 3 (EMT-3) level. Medical direction is provided by Dr. Jodie Totten and her proxy, the Bartlett Regional Hospital Emergency Room in Juneau, AK.

Under the EMT-3 standards, trained personnel can provide enhanced cardiac care skills including the addition of administering morphine, lidocaine, atropine, and epinephrine, all of which are important in treating and stabilizing a patient experiencing a sudden cardiac event.

Figure 14: Skagway FD doing Medevac

The department also provides Medevac transfer services from cruise ship infirmaries to the airport for fixed-wing transports to regional hospitals as well as patient transfers from Dahl Medical Clinic. The department does transfers for the U.S. Coast Guard helicopters as well. Long distance ambulance transfers are conducted by department personnel when needed to Whitehorse General Hospital in Carcross, Yukon, Canada.

The department currently covers a total response district of 464 square miles, including a significant amount of the Inside Passage Waterway. The department operates from a single public safety facility. The facility houses the fire hall, police department, jail/holding facility, dispatch, and a veterinary clinic. The department's administrative offices are included in this facility along with response equipment storage/apparatus bay, firefighter housing and an apparatus maintenance facility.

Figure 15: Current Fire Hall

The department also operates a training facility with live burn capabilities. Included at the training site is an ingenious rural water holding facility that is used to supply water for both the training site as well as operations in the Dyea area. The training site is equipped with anchor points for rope rescue training as well as props built into the "training cans" that simulate a variety of scenarios faced by Skagway firefighters.

Figure 16: Training Site

Figure 18: Water Supply Station

Figure 17: Swift Water Training

Including fire and emergency medical services, the department also provides a vast array of search and rescue services including water rescue, high-angle, hiker tracking and recovery, as well as aircraft firefighting services for both the Skagway Regional Airport and the Temsco Heliport. In the past, the department has been recognized for its exceptional skill in search and rescue operations.

Figure 19: Search and Rescue

Source: ***Skagway Volunteer Fire Department Dates Back to Days of '98,*** **Skagway, Alaska – City of the New Century, C.E. Mulvihill, p. 218 – 220.**

Fire Department Core Values, Mission, Vision, Organizational Priorities

Every organization has guiding values. Values identify who we are and what we hold precious and can be thought of as our internal decision-making reference book. An organization's values may or may not be written down and formally designated as the organizations guiding principles, but the fact remains that every organization has guiding values.

In reality, organizational values are based on the values of the people who work within an organization. Each employee brings their own set of personal values to the workplace. These values reflect their individual needs, desires, and things they care about most in life. Values drive our personal character, which impacts how we behave, work, and react to stressful situations.

Working in an organization with other team members who also have a defined set of values sometimes creates conflicts. These conflicts can impact working relationships and performance. To effectively work with other team members, one must have a base knowledge of their team members' values and be willing to compromise to the point of finding shared values that the team can use as a foundation on which to build and operate. To effectively lead an organization, leaders must understand the values of their people and how they impact the overall team. They can then translate these into guiding principles for management of the organization.

Included in both the Fire – Standing Operating Guidelines and the EMS – Standing Operating Guidelines are statements related to the core values of the department. The former fire chief also provided these to the Lead Consultant as part of a handful of initial pages being worked on related to a strategic planning document. Reportedly the strategic planning document is/was under development. The documents also included statements related to Mission, Vision, and Organizational Priorities.

Core Values to live by: TIPPS

<u>Teamwork</u> – Teamwork is the core value that enables us, as firefighters, to respond to a person's worst day in an organized, competent, and compassionate manner. The whole is truly greater than the parts. We train as a team, respond as a team, work as a team, and in some cases, live together. To be truly integrated we must have complete trust in those with whom we serve. Almost all can physically do this job, but this job in not for all.

<u>Integrity</u> – Integrity is adherence to moral and ethical principles, soundness of moral character and honesty. Simply stated, integrity is doing the right thing, at all times, for the right reasons. Integrity is what allows the public to give us complete access to their homes, cars, and loved ones, without hesitation. Our word and our action are our bonds.

<u>Professionalism</u> – Professionalism is many things. One may be viewed as being professional if he/she has a clean, pressed uniform and shiny boots. This may be one aspect but is far from the complete answer. A more complete answer is a person who can be depended upon to do the

required task without hesitation in an expert manner. This includes all aspects of our job and requires constant training, attention to detail and the ability to overcome adverse situations as needed.

Positive Attitude – Positive attitude is the spirit of the fire service. If one does not have a "can do" attitude and a willingness to learn, teach and mentor others through their actions and deeds, they should not consider this calling.

Service – Service is the attitude of wanting to help others in a professional manner. It includes empathy, a commitment of finishing a task, the decision of wanting to help the community and all its people at any given time or place regardless of prior plans.

Your commitment to Skagway Fire is a commitment to another family, our family. This calling requires time away from your family, friends, and previous commitments with little pay. However, the effort that a person gives is amplified by the reward of serving with a great team. Thank you for being part of Skagway Fire's team.

Vision

Committed to providing extraordinary service through prevention, preparedness, and emergency response to our community.

Mission

The men and women of the Skagway Fire Department strive to exceed expectations at all times.

Core Values

Internal – We, the men and women of the Skagway Fire Department, continually strive to be highly trained and educated, present solutions, and hold ourselves and each other accountable to the highest standards.
External – We, the men and women of the Skagway Fire Department, are competent professionals who routinely go above and beyond, exercising respect and dependability at all times.

Organizational Priorities

Service – Deliver the highest levels of service to the community and our personnel.
Safety – Aggressively provide for the safety of the community and our personnel.
Readiness – Ensure that the department is prepared to meet the needs of the community.
Empowerment – All personnel have a voice and ownership in the Department's strategic direction.

It appears that much of the information contained in the above statements was borrowed from the Cosumnes CSD Fire Department, Elk Grove, California. Although acceptable to borrow and share information between various fire and emergency service agencies, it is imperative that the vision, mission, and values statements are truly reflective of the Skagway Fire Department and its membership.

The section titled TIPPS may be original to Skagway Fire Department, but since it was included with the rest of the statements, the origin of the statements cannot be validated by the consultant.

As the department moves into a rebuilding phase, an analysis should be completed related to these guiding organizational values/principles and new/updated statements drafted specific to Skagway. This process may be best accomplished as part of an overall strategic planning process.

Strategic Planning

Strategic planning helps an organization to frame what it is, what it does, and how it will accomplish its mission in the future. It helps to identify the vision and provides guidance and direction in choosing the right path for future success. It does not deal with decisions made in the future, but decisions made today that will affect the future. It revolves around five fundamental questions:

1. What is our current situation?
2. Where are we going?
3. How do we get there?
4. What is our blueprint for action?
5. How do we know if we are on track?

One cannot effectively manage an organization by being reactive or running from one crisis or event to the next. To create excellence, one must be proactive and deliberate in decision making and actions.

Additionally, an effective strategic plan is used daily. It drives the decisions of the organization and becomes a living document as plans are implemented, adjusted, and realigned to meet the mission and values of the organization.

Although it appears that steps were being taken to develop a strategic plan, no such document was completed. The department could greatly benefit for the exercises involved in a strategic planning process and the development of goals and objectives. These goals and objectives would then serve as the guiding "roadmap" for the next 3 years.

As it relates to the development of the plan, the department would likely find it helpful to use an outside facilitator to oversee the planning process and to develop the finalized written strategic planning document. The outside facilitator would be able to ask questions, challenge assumptions, and engage the critical thinking of those involved. It would also take significant pressure off department leadership,

eliminating the perceived pressure of needing to know exactly how to manage the process and needing to "know all the answers" related to overall department management.

Organizational Chart

The organizational chart of any organization is designed to detail the specific reporting authority of its workforce. This is important within a fire service paramilitary organization due to the need for significant command and control at emergency incidents. In simple terms, officers (i.e., supervisors) provide direction while firefighters and EMTs do the work. Officers set the strategy for incident mitigation, while the firefighters and EMTs execute the strategies needed for the specific tasks.

Typically, supervisory positions are approved by the governing authority (city, county, borough, district board, township, etc.) along with a commensurate job description. Related to paid personnel, promotions typically come with a change in the rate of pay to address the added responsibilities associated with the new position.

Currently within the fire department, several employees hold official supervisory titles/officer ranks with no recognition within the official hierarchy of the borough. When the lead consultant questioned the chief related to the promotional process, he was told that all promotions are "field promotions" and that the associated ranks and number of available positions have not been approved as part of the staffing ordinances of the borough.

During interviews with both paid and volunteer personnel, no one had a clear understanding of the official organizational structure of the department, how many supervisory/officer positions are authorized by the governing authority (i.e., the Municipality of Skagway) or how you get selected for promotion, nor did they understand the responsibilities of the various ranks (i.e., lieutenant, captain, battalion chief, deputy chief).

During an interview with one of the paid personnel, the individual reported that he had been promoted to captain, but that he did not want the rank because he did not feel that he had earned it. He went on to explain that he understands the testing process used by paid fire departments to promote officers. He said that he did not undergo this type of testing or scrutiny to determine that he was the best candidate for the position. He feels that he does not deserve the rank and seemed almost embarrassed by having the official title.

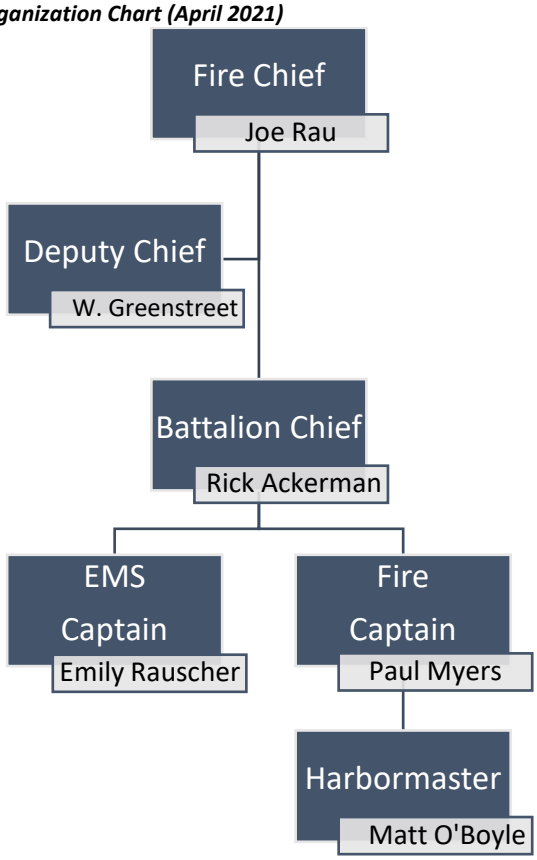
This same individual conveyed a story where a volunteer firefighter was promoted to lieutenant during a meeting. He said the individual was called forward and the fire chief announced that he was now a lieutenant. As this newly promoted and surprised lieutenant took his seat, he asked the collective group attending the meeting, "What exactly does this mean?"

Of significant concern in using this "field promotion" process is the fact that department supervisors/officers have a moral, ethical and in some cases a legal responsibility to address and manage issues. Some of these issues may arise as part of an emergency response while others occur within management of the overall workforce of the department.

It is unclear whether any of the personnel who received "field promotions" have received any training in the responsibilities associated with their supervisory positions. This is especially problematic related to mandatory reporting issues, issues of harassment, discrimination, supervisory ethics, financial ethics, and other similar employment standards that impact both paid and volunteer employees. It is the consultant's opinion that this practice results in an increased liability for the borough. It also has the strong potential to cause personal liability for errors and omission generated through a civil suit that would rest squarely on the shoulders of the "field promoted" officers. This practice of "field promotions" should cease immediately.

The current organizational structure provided by the former fire chief, which includes the "field promotions" is as follows:

Figure 20: Fire Department Organization Chart (April 2021)



Future Promotional Process

Officers/supervisors are an essential role of operating a successful emergency service organization. Based on the combination structure of Skagway Fire Department (volunteer and paid personnel), supervisory positions should include both paid and volunteer officers. A new organizational structure should be developed based on the areas of responsibility required to manage the department along with a focus on supervisory command and control. This may need to be modified from time to time as the department develops/changes. The new organizational structure should be approved by the Borough Assembly based on the recommendations of the Borough Manager and the Fire Chief.

During this initial "rebuilding phase" some officer positions may need to be filled as part of the overall hiring process (i.e., fire chief, training officer, etc.). Other officer promotions should be selected based on a minimum of the following:

- A submitted letter of interest
- An application and resume
- An interview with a committee established for the purpose of selecting these initial officer positions.

All officer positions should have a job description and a minimum skill set established for the respective position.

Once the initial promotions are made and the department has had an opportunity to stabilize, leadership should initiate an officer development program designed to train supervisory personnel in issues of organizational leadership, management, command and control, and incident strategy and tactics. After a period, these ongoing trainings should be opened to all department personnel. Those interested in becoming officers in the future would then have the ability to attend these classes, thereby initiating a succession planning process.

After this initial round of promotions, the department should move to an assessment center promotional testing process. Regardless of paid or volunteer, testing should be competitive and should be designed to test and rate the skill set of those aspiring to be promoted. The assessment center process should be based on the needs of Skagway Fire Department. Topics often evaluated during assessment center exercises include, but are not limited to:

- Tactical Simulation Exercise with a focus on Command and Control
- Problem Employee Role Play
- Instructional Training Exercise (candidate must teach a 15-minute training class to evaluators)
- In-basket Exercise
- Leaderless Group Exercise
- Panel Interview
- Written Exam

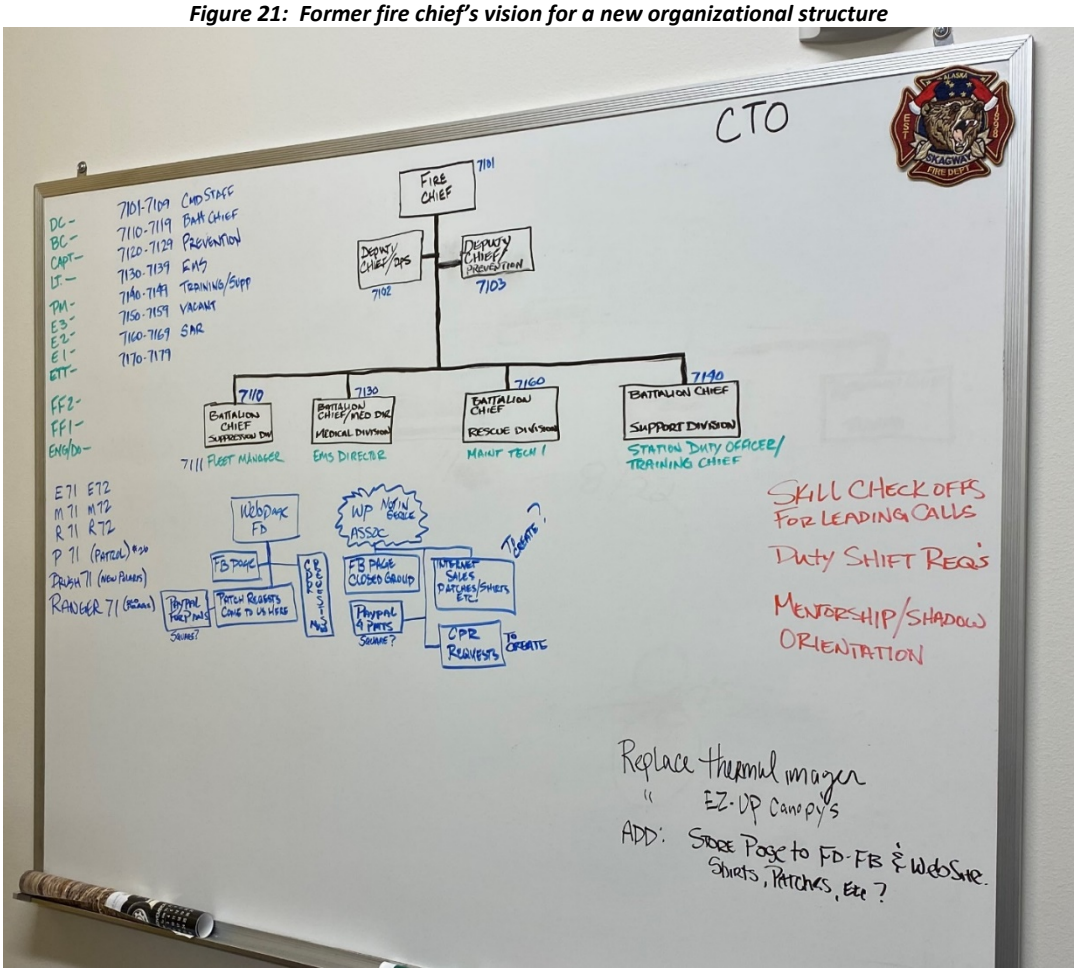
The individual components of an assessment center as listed above are just an example of those commonly used. Different components could and should be developed based on Skagway's unique needs.

Current Managerial Leadership Philosophy

Looking at the borough, the managerial leadership philosophy seems to be one of professionalism and a desire to provide needed services with excellence. The borough manager readily admits that he is not trained and experienced in all facets of fire/EMS/rescue standards and is looking for this consultant's report to provide insight on best practices and the establishment of systems to use as foundational standards for the development and management of the department. The manager, along with the mayor, and the chair of public safety all seem to be in strong agreement related to the need for excellent fire/EMS/rescue services that are appropriate and designed to meet the needs of Skagway.

When looking at fire administration, the current managerial leadership philosophy is a bit challenging to fully assess. When questioned by the lead consultant about the department vision and planned direction, the former fire chief provided limited insight into a vision for the future. He complained about the department not being at the authorized strength for paid personnel, the lack of training funds, and the spending restrictions imposed by the borough manager. He spoke about the need to increase the number of volunteer responders but had no identified plan to make this happen. He seemed to minimize the level of risk/threats and target hazards that exist in Skagway and their impact on the service needs of the department. Also minimized was the fact that the department has very few emergency responders that are qualified to operate wearing breathing apparatus inside of an IDLH atmosphere. The chief did, however, share his plan for a new/updated organizational structure.

Figure 21: Former fire chief's vision for a new organizational structure



Culture of the Organization

The culture of a fire/EMS/rescue organization dictates how services are provided and the expectations placed on the workers as well as leadership. These expectations can be formalized or perceived and are driven by the values of the individual members/employees. Those not in agreement with the formalized cultural expectations will simply find a way to work around these standards and will make decisions and perform work based on what they value and hold dear. The culture of the department is likely the single most important aspect as to how services are provided. It is also the most challenging aspect of organizational leadership to change and/or modify since it becomes ingrained in the membership and is passed from generation to generation.

When evaluating Skagway Fire Department's culture, a handful of challenging issues became evident:

1. Even though EMS makes up most of the department's call volume, it is evident that EMS is not culturally valued. Besides the EMS Director, none of the paid personnel hold an EMT license beyond EMT -1. This is surprising insomuch as the paid personnel are the primary EMS

responders, and the department has the capability to provide care at an Advanced Life Support level (EMT-3).

Additionally, when interviewing the paid employees, including the fire chief, the importance of EMS is significantly downplayed. In the case of one paid employee, he readily admitted that he is not interested in providing patient care, does not like it, and only holds an EMT-1 license because it is required.

This downplaying of EMS is also exhibited through an obvious lack of vision related to patient care standards. Outside of the EMS Director, no one interviewed saw any benefit in expanding patient care levels to paramedic, community paramedicine, and/or critical care paramedics. This is surprising since the department routinely provides critical care transports. This issue of critical care transports as well as community paramedicine will be discussed later in this report.

2. Although Skagway is a combination department (i.e., made up of both paid and volunteer responders), the clear focus appears to be on the paid personnel. The overall management philosophy is to utilize the paid staff for most of the work and to only rely on the volunteers for the larger type incidents. While the lead consultant was in Skagway working to assess the department, several responses/calls occurred in which the volunteers were never paged, and the response was handled by on-duty paid staff. This philosophy is hugely damaging to volunteer motivation since it makes them feel unneeded.

   This is evidenced by the fact that every volunteer interviewed, including some who have left the department, commented that the focus on paid personnel made them feel not needed, not wanted, and unimportant to the department. This feeling is even felt by the new members of the department. As an example, a new volunteer who appears very excited to learn and contribute said during her interview that she feels like she is "bothering" the paid personnel when she asks them to help her develop her skills so she can become cleared to respond to calls.

3. There seems to be a generalized opinion that Skagway is a "small sleepy town" with few risks/threats and target hazards. The lack of frequent major incidents seems to have lulled department members into believing that a lack of preparedness is somehow okay. This cultural issue is extremely dangerous and places the community at significant risk.

4. There is an overall cultural lack of visionary leadership. The general pervasive feeling seems to be a "this is how we have always done it" mentality. It is also obvious, discovered through interviews, that leadership and staff do not operate as students of the fire/EMS service. Personnel clearly have a limited knowledge of current standards, research, and cutting-edge topics such as community paramedicine, physiologic impact of firefighter heat stress, transitional structural fire attack, fire department's role in mitigating the wildland urban interface, etc.

Internal and External Communication

Internal

The best way to describe internal communication is "disconnected."

In interviews with the Borough Manager, the Lead Consultant found the manager astutely aware of the issues facing the organization along with many of the needs. The manager was supportive, willing to commit financial resources to the department and clearly wants to follow best practices related to serving the community. However, when talking to the fire chief about the very same issues, the fire chief's view of the direction he has been given and the perceived support of the borough manager is very different.

As an example, the manager relayed a story about the recent purchase of new breathing apparatus (SCBA). The manager explained that it has been his experience that breathing apparatus should be purchased at one time and as a bulk, so all units meet the same NFPA standard (NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services). Likewise, he understands that having multiple styles of SCBA that operate even with slight varying differences can result in a major safety concern for personnel working in an IDLH (Immediately Dangerous to Life and Health) atmosphere. He explained how he had tried to convey this to the fire chief and how the goal of upgrading the SCBA would best be accomplished with a one-time purchase.

When discussing this very same issue with the fire chief, the chief advised that the purchase was broken into smaller parts and spread over multiple budget years because the manager would not allow, and did not understand, the need to make a one-time purchase.

Another example is the borough manager restriction on training dollars. The manager advised that he has requested information from the fire chief on what type of training is required, who needs to attend, the associated costs, as well as the creation of an overall training plan for the department. He indicated that he wants to make sure he is spending taxpayer dollars wisely. The fire chief on the other hand states that the manager has cut the department's training budget and will not allow him to send personnel to trainings.

One final example is the overall focus of the organization related to services provided. The manager advises that EMS is the department's number one request for service. Although the other disciplines of fire and rescue are important, the department is primarily an EMS agency. He advised that he has directed that the department provide focused attention on this function. The fire chief has interpreted this as the only service important to the manager is EMS and that he does not care about fire and rescue.

The consequences associated with this disconnection in communication and understanding is profound. The fire chief has been clearly frustrated by his interpretation of the discussions and directives from the manager, and he has communicated this to the department's staff. Without a full understanding of both sides of the communication equation, a toxic culture has been created toward the manager by some fire

department staff. By the lead consultant's best assessment, this toxicity is misplaced and not an accurate reflection of the manager's actual position.

During interviews with department members, the number one problem identified is a lack of communication. When pushed to explain or give examples, the following consistent communication challenges were identified:

- Not knowing what is going on within the department
- Not being made aware of needs
- Not understanding and/or having someone explain why decisions are/were made
- Not receiving communication about changes yet being accountable to know them
- Not being made aware of training opportunities
- Not being made aware of service opportunities
- Not being made aware of calls

Included as a policy within the Fire – Standard Operating Guidelines is a section titled **Open Door Policy**. The policy reads as follows:

> *The Fire Chief has an "open door" policy for those employees desiring a conference. This request will be made through the proper channels.*
>
> *That being said, Officers will establish an open-door policy within their shift. Firefighters are responsible to ensure that the Officers are made aware of problems that affect discipline, morale, the mission of effectiveness; and an open-door policy allows members of the command staff and volunteers to present facts, concerns, and problems of a personal or professional nature or other issues that the firefighters have been unable to resolve.*
>
> *The timing, conduct, and specific procedures of the open-door policy are determined by the Fire Chief. Fire Chief is responsible for ensuring that Officers and Firefighters are aware of both the Officers open-door policy.*

Although an "open door policy" exists and the fire chief has directed it to be utilized throughout the organizational structure, it is apparent based on employee interviews that it is not effective and is not being utilized as designed. Also, it appears that no formalized process of communication exists where members are getting the information needed. Leadership may feel that communication is taking place, but it is evident that a disconnection in this area exists.

<u>External</u>

The Lead Consultant had limited opportunities to fully assess external communication. A few points brought up during interviews or that were observed are as follows:

- During the time spent with the former fire chief, the Chief seemed to have an excellent rapport with the townspeople. He is known and makes a point to talk with those he encounters.
- Both former volunteers and workers at the Clinic commented that they miss the "burger feeds," car washes, and other public events previously conducted by the fire department. They all indicated the importance of these events in connecting the department with the community.
- Comments were made that the fire station, in its current "locked down/secure" configuration is not inviting and does not communicate a welcoming feel that encourages visits and interaction with fire department staff.
- In an interview with one paid member, he stated that public communication is almost non-existent and that an enhanced website needs to be developed along with platforms for social media. It is unclear to the lead consultant how public safety messages are shared with residents and businesses.
- The lead consultant was advised that public education programs are conducted within the schools.

Review of Records Management

Prior to initiation of the study, McGrath Consulting Group provided the fire chief a document outlining the data required as part of the audit procedure. Attached as **Appendix A** is a listing of the data requested. It was asked, in as much as possible, that the data be compiled in an electronic format and sent to McGrath Consulting Group prior to the lead consultant's first site visit. The list utilized is a generalized listing of information compiled for all fire/EMS audits and was not specific to Skagway.

Prior to the first visit, the lead consultant had a conversation with the former fire chief who advised that the department was having problems compiling much of the data requested. No data was received prior to the first site visit.

As a generalized statement, the information/data provided was much less than requested. Much of the information asked for is readily available and is not hard to obtain. Data related to call volume breakdown as well as dispatch processing times can be challenging if not tracked, but overall, this is a small part of what was requested. Volumes of information was provided on department vehicle/apparatus, yet when the consultant began digging into the actual information provided, much of the data was incomplete, contradictory, and not useful for making an accurate assessment of the overall fleet.

Most of the information the lead consultant was eventually able to obtain came through Interim Fire Chief or other staff members at the department, city hall and police department. The lead consultant is, therefore, left to assume that the former fire chief did not have the time or placed little effort into compiling the information requested, thereby making the process much more difficult.

Based on the overall lack of information/data, the lead consultant did his best to provide an analysis of the organization. The data provided has been used in subsequent sections to provide an analysis of the

current administrative and operational aspects of the department. It is important to note that some sections may be limited in detail simply due to a lack of information provided and/or available.

RECOMMENDATIONS

- *Conduct an organizational analysis and draft language related to guiding organizational principles (mission, vision, values) specific to Skagway. This process may be best accomplished as part of an overall strategic planning process.* ***Priority 4***
- *Undergo a strategic planning process with the goal of establishing a 3-year plan. Consider using an outside facilitator to lead the process and to assist department leadership in writing the finalized plan.* ***Priority 3***
- *Immediately stop the practice of "field promotions."* ***Priority 1***
- *Develop and implement a promotional selection process for both paid and volunteer officers.* ***Priority 3***
- *Move to an assessment center promotional process in the future.* ***Priority 4***
- *Begin an officer development/educational program for both paid and volunteer officers.* ***Priority 3***
- *Immediately implement a policy in which all calls for service (emergency and non-emergency) are paged for notification to all department members.* ***Priority 1***
- *A system(s) of external communication messaging needs to be developed and implemented ASAP. These systems will play an important role in recruitment of new department members by sharing the need for new members and how residents can get involved with the fire department.* ***Priority 2***

Department Operations

Call Data

The primary mission of fire/EMS agencies is to respond to calls for assistance. Tracking these calls through a standardized reporting system allows data collection and analysis. The analysis can then serve as a primary decision-making tool related to:

- Fiscal management
- Staffing
- Resource deployment
- Budgeting
- Purchasing
- Strategic planning
- Program development/implementation
- Program oversight/assessment

- Assuring competency
- Assuring cost-effective/efficient services
- Communication with governing board(s)

As important as data is to decision making, the global fire/EMS profession continues to struggle with collection, understanding, and using data. For data to be useful, it needs to be consistently collected and then be retrievable in a format that can be understood and used. The National Fire Protection Association (NFPA) conducted a national survey pertaining to data from which two themes emerged:

1. Data, as it is currently being collected, is problematic and is not used to its fullest potential.

2. Data has significant untapped value and potential for the fire service to improve service delivery, to provide resource planning, and to increase community safety.

The survey asked fire/EMS leaders to describe data in one word which is illustrated in the figure below:

Figure 22: Data Description

Source: NFPA Research – National Fire Data Survey

The International Association of Fire Chiefs (IAFC) defines good data as:

1. **Relevant** – you are collecting information on the things that matter like response times and number of calls for service.
2. **Accurate** – your processes for data collection must be consistent and trustworthy.
3. **Reliable** – a measurement from one department is equivalent to the same measurement from another department. You do not have to "adjust your data to accommodate known distortions".

Source: International Association of Fire Chiefs: Weathering the Economic Storm, December 2008

In the case of the Skagway Fire Department, data collection and its use in making operational decisions appears to have been limited. Based on interviews with the fire chief, including a review of some of the data, it is impossible to validate the accuracy or reliability of the department's data. Likewise, there seems to be a limited understanding on how best to interpret and utilize data to identify concerns, predict future service demands, identify emerging trends, or justify financial needs.

Although this statement paints the department in a negative light related to data collection, management, and analysis, it is important to view this statement within context. As outlined above, the National Fire Protection Association (NFPA) has identified data as a significant challenge for today's fire service. Also, the records management software system utilized by Skagway is antiquated and sometimes difficult to use. Therefore, even though Skagway struggles in data management and analysis, this is an area that can be addressed and corrected through a change in the reporting software and training.

Reporting Software

In the recent past the department utilized Firehouse Software® as its records management system. This was switched July 1, 2021, to ESO® reporting software. In the past, Firehouse Software® was the premier software for fire service agencies. However, over the years Firehouse Software® has been sold several times and is currently lacking in both support and modernization. Many former Firehouse Software® customers have or are in the process of migrating away from this product. ESO® is one of the commonly selected reporting software systems that many departments are selecting as an alternative as they move away from Firehouse Software®. ESO® provides enhanced data management with much less cumbersome analytics thereby allowing data to be easily retrieved and manipulated into a reporting format that can be used for real-time decision making.

To have data that can be used, information needs to be compiled. Much of the data collected comes through incident reports and/or patient care reports (PCRs). These reports are completed after each response detailing what happened, and the actions taken to mitigate the problem. Other important areas to track are inspection/fire preplans, permits, hydrant inspections/testing/maintenance, inventory/apparatus inspections, narcotic tracking, asset management, activities, staff scheduling, and personnel management. ESO® offers modules for each of these areas.

In preparation for this move, the department decided to not migrate existing data from Firehouse Software® into ESO®. This decision will require Firehouse Software® to be maintained as an archival system for years to come. That being said, often data migration does not work well, and departments spend significant dollars trying to do the right thing only to find that their data is unusable when generating reporting information.

Therefore, it is recommended that each year dollars are budgeted to maintain the Firehouse Software® archives as well as pay for any updates to ESO®. Additionally, the department's reporting software administrator should plan to attend annually the ESO – WAVE Conference. The conference is designed

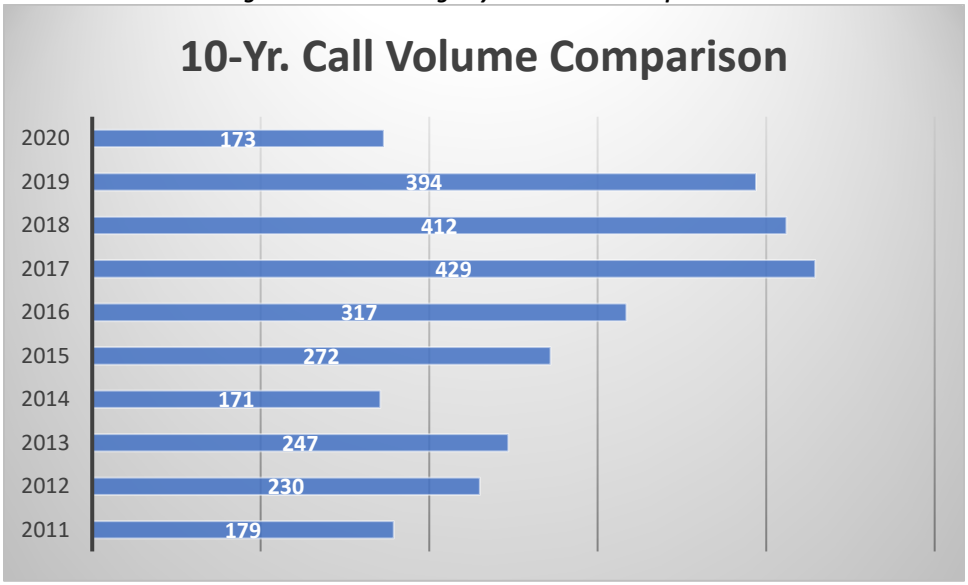
to help administrators stay current with the latest in emerging trends and best practices in fire, EMS, hospital, and state, data records management.

10-Year Call Volume Comparison

As evidenced in the below chart the department has experienced a steadily increasing call volume over the last 10-years with two notable exceptions:

- 2020 – The year of the COVID-19 Pandemic
- 2014 – Staff is unable to identify any specific situation or events that led to this irregularity in call volume trending.

Figure 23: 10-Yr. Skagway Call Volume Comparison



National Fire Incident Reporting System

The National Fire Incident Reporting System (NFIRS) was established in 1975 as one of the first programs of the National Fire Prevention and Control Administration, which later became the U.S. Fire Administration (USFA). The basic concept of NFIRS has not changed since the system's inception. All states and all fire departments have been invited to participate on a voluntary basis. Participating fire departments collect a common core of information on an incident and any casualties that ensue by using a common set of definitions. One hundred-seventy (170) Alaska fire departments provide data through the Alaska National Fire Incident Reporting System. The Skagway Fire Department participates in this national reporting system. Departments who do not participate in this system are ineligible for FEMA's Assistance to Firefighters Grant programs (AFG).

NFIRS categorizes incident types into nine (9) broad categories with each category having a series of sub-categories. The USFA collects and analyzes NFIRS data from participating states to provide a legal record

of facts, to assist fire department administrators in evaluating their fire and EMS effectiveness and collect data for use at state and national levels.

The below chart provides a 3-year comparison of Skagway's call volume broken down by NFIRS category type. It is then compared against the same categories from the national NFIRS database. To provide a more holistic overview of the types of calls Skagway handles, the years have been totaled together so a 3-year call type percentage comparison could be calculated. This process allows trends in call volume to be easily identified.

Table 2: 3-Yr. Skagway Call Data Based on NFIRS Categories

NFIRS Series	2018	2019	2020	3-Yr. Totals	3 Yr. Skagway Average Percent	3 Yr. National Average Percent	Data Variation National vs. Skagway
100 – Fire	10	12	4	26	3.27%	4.70%	1.43%
200 – Overpressure/Explosion	0	0	0	0	0.00%	0.20%	0.20%
300 – Rescue/EMS	263	223	58	544	68.43%	64.10%	-4.33%
400 – Haz. Condition	0	0	1	1	0.13%	3.70%	3.57%
500 – Service Call	12	4	13	29	3.65%	7.10%	3.45%
600 – Good Intent	1	1	0	2	0.25%	10.50%	10.25%
700 – False Alarm	59	90	42	191	24.03%	8.70%	-15.33%
800 – Severe Weather	0	0	0	0	0.00%	0.10%	0.10%
900 – Special Incident	0	1	1	2	0.25%	0.70%	0.45%
Total	***345***	***331***	***119***	***795***	100%	100%	0.00%

To fully understand the types of calls categorized by series type (100, 200, 300, 400, etc.) the following chart is designed to provide an overview of incident types within each category.

Table 3: Call type descriptions per NFIRS category

Fire Series 100	Overpressure/Explosion Series 200	Rescue /EMS Series 300

• Structure Fires
• Fire in mobile property used as a fixed structure
• Mobile property (vehicle) fire
• Natural vegetation fire
• Outside rubbish fire
• Outside fire
  ○ Mulch
  ○ Outside equipment
  ○ Outside gas or vapor
• Cultivated vegetation, crop fire (not harvested)
	• Overpressure rupture from steam – no fire
	• Overpressure rupture from air or gas – no fire
	• Overpressure rupture, chemical reaction – no fire
	• Explosion – no fire
	• Excessive heat, scorch burns with no ignition
		• Medical assist
		• Emergency medical service incident
		• Lock-in
		• Search for lost person
		• Extrication, rescue
		• Water or ice-related rescue
		• Electrical rescue
		• Rescue or EMS standby

Hazardous Condition Series 400	**Service Call Series 500**	**Canceled, Good Intent Series 600**
• Combustible/Flammable spills and leaks • Chemical release, reaction, or toxic condition • Radioactive condition • Electrical wiring/Equipment problem • Biological hazard • Accident, potential accident • Explosive, bomb removal • Attempted burning, illegal action • Hazardous condition, other	• Person in distress • Water problem • Smoke problem • Animal problem or rescue • Public service assistance • Unauthorized burning • Standby at fire station	• Dispatched and cancelled enroute • Wrong location, no emergency found • Controlled burning • Vicinity alarm • Steam, other gas mistaken for smoke • EMS call – Patient left before arrival • Haz-Mat release investigation w/no Haz-Mat found
False Alarm / False Call Series 700	**Severe Weather Series 800**	
• Malicious, mischievous false alarm • Bomb scare • System or detector malfunction • Unintentional system or detector operation (no fire) • Biohazard scare	• Earthquake assessment • Flood assessment • Windstorm, tornado/hurricane assessment • Lightning strike (no fire) • Severe weather standby	

Identifying Emergency Service Trends

When determining a department's efficiency and/or addressing future resource needs, it is prudent to examine the historical occurrences of emergencies. Typically this is done by looking at:

- Comparability of NFIRS Call Data
- Calls by month
- Calls by day of the week
- Calls by time of day
- Simultaneous/overlapping incidents
- Calls by response area
- Mutual aid/Automatic aid

NFIRS Comparability of Skagway Call Data

When analyzing comparable data between an individual department and the national average it is common to see a few percentage point differences within categories. When large variations are seen, it has been the consultant's experience that either the data was coded incorrectly or there is a unique circumstance causing the variation.

When comparing Skagway's data, all categories are within normally accepted variations other than the following call type categories:

- Good Intent – Series 600
- False Alarm – Series 700

Table 4: Skagway's NFIRS Data Variation

Data Variation: Difference Between National vs. Skagway Percentages	
100 – Fire	1.43%
200 – Overpressure/Explosion	0.20%
300 – Rescue/EMS	-4.33%
400 – Haz. Condition	3.57%
500 – Service Call	3.45%
600 – Good Intent	10.25%
700 – False Alarm	-15.33%
800 – Severe Weather	0.10%
900 – Special Incident	0.45%

The **Series 600 – Good Intent** calls in Skagway are much lower than the national percentage. Although this is an interesting fact to see, the actual number of calls is extremely low and relatively insignificant.

However, the difference in **Series 700 – False Alarm** calls in Skagway is a significant finding and one that needs to be investigated further. In this case, Skagway's response percentage to false alarms is 15.33% higher than the national average. Over a 3-year period, Skagway responded to 191 false alarms. This equates to basically one quarter of all responses.

In Skagway, structures more than 500 square feet are required to have an automatic alarm notification system connected to the city's municipal dispatch center. This requirement is in accordance with the National Fire Protection Association Standards 71, 72A and 72E (2006 Edition). All automatic fire-extinguishing systems (i.e., sprinkler systems) must be installed in accordance with National Fire Protection Association Standard Number 13. Skagway leadership should be applauded for this requirement.

False Alarms usually relate to one of two issues:

1. Calls are not being coded correctly. Coding errors usually occur when alarms activate correctly, but the underlying reason for the activation is not an actual fire. Cooking smoke and steam are the most common culprits. Often departments respond to activation calls; the reason for the activation has dissipated prior to the company arriving on-scene; the responding personnel fail to ask the appropriate questions of occupants and bystanders related to what occurred prior to the activation; and the department simply codes the response as a false alarm when the alarm worked correctly.

2. Alarm and sprinkler systems are not being maintained properly. The next most common cause of "true false alarms" is poor maintenance of the alarm and sprinkler systems. To understand this maintenance issue, it is important to have a general understanding of a fire alarm and sprinkler system design and operation. Fire alarms are typically designed in one of two configurations:

    a. Ionization Smoke Alarms are generally more responsive to flaming fires. Ionization-type smoke alarms have a small amount of radioactive material between two electrically charged plates, which ionizes the air and causes current to flow between the plates. When smoke enters the chamber, it disrupts the flow of ions, thus reducing the flow of current and activating the alarm.
    b. Photoelectric Smoke Alarms are generally more responsive to fires that begin with a long period of smoldering. Photoelectric-type alarms aim a light source into a sensing chamber at an angle away from the sensor. Smoke enters the chamber, reflecting light onto the light sensor, triggering the alarm.

Based on the design of both systems, accumulated dirt, cooking grease, spider webs, etc. can build up and cause false alarm activations.

Sprinkler systems are categorized as either "wet" or "dry," depending on the temperature variations within the structure being protected. If the structure is maintained at a temperature above freezing, the systems are usually designed as "wet" with the sprinkler head holding back the flow of water.

If the system is dry, it is due to anticipated temperatures within the structure falling below freezing. The pipes are then filled with pressurized air instead of water. When a fire occurs and the sprinkler head is activated, the air escapes the system, and a valve is automatically opened allowing water to flow to the activated sprinkler head. Sprinkler alarms activate when sensors in the system detect flowing water. These sprinkler "flow alarms" are transmitted to the dispatch center which typically results in a response by the fire department.

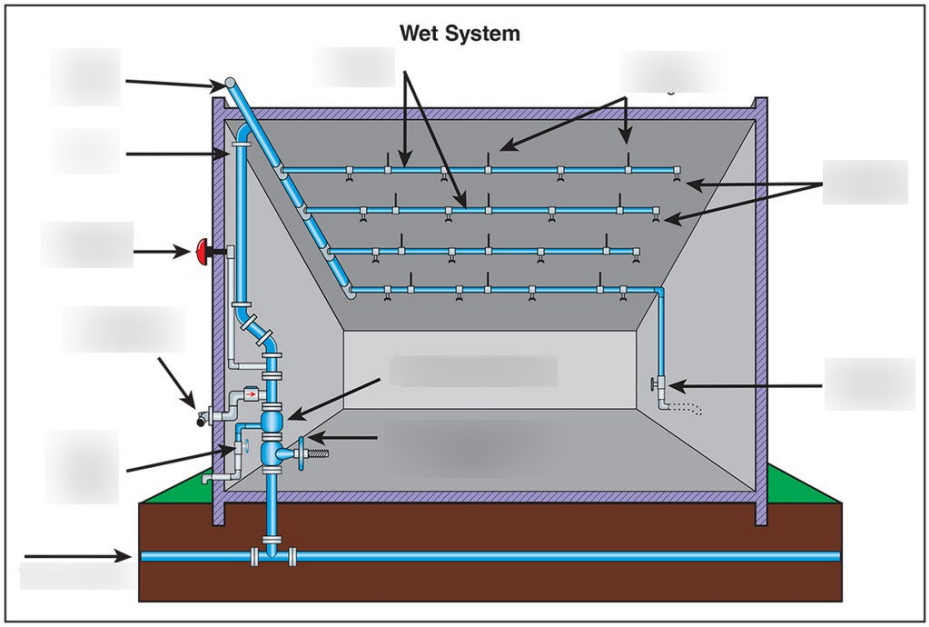
Maintenance challenges exist within these systems primarily due to leaks. For the wet system, any drop in water pressure that would make the sensors think that water is flowing will result in an alarm. For the

dry system, any air leakage that drops to a level where the dry pipe value opens will result in an alarm and the charging of the sprinkler system.

Since almost all dry systems leak air at least to some degree, systems are installed with an air compressor that automatically starts when a drop in pressure is detected. If a sprinkler head has been activated, the air pressure will not be enough to keep the water from flowing. For pinhole leaks in the system, the compressor maintains the pressure adequately.

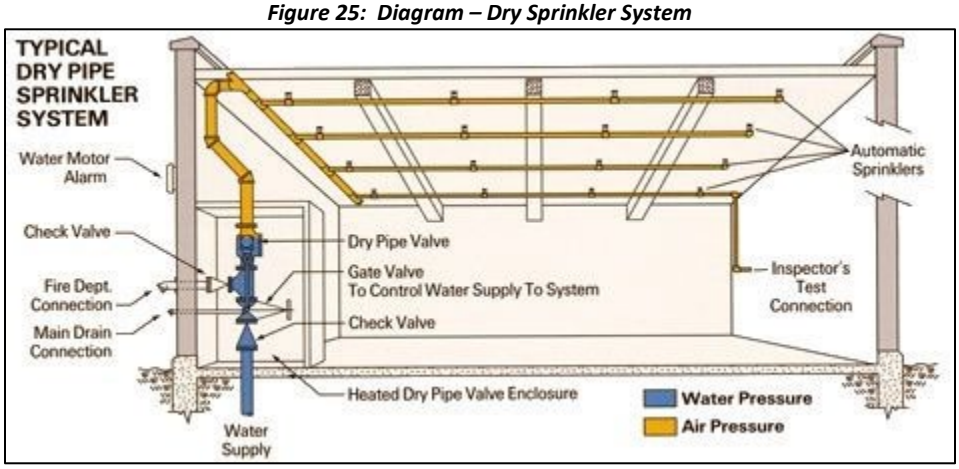
In dry systems, even with a few pinhole leaks, if the electrical power feeding the compressor goes out, the internal pressure should continue to be maintained at a level to prevent a fire alarm. Typically, a "trouble alarm" is sent to dispatch so they can notify a key holder/occupant to investigate and if necessary to have their system checked or find an alternate power source for the compressor. If the system has large leaks however, when the power goes out, the air will escape, the system will be charged, and an alarm will be sent to the dispatch center resulting in a response. Regular maintenance on these systems is required to keep them operational and to prevent generation of false fire alarms.

Figure 24: Diagram – Wet Sprinkler System



Source of Graphic: waybuilder.net

Figure 25: Diagram – Dry Sprinkler System



Source of Graphic: waybuilder.net

When discussing this anomaly with fire department personnel, the lead consultant was advised that system malfunctions (i.e., pipe breaks, compressor malfunctions, electrical outages, etc.) account for the high call volume. A private fire protection services contractor is said to come to Skagway twice per year (once in the spring and once in the fall) to service these systems. However, it is also reported that difficulty exists in finding alarm and sprinkler contractors and that continued maintenance throughout the year is difficult.

Reducing these unneeded responses is especially important for a volunteer fire department. When volunteers are summoned to respond to frequent alarms that are unfounded, they tend to stop coming to these type calls. Even the most dedicated volunteers find it difficult to drop everything and respond to a call caused by a malfunctioning alarm.

A well-structured fire safety inspection program managed by the fire department would likely prove beneficial in reducing these responses. Fire Department inspectors should work with sprinkler contractors and building owners to ensure the systems are maintained and checked on a regular schedule.

Bottom line, any actions taken by the department to address the high number of false alarm responses will be beneficial.

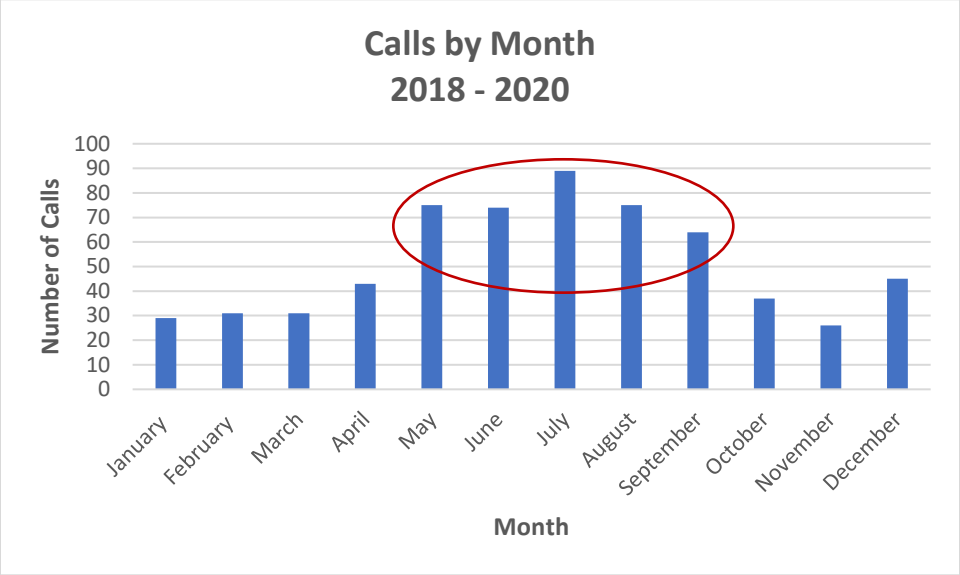
Incidents by Month

Department leadership should be particularly interested in data that indicates when the department is at its busiest. Patterns can indicate the probability of when emergency incidents will occur, allowing leadership to anticipate staffing needs/levels and make contingency plans for adequate personnel and resources.

Monthly call data indicates that Skagway Fire Department receives the most calls for service during the months of May – September. During this period, the call volume averages seventy-five (75) responses per

month. For the remaining seven (7) months of the year the average call volume drops back to thirty-five (35). This more than doubling of call volume is significant and supports the need for seasonal responders to assist the volunteers in handling the overall call volume.

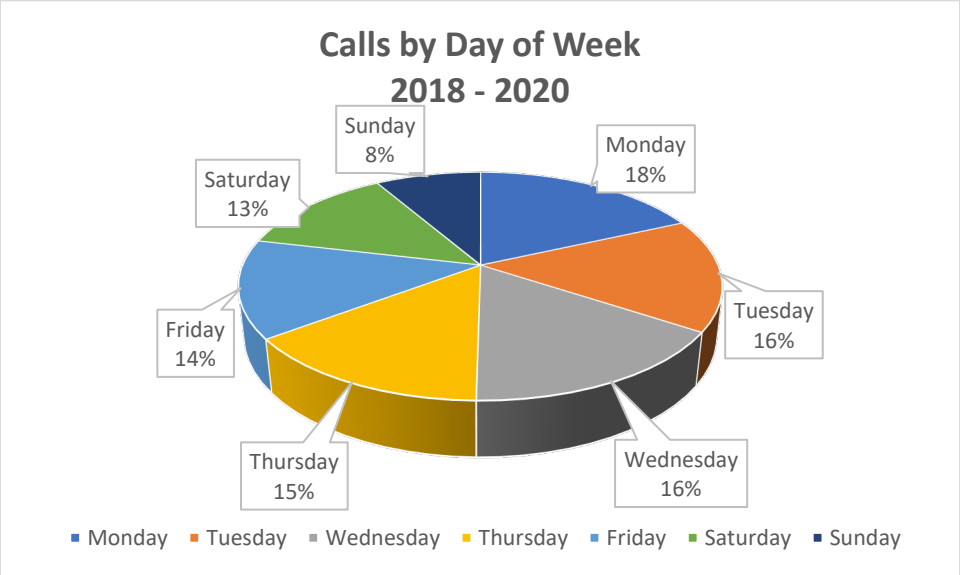
Figure 26: Skagway's 3-Yr. Average – Calls by Month



Incidents by Day of the Week

Incidents reviewed by day of the week is another metric utilized by departmental leadership to manage the resources of the organization. Along with time of day and perhaps incidents by month, this information could be of value if a pattern emerges, suggesting staffing or resource deployment might change.

Figure 27: Skagway's 3-Yr. Average – Calls by Day of Week



Incidents by Time of Day

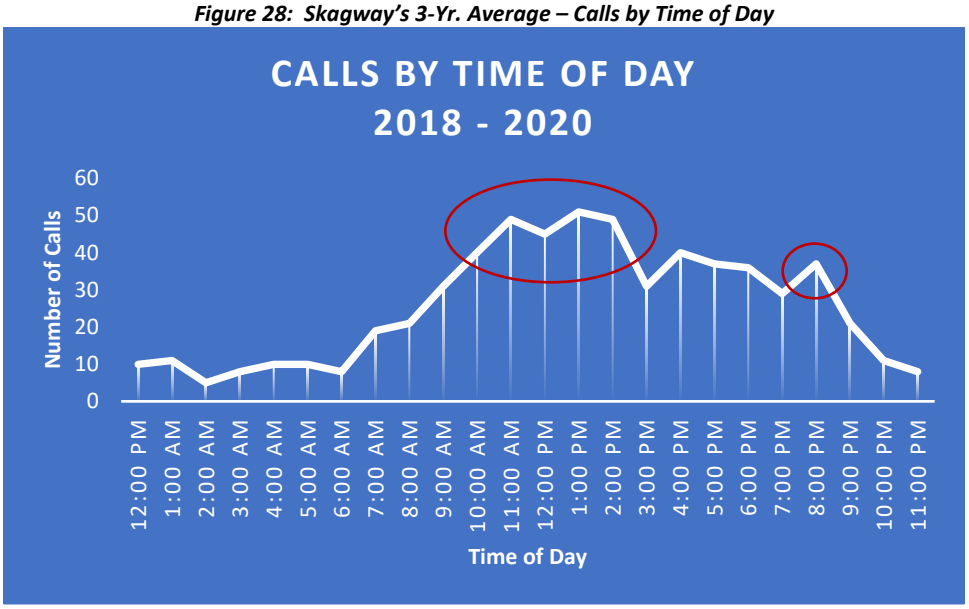
In most departments, incidents charted by time of day follow a pattern similar to a "bell curve". The least busy time of day is from midnight to early morning, peaking in the mid to late afternoon, and decreasing in the later evening hours. Although industry-wide the least busy time of day is from midnight to early morning, it is also when the highest number of civilian fire deaths occur due to the occupants sleeping. Those most at risk are the very young and old, who often are less able to escape and protect themselves.

Skagway generally follows the national pattern with most calls occurring between 10 am – 2 pm. The department also interestingly sees a spike in call volume during the 8 pm hour.

During the 10 am – 2 pm peek, the annual average call volume is forty-seven (47). The 8 pm peak averages annually thirty-seven (37) calls. If using the 3-year average total call volume shown in **Table 2: *3-Yr. Skagway Call Data Based on NFIRS Categories,*** then it can be noted that 1/3 of all Skagway calls occur during these peak times.

The chart below illustrates the average for the 3-year period of 2019 – 2020 with peak times circled in RED.

Figure 28: Skagway's 3-Yr. Average – Calls by Time of Day



Based on these numbers, including the risk factors associated with overnight calls, it can be argued that Skagway needs to ensure 24-hour staffing at levels sufficient for a quick and efficient response to emergency calls. Likewise, the department needs to establish a policy in which personnel working an 8-hour day take their lunch breaks either in the fire hall or as a group if they choose to leave the fire hall, so they are able to timely respond to emergency calls (i.e., this is the busy time). The only exception to this policy should be the fire chief, and only if the chief is not required to be part of the crew staffing an ambulance/engine. Also, anytime the chief leaves the department, he/she needs to do so using his/her assigned command vehicle so he/she is available to immediately respond to calls.

Overlapping Incidents

The collection and review of data regarding overlapping calls is advantageous in determining resource deployment, staffing, budgeting, and planning. Overlapping incidents occur when a department has more than one incident response going at the same time. This is an important data point to track as some incidents require more than one fire department unit to respond. A high volume of incidents and frequency of overlapping incidents experienced should lead the department's governing body and department leadership to conclude the department requires additional resources to provide effective and efficient emergency response.

When Does Addressing Overlapping Calls Become a Priority?

There are three (3) basic components of fire department emergency response performance:

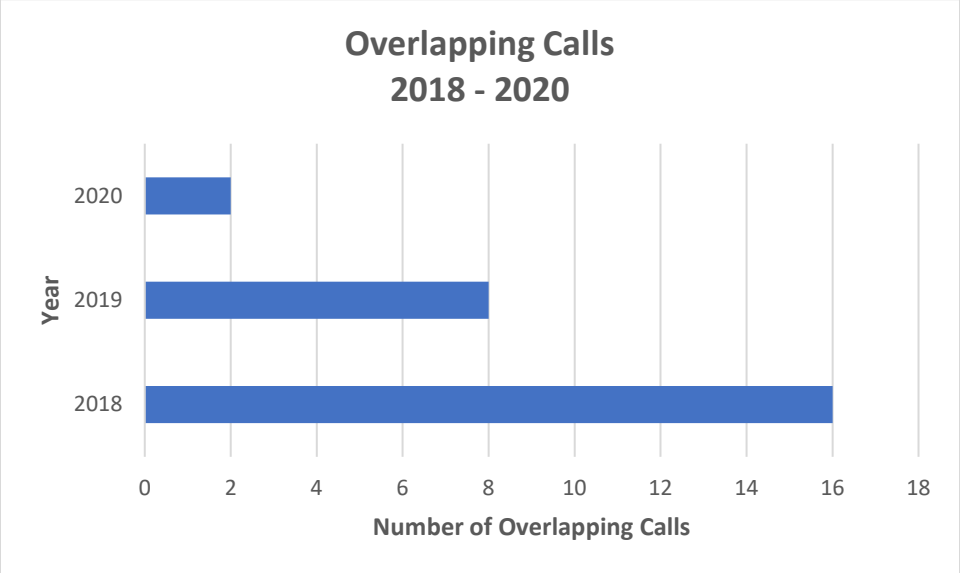
- *Availability*—The degree to which the resources are ready and available to respond.
- *Capability*—The abilities of deployed resources to manage an incident.

- *Operational Effectiveness*—A product of availability and capability. It is the outcome achieved by the deployed resources or the ability to match resources deployed to the risks to which they are responding.

Any fire department unable to address these three (3) components immediately is at significant risk for unfavorable results.

There is no consensus in the industry as to an exact number when overlapping incidents require additional resources. The lead consultant has found that in most studies when overlapping incidents reach between 18% - 20% of total incidents, greater emphasis must be placed on additional staffing and resources.

Figure 29: Skagway's 3-Yr. Average – Overlapping Calls



Calculating Skagway's overlapping incidents by percentage, the number of calls that fall into this category is very low and does not indicate a significant challenge at this time.

Figure 30: Skagway's Overlapping Incidents by Percentage

Overlapping Incidents by Percentage	
2020	1.2%
2019	2.0%
2018	3.9%

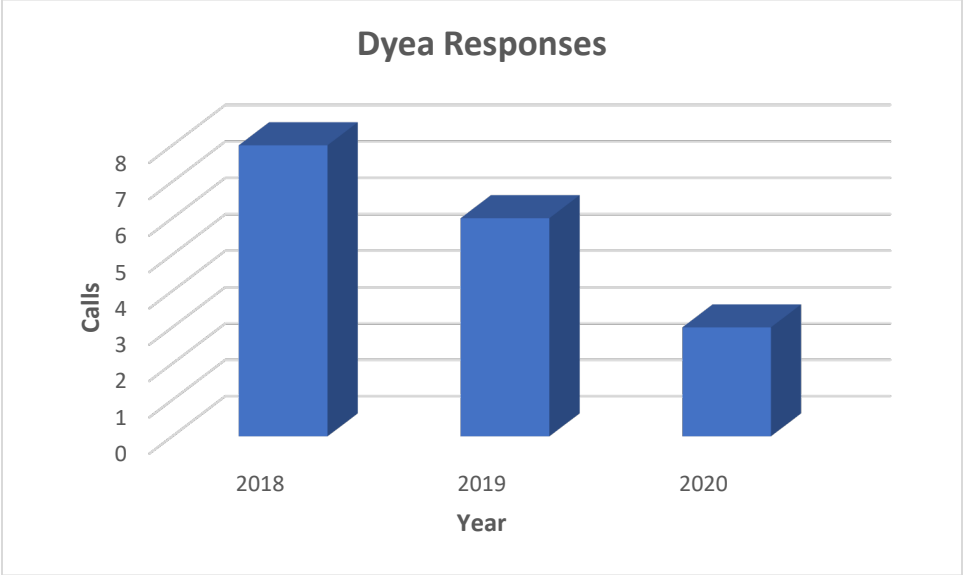
Incidents by District

Due to the overall geographical size of Skagway's response territory, it is important to note that the majority of the population occupies a twenty-two (22) block-long by five (5) block-wide area made up of businesses and a residential district. Outside of this area, the district has minimal population, business structures, and occupied dwellings. The primary response area of Skagway Fire Department is covered well by the current fire hall.

The primary area outside of Skagway proper is the Dyea area. Discussions have reportedly occurred about whether to construct a second fire station in this area. During the tour of the coverage area, the former fire chief identified for the lead consultant a site for a proposed second fire hall.

Figure 31: Proposed Dyea Fire Hall Location

Figure 32: Skagway's 3-Yr. Dyea Responses



Overall, the Dyea area accounts for less than two (2) percent of all annual responses:

- 2018 – 1.94%
- 2019 – 1.52%
- 2020 – 1.73%

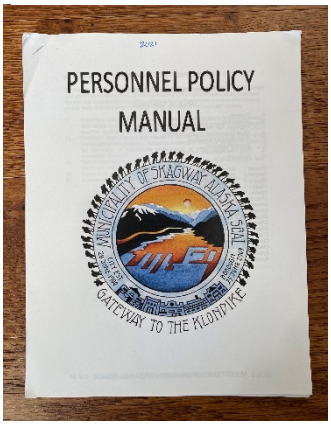
Although there is an absolute delay in response times into this area, the low call volume coupled with the limited number of residents living in this area likely make the operation of a second volunteer fire hall unrealistic. The lead consultant does not currently recommend construction of a second facility in the Dyea area.

Review of Standard Operating Guidelines and Administrative Policies

Written policies are designed to provide direction and be a source of reference while preventing problems through clear communication. They help the employee understand expectations and performance standards and provide guidance on how to manage both emergency and non-emergency incidents. Within emergency service organizations, policies are typically broken into four basic categories:

- Employee Handbook/Personnel Policy Manual:
    - Usually developed and maintained by the employer (i.e., City/Borough) this manual contains policies common to all employees regardless of department/division.
    - The employee handbook is a compilation of policies intended to provide direction for both the organization and the employee. It should clearly define the expectations of performance including the rules of conduct. Handbook policies are designed to be inwardly focused. (A review of Skagway's Personnel Policy Manual will be included in the **Personnel Management** section of this report.)

Figure 33: Municipality's Personnel Manual



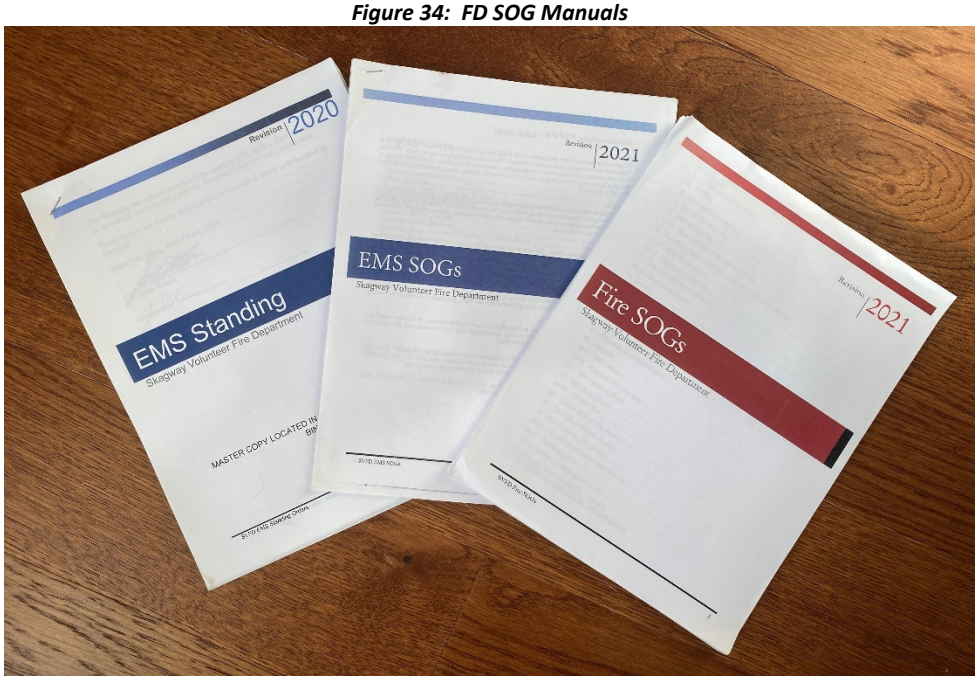
- Fire Department Administrative Policies:
    - Administrative policies build on the information provided in the Employee Handbook and cover areas specific to the fire department and the paramilitary culture of the organization.
    - Typical areas referenced include but are not limited to:
        - Sworn employee code of conduct
        - Department I.D. / Credentials
        - Personal appearance and grooming
        - Uniform policy
        - Staffing standards:
            - Call back/overtime policies
            - Maximum consecutive hours policy
        - Daily / weekly work plan for on-duty personnel
        - Commendation policy
        - Training policy
        - Etc.

- Standard Operating Guidelines (SOGs):
    - Standard Operating Guidelines (SOGs) are outwardly focused. They are designed to give direction on how the organization provides services. (May include size-up, hose stretch, etc.)
    - SOGs operate from the premise that emergency incidents are more alike than different and consistency in performance reduces mistakes.

- Job Performance Requirements (JPRs):
    - SOGs focus on operations while job performance requirements (JPRs) focus on skills.
    - Job Performance Requirements (JPRs) are used to teach the skills needed to carry out operations as identified in the SOGs. (May include skills such as saw operation, forcible entry, etc.)
    - JPRs are designed to make the organization more efficient by providing a standardized training plan for teaching and evaluating the skills used on the job.

The lead consultant was provided copies of the Personnel Policy Manual, Fire – SOGs, EMS – SOGs, and EMS Standing Medical Orders.

Figure 34: FD SOG Manuals



<u>Fire – Standard Operating Procedures (2021)</u>

As an overall statement, this manual is generally well done but could be strengthened with the addition of several policies that are clearly missing as well as tracked revisions for each section. Also, some policies are very rudimentary and could be expanded to provide better clarity for operating personnel. Although not a comprehensive listing, some additional policies to be considered are as follows:

- All-Terrain Vehicle Operations
- Emergency Vehicle Driving
- Engineering/Pump Operations
- Personal Protective Equipment: Usage and Care
- OSHA Bloodborne Pathogen Training (Required by OSHA)
- Support (Truck) Operations
- Tender Operations
- Carbon Monoxide Incidents
- Thermal Imaging Cameras
- Foam Operations
- Marine (SERV-U) Operations
- Water Rescue/Swift Water Operations
- Wildland/Wildland Urban Interface
- Trench Rescue Operations
- Search and Rescue Operations
- High-Angle/Rope Rescue Operations
- Lock-out/Tag-out (Required by OSHA)
- Hostile/Violent/Active Shooter Incidents
- Handling pets & other animal-related incidents

As indicated earlier in this report, when borrowing information from other agencies, it is important to make sure that what is used has been modified to truly reflect Skagway Fire Department. As an example, in the policy titled FIRE RESPONSE: Structure Fire, under the section "Special Hazards" the following statement is written:

> *If there is any doubt as to the stability of the structure a request should be made to the Technical Services Officer (the Department Fire Protection Engineer) to inspect the building.*

Based on information provided to the lead consultant, neither Skagway Fire Department nor the Municipality of Skagway employs a Fire Protection Engineer.

Additional comments regarding this manual:

- Chief's open-door policy: Move this policy to a newly created FD – Administrative Policy Manual and then remove it from this document.
- Mentorship Program: This is an excellent policy and should, when implemented, work well to develop new members of the department. However, it should be removed from this manual and placed into the Administrative Policies.
- Hose Operations Guidelines (HOG): This policy is very well done, and the photos work well to enhance learning. However, this policy is really a Job Performance Requirement (JPR) and should be removed from the SOG manual and applied as part of the department's JPRs.

- Ladder Operation Guideline (LOG): Similar to the statement related to Hose Operation Guidelines, this policy as written is really a JPR.
- Rope Operation Guide (ROG): Although the photos used to describe the knots used/approved by Skagway Fire Department may be considered for inclusion as part of a some of the various rescue SOGs, they should also be developed into a JPR for purposes of skill training and assessment.

EMS – Standard Operating Procedures (2021)

This document is well developed and provides clear direction to EMS responders. It exists in a clearly written format with revision dates noted at the top of each section. It is primarily focused on response operations, but also contains a policy on EMT certification / recertification. This singular section would be better placed with FD – Administrative Policies and removed from this document.

EMS – Standing Medical Orders (2020)

This document has been approved and signed by Dr. Jodie Totten, MD. The document provides medical direction for all facets of emergency patient care and is approved for use by Emergency Trauma Technicians, Emergency Medical Technicians I, II, and III, as well as Mobile Intensive Care Paramedics. The document is excellently developed, is easy to read, and includes several patient care flow charts. It is current with American Heart Association standards related to Advanced Cardiac Life Support while also including specific information related to providing emergency patient care in Alaska.

As policies are developed and implemented, they need to be distributed to department members along with appropriate training. An acknowledgement record needs to be signed by each department staff member and maintained as part of his/her permanent file. Commonly used language for this sign-off acknowledgment form is as follows:

> *I acknowledge by my signature that I am in receipt of updates as follows to the Skagway Fire Department _____ (i.e., Personnel Policy Manual, Administrative Policies, Fire – SOGs, EMS – SOG, EMS – Standing Medical Orders) and acknowledge that it is my responsibility to review and understand the contents of these documents and to abide by the practices, policies, procedures, rules and regulations contained herein. I also understand that it is my responsibility to keep this information updated and current and to remain familiar with all policy modifications and changes as approved and implemented by the Department.*

RECOMMENDATIONS

- *Annually budget training dollars for the department's reporting software administrator to attend the ESO – WAVE Conference.* ***Priority 5***
- *Annually budget dollars to maintain the Firehouse Software® archives.* ***Priority 5***

- *Develop and initiate a well-structured fire safety inspection program where bi-annual alarm and sprinkler system inspections are reviewed to ensure compliance with design and maintenance standards.* ***Priority 4***
- *Continue the program of hiring seasonal emergency responders to assist with the increased call volume during the months of May – September.* ***Priority 3***
- *It is not recommended that a second fire hall be constructed in the Dyea area.* ***Priority 5***
- *Institute a policy in which personnel working an 8-hour day take their lunch breaks either in the fire hall or as a group if they choose to leave the fire hall, so they are able to timely respond to emergency calls.* ***Priority 1***
- *Develop a Fire Department Administrative Policies Manual that builds on the information provided in the Employee Handbook and covers areas specific to the fire department and the paramilitary culture of the organization. Move all "non-operational" policies now contained in the various SOG manuals to this newly created manual. Have all employees complete a sign-off acknowledgement receipt of the updates/changes.* ***Priority 3***
- *Conduct a comprehensive analysis of needed department SOGs. Develop Skagway specific SOGs based on this analysis and then conduct training with all staff related to the policies. Have all employees complete a sign-off acknowledgement receipt of the updates/changes.* ***Priority 3***
- *Conduct a comprehensive analysis of all skills required to operate proficiently as an employee of Skagway Fire Department. JPRs along with skill testing sheets should be developed for each of these skills. Additional JPRs should be developed for all "specialty skills" and should be used for those with responsibilities in each of these disciplines. (e.g., EMS, Search and Rescue, Technical Rescue, Hazardous Materials, etc.)* ***Priority 3***

National Standards

Several national standards exist that can be used by Skagway Fire Department to help in decision making related to management of the organization. Many of these standards have been established as a benchmark of professional performance.

Some of these standards are mandatory, but not all. It is prudent to understand the standards and their overall applicability to Skagway Fire Department. Due to the breadth of the standards, it is wise for the department to seek compliance with the voluntary standards as much as possible, while also understanding that few organizations can fully meet them. Wise discernment of how to apply these standards to the department, coupled with fiscal responsibility, will be Skagway's best management tool related to the impact of national standards on the organization. The mandatory standards need to be met with 100% compliance.

National Fire Protection Association (NFPA)

Non-mandatory

The National Fire Protection Association (NFPA) is a global, non-profit organization that promotes safety standards, education, training, research, and advocacy on fire and electrical-related hazards. Established in 1896 as a way to standardize the use of fire sprinkler systems, the NFPA's scope grew to include building design, rescue response, electrical codes, and other safety concerns.

NFPA publishes more than 300 consensus standards intended to minimize the possibility and effects of fire and other risks. NFPA standards are administered by more than 250 technical committees comprising approximately 8,000 volunteers. NFPA standards are adopted and used throughout the world.

The National Fire Protection Association (NFPA) uses consensus standard rule making. Consensus standards are developed through the cooperation of all parties who have an interest in participating in the development and/or use of the standards. Consensus requires that all views and objections be considered and that an effort be made toward their resolution. Committees are composed of industry representatives, fire service representatives, and other affected parties who all work together to agree on the final rule. NFPA standard revision dates work on a three-five-year review cycle.

NFPA Standards Immediately Applicable to Skagway

NFPA 1981

NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, establishes the minimum respiratory protection and functional requirements for SCBA used by emergency services personnel. The most recent standard was established in 2018. Recommended changes to this standard are currently underway with public comment open through November 2021.

Skagway Fire Department undertook a piecemeal process for updating SCBA. The department purchased new Scott 3M™ Scott™ Air-Pak™ X3 Pro SCBA. These units operate at a 4500-psi pressure rating and are excellent breathing apparatus. These units are compliant to NFPA 1981, 2018 Edition, including compliance with the Standard on Personal Alert Safety Systems (PASS).

Since the department did not change over all SCBA at one time, it now operates with units manufactured under two different NFPA standards. Other than for SCBA, this "two NFPA standards" model would not generally be problematic. However, since operating changes were made based on revisions within the standard, firefighters are now required to learn and stay proficient with differing SCBA. This can be challenging when operating in an Immediately Dangerous to Health and Safety (IDLH) environment and, thereby, present a potential safety risk to firefighters.

The department has two options related to correcting this situation:

1. Within the next budget cycle, purchase and change out the remaining SCBA with Scott 3M™ Scott™ Air-Pak™ X3 Pro SCBA meeting the NFPA 1981 standard.
2. Hold off on purchasing the SCBA needed to complete the changeout and wait for the new NFPA 1981 standard to be adopted. This could be 1-2 years away based on the review and consensus process. Under this option, once the second round of new SCBA units arrive, the original Scott 3M™ Scott™ Air-Pak™ X3 Pro SCBA will need to be sent back and upgraded to meet the new standard and to make all operating units the same. These units are new enough that an upgrade should not be overly challenging. It would be impossible, however, to speculate on the cost of this upgrade.

Regardless of the option selected, the department needs to utilize SCBA that all operate the same with the same options and safety standards. This issue is directly linked to the OSHA standard for respiratory protection; 29 CFR § 1910.134.

NPFA 1710 and/or NFPA 1720

NFPA has adopted two (2) standards addressing fire department organization and operation: NFPA 1710 – Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, and a sister standard NFPA 1720 – Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by Volunteer/Paid-On-Call Fire Departments.

Although NFPA 1720 is very comprehensive, it is not as stringent as NFPA 1710. Since Skagway is technically a combination department with a volunteer workforce supported by career staffing, NFPA 1720 is the most applicable standard. Going forward, Skagway should use the standard as a performance benchmark attempting to meet as many NFPA 1720 standards as feasibly and fiscally possible.

Chapter 4 of the standard provides specific detail on a variety of benchmark issues. Each of these benchmarks offer Skagway guidance on goal setting and performance tracking.

- Fire Suppression Organization
    - Fire suppression operations shall be organized to ensure that the fire department's fire suppression capabilities include sufficient personnel, equipment, and other resources to deploy fire suppression resources efficiently, effectively, and safely.
    - The authority having jurisdiction (AHJ) shall promulgate the fire department's organizational, operational, and deployment procedures by issuing written administrative regulations, standard operating procedures, and departmental orders.
    - Fire Department procedures shall clearly state the succession of command responsibility.

- Community Risk Management
    - The fire department shall participate in a process that develops a community fire and emergency medical services risk management plan.
    - Plan should address risks associated with the storage, use, and transportation of hazardous materials.

- Staffing and Deployment
    - The fire department shall identify minimum staffing requirements to ensure that a sufficient number of members are available to operate safely and effectively.
    - The following table shall be used by the AHJ to determine staffing and response time objectives. The objectives are based on structural firefighting in a 2,000 ft² two-story, single-family home, without basement and exposures.
    - Operational standards:
        - A jurisdiction can have more than one demand zone. Skagway's demand zones are highlighted in "yellow" within the chart.
        - Response time begins upon completion of the dispatch notification and ends when the required resources are on-scene.

Table 5: NFPA 1720 Response/Deployment Standards

Demand Zone	Demographics	Minimum Staff to Respond	Response Time (Minutes)	Meet Objective (%)
Urban	>1,000/mi^2	15	9	90
Suburban	500-1,000/mi^2	10	10	80
Rural	<500/mi^2	6	14	80
Remote	≥ 8 miles	4	Related to Travel Distance	90
Special Risk	Determined by AHJ	Determined by AHJ	Determined by AHJ	90

Staffing and Response Time (edition 2020)

- Annual Evaluation
    - The fire department shall evaluate its level of service, deployment delivery, and response time objectives on an annual basis.
    - The evaluation shall be based on data relating to level of service deployment, and the achievement of each response time objective in each demand zone within the jurisdiction of the fire department.

- Quadrennial Report (Every 4-Yrs)
    - The fire department shall provide the (AHJ) with a written report, quadrennially, which shall be based on the annual evaluation required by the above chart.
    - This report shall explain the predictable consequences of identified deficiencies and address the steps within a fire department's strategic plan necessary to achieve compliance.

- Fire Suppression Operations
    - One individual shall be assigned as the incident commander. The incident commander shall be responsible for the overall coordination and direction of all activities for the duration of the incident.
    - Initial firefighting operations shall be organized to ensure that at least four members are assembled before interior fire suppression operations are initiated in a hazardous area.
    - Outside the hazardous area, a minimum of two members shall be present for assistance or rescue of the team operating in the hazardous area.
    - Initial attack operations shall be organized to ensure that if, upon arrival at the emergency scene, initial attack personnel find an imminent life-threatening situation where immediate action could prevent the loss of life or serious injury, such action is permitted with less than four personnel when conducted in accordance with NFPA 1500.
    - The fire department shall have the capability for sustained operations, including fire suppression; engagement in search and rescue, forcible entry, ventilation, and preservation of property; accountability for personnel; the deployment of dedicated rapid intervention crew (RIC); and provision of support activities for those situations that are beyond the capability of the initial attack.

This standard complies with the Occupational Safety and Health Administration (OSHA) regulations related to the two-in / two-out standard; 1910.134(g)(4)(i).

NFPA 1582

NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments, establishes the minimum "fitness for duty" medical standard required for firefighters to operate wearing personal protective equipment within an IDLH atmosphere. This standard does not apply to single role EMS providers, support personnel, exterior only firefighters, or personnel who only serve as drivers for emergency apparatus. (Depending on Alaska standards, apparatus drivers who fill this singular role may hold some standards related to CDL medical requirements). The department should make every effort to comply with the medical standards as established per this standard, including testing requirements based on age and frequency of exams. This standard complies with the Occupational Safety and Health Administration (OSHA) regulations related to medical evaluations of employees required to use respirators; 1910.134I(1)(iii).

NFPA 1584

NFPA 1584, Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises, establishes procedures/best practices for firefighter on-scene rehabilitation. This standard is an important part of reducing firefighter injuries and deaths due to the physiologic impact of firefighting. Rehab should be considered an integral part of fire scene management, training exercises,

and an occupational health and safety program. The necessary components of an on-scene rehab operation include:

- Rest and Recovery
- Relief from incident and environmental conditions
- Rehydration
- Nourishment
- Medical Monitoring
- Decontamination
- Operation within the established accountability system

The department should work to build a process making rehab available to all operating personnel at incidents where a physiologic and/or emotionally challenging event is unfolding/unfolded. Rehab standards should be addressed per policy within the department's standard operating guidelines.

Occupational Safety and Health Administration (OSHA)

Mandatory

The Occupational Safety and Health Administration (OSHA) was established by Congress in 1970 through the Occupational Safety and Health Act. The Act worked to ensure safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education, and assistance. The Act covers most private sector employers and their workers, in addition to some public sector employers and workers in the 50 states and certain territories and jurisdictions under federal authority.

Respiratory protection

One of the primary standards applicable to the fire service is 29 CFR § 1910.134 – Respiratory protection.

The standard establishes (1910.134I(1)): In any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by the employer, the employer shall establish and implement a written respiratory protection program with worksite-specific procedures. The program shall be updated as necessary to reflect those changes in workplace conditions that affect respirator use. The employer shall include in the program the following provisions of this section, as applicable:

- 1910.134I(1)(i) – Procedures for selecting respirators for use in the workplace
- 1910.134I(1)(ii) – Medical evaluations of employees required to use respirators
    - NFPA 1582 serves to meet the standards as established within this section.
    - Other medical evaluation options other than following the NFPA standard exist as well.
- 1910.134I(1)(iii) – Fit testing procedures for tight-fitting respirators

    - The employer shall not permit respirators with tight-fitting facepieces to be worn by employees who have:
        - Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function; or
        - Any condition that interferes with the face-to-facepiece seal or valve function.
    - If an employee wears corrective glasses or goggles or other personal protective equipment, the employer shall ensure that such equipment is worn in a manner that does not interfere with the seal of the facepiece to the face of the user.
    - For all tight-fitting respirators, the employer shall ensure that employees perform a user seal check each time they put on the respirator.
- 1910.134I(1)(iv) – Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations
- 1910.134I(1)(v) – Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators
- 1910.134I(1)(vi) – Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators
- 1910.134I(1)(vii) – Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations
- 1910.134I(1)(viii) – Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance
- 1910.134I(1)(ix) – Procedures for regularly evaluating the effectiveness of the program

Based on these mandatory standards it is recommended that the department establish within the Standard Operating Guidelines policies for use and maintenance of SCBA.

It is also recommended that the department establish a "grooming policy" within the departments administrative policies requiring personnel to be clean shaven when responding to calls with no facial hair that comes between the sealing surface of the facepiece and the face.

Two-in/Two-Out Standard (Standard is part of the Respiratory Protection Standard; 29 CFR § 1910.134):

Section 1910.134(g)(4)(i), commonly referred to as the fire fighters' "two-in/two-out" regulation requires the following:

- The interior structural firefighting procedures provide for at least two firefighters inside the structure.
- The two firefighters inside the structure must have direct visual or voice contact between each other and direct, voice or radio contact with fire fighters outside the structure.
- That there be two firefighters outside the hazard area to initiate a rescue of the firefighters inside, should they become in trouble (this pertains to the "initial" interior operation crew).
    - One of these outside firefighters must actively monitor the status of the inside fighters.

    - The second outside firefighter may perform a variety of other duties, such as pump operations, incident commander, or outside hose line operation.
- Once a second crew is assigned or is operating in the hazardous area, the incident is no longer considered in the "initial" stage and a dedicated rapid intervention crew is now required.
- The standard does not require the "two-in/two-out" provision if the fire is still in the incipient stage.
- It does not prohibit firefighters from fighting the fire from outside before sufficient personnel have arrived.
- It does not prohibit firefighters from entering a burning structure to perform rescue operations when there is a reasonable belief that victims may be inside.
- It is only when firefighters are engaged in the interior attack of an interior structural firefighting that the "two-in/two-out" requirement applies.
- It is the incident commander's responsibility to judge whether a fire is an interior structural fire and how it will be attacked.

Required Training:

- 1910.120 (q) – Requirements for emergency personnel who respond to hazardous materials incidents:
    - Every fire department has the potential to respond to known or unknown hazardous materials incidents.
    - All responders need to be trained to a minimum of first responder awareness.
- 1910.132 – Personal Protective Equipment (PPE)
    - Departments are required to train all members that may be required to wear personal protective equipment before being allowed to perform work requiring the use of PPE.
    - Training must include:
        - When PPE is necessary
        - What PPE is necessary
        - How to properly don/doff
        - How to adjust and wear PPE
        - The limitations of PPE
        - The proper care, maintenance, useful life, and disposal of PPE.
- 1910.156 & 1910.157 – The department shall provide a policy that details the type, amount, and frequency of training to be provided to members. This can be accomplished through an annual written training plan and calendar.

- 1910.1030 – Blood Borne Pathogen Training
    - Department members who may respond and come into contact with bloodborne pathogens are required to receive training on management and protection.
    - Training shall take place before members are allowed to respond on calls and then at least annually thereafter.

It is recommended that the department establish an annual training plan that incorporates required OSHA topics.

Insurance *Service Offices, Inc (ISO™)*

Non-mandatory

Insurance Service Office (ISO™) is a leading source of information about property casualty insurance risk that provides risk information to many industries, including government. The ISO™ Public Protection Classification (PPC) program is designed to help establish fire insurance premiums for residential and commercial properties based in part on a community's fire protection services.

By itself, ISO™ ratings do not provide a comprehensive assessment of staffing, deployment, and service delivery. ISO™ is not an industry standard; it is only an index developed through a standardized data pool that is used by insurers to set rates.

The Insurance Services Office, Inc. publishes and utilizes the Fire Suppression Rating Schedule (FSRS) to "review available public fire suppression facilities, and to develop a Public Protection Classification for insurance purposes". Once a fire department's capability is determined and classified, the information is communicated to, and might be used, by insurers to set rates for homeowners and commercial properties in local communities.

Although the primary purpose of this tool is to rate fire protection from which insurance rates can be established, ISO™ ratings have been one of the few benchmarks to compare community fire protection. Realizing the true intent of the ISO™ classification, one should not use it as the sole determining factor in establishing public fire protection. Rather, the schedule should be considered an instrument for comparison and an additional assessment factor from which organizations can make decisions on how best to provide services.

Public Protection Classification Number

The Public Protection Classification Numbering system utilized by ISO™ is as follows:

Table 6: Source ISO™ - Public Protection Classification Numbering

PPC	Points
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0 to 9.99

In obtaining an ISO™ Classification, the grading is broken down into three (3) major categories, with Community Risk Reduction recently added as a fourth category, resulting in the total percentage becoming 105.5%.

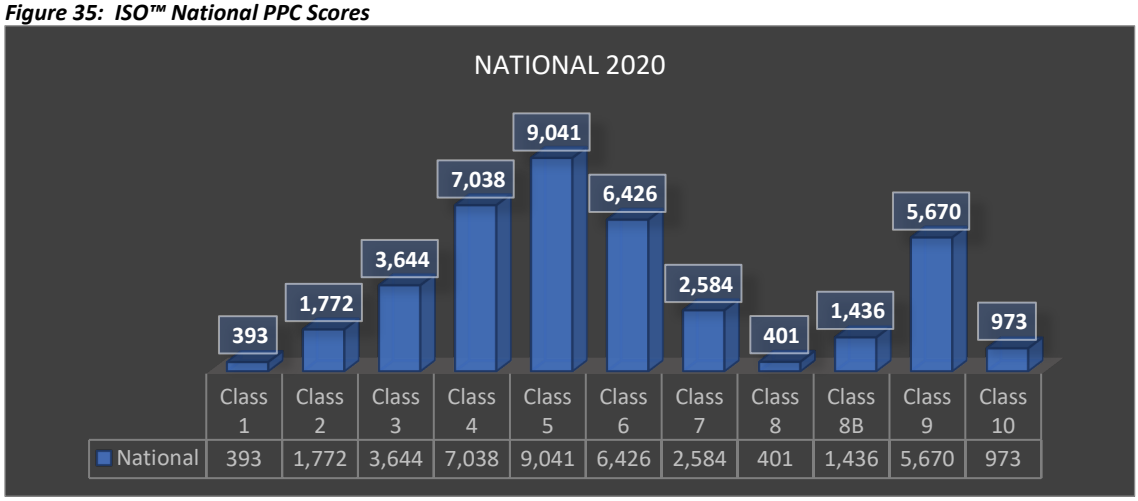
Table 7: Source ISO™: Point Values

ISO Point Value	% Value	Point Value
Receiving & Handling of Fire Alarms	10%	10
Fire Department	50%	50
Water Supply	40%	40
Community Risk Reduction	5.5%	5.5
Total Possible Points	105.5%	105.5

National ISO™ Classifications – 2020

The chart below illustrates the ISO™ PPC scores for the 39,378 rated departments in the U. S.

Figure 35: ISO™ National PPC Scores



Skagway Fire Department – PPC Classification

Skagway was last rated in 2016 and received a split classification rating: **Class 04/4X**

The first number is the class that applies to properties within 5 road miles of the responding fire station and 1,000 feet of a creditable water supply, such as a fire hydrant, suction point, or dry hydrant.

The second number is the class that applies to properties within 5 road miles of a fire station but beyond 1,000 feet of a creditable water supply.

Properties beyond 5 road miles: **Class 10**

Table 8: ISO™ PPC Score Skagway Fire Department – Rated in 2016

FSRS Item	Credit Earned	Credit Available
Emergency Reporting		
Credit for Emergency Reporting	1.35	3.00
Credit for Telecommunicators	3.20	4.00
Credit for Dispatch Circuits	1.20	3.00
Credit for Emergency Communications	5.75	10.00
Fire Department		
Credit for Engine Companies	5.94	6.00
Credit for Reserve Pumpers	0.28	0.50
Credit for Pumper Capacity	3.00	3.00
Credit for Ladder Service	1.5	4.00
Credit for Reserve Ladder & Service Trucks	0.00	0.50
Credit for Deployment Analysis	7.44	10.00
Credit for Company Personnel	3.33	15.00
Credit for Training	5.02	9.00
Credit for Operational Considerations	2.00	2.00
Credit for Fire Department	38.51	50.00
Water Supply		
Credit for Supply System	24.31	30.00
Credit for Hydrants	3.00	3.00
Credit for Inspection & Flow Testing	6.20	7.00
Credit for Water Supply	33.51	40.00
Divergence	-5.35	
Community Risk Reduction	3.25	5.50
Total Credit	65.67	105.50

Center for Public Safety Excellence *(CPSE)*

Non-mandatory

A better fire department evaluation tool than ISO™ is the Center for Public Safety Excellence (CPSE) Accreditation Model. CPSE has developed a program that measures the quality and performance of a fire service agency and will award national accreditation to those departments that pass the stringent criteria. The criteria use more than 250 performance indicators, including 70+ core competencies.

The accreditation process requires departments to document the level of fire safety, fire prevention, fire safety education, and fire suppression services provided by the organization. The answers and deficiencies then serve as decision factors for determining the future level of service the department should provide. The accreditation process also involves a level of community outreach where the residents and businesses are asked their opinion whether or not emergency service protection is appropriate, adequate, and effective. The advantage to the accreditation program lies in the process itself. The department is required to examine every aspect of its operation and determine its effectiveness in meeting the community's needs.

Although the lead consultant does not recommend the department begins the accreditation process, administration should use the performance indicators and benchmarks set up for the evaluation process as a guide while developing policies and procedures for the department.

Commission on Accreditation of Ambulance Services (CAAS)

Non-mandatory

The Commission on Accreditation of Ambulance Services (CAAS) was established to encourage and promote quality patient care in America's medical transportation system. CAAS is an independent Commission that established a comprehensive series of standards for the ambulance service industry. CAAS standards are designed to increase operational efficiency and clinical quality, while decreasing risk and liability to the organization. The process includes a comprehensive self-assessment and an independent external review of the EMS organization.

Like the CPSE accreditation process, the lead consultant does not recommend the department begin the accreditation process, but rather use the performance indicators and benchmarks set up for the evaluation process as a guide in developing policies and procedures for the EMS aspects of the department.

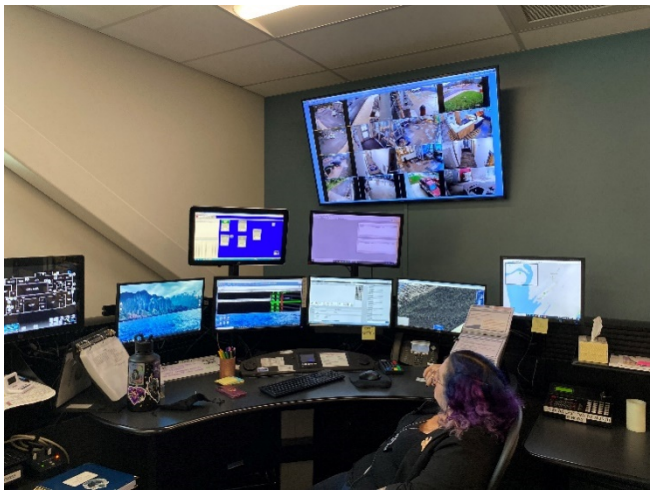
RECOMMENDATIONS

- *Develop a plan to purchase/upgrade all SCBA so that they are compliant with the same edition of NFPA 1981, thereby operating with the same options and safety standards.* ***Priority 1***
- *Develop and implement goals and objectives through a strategic planning process to utilize NFPA 1720 as a performance benchmark standard.* ***Priority 3***
- *Make every effort to comply with the medical standards as established per NFPA 1582, including testing requirements, based on age and frequency of exams.* ***Priority 2***
- *Work to build a process where rehab is available to all operating personnel at incidents involving a physiologic and/or emotionally challenging event. Rehab standards should comply with NFPA 1584 and should be addressed per policy within the department's standard operating guidelines.* ***Priority 2***
- *Establish, within the Standard Operating Guidelines, policies for use and maintenance of SCBA.* ***Priority 1***
- *Establish a "grooming policy" within the department's administrative policies requiring personnel to be clean shaven when responding to calls with no facial hair that comes between the sealing surface of the facepiece and the face.* ***Priority 1***
- *Establish an annual training plan that incorporates required OSHA topics.* ***Priority 2***
- *An ISO™ classification of Class 04/4X is a very good rating. The department should work to stabilize the current department operations to maintain this rating during the next review. At this point the lead consultant does not recommend committing resources focused solely on reducing the overall rating.* ***Priority 5***
- *Utilize the performance indicators and benchmarks from the CPSE accreditation process as a guide when developing policies and procedures for the Department.* ***Priority 5***
- *Utilize the performance indicators and benchmarks from the CAAS accreditation process as a guide in developing policies and procedures for the EMS aspects of the department.* ***Priority 5***

Communications/PSAP/Dispatch

Emergency communication is managed by a joint PSAP (police and fire) operated by Skagway and housed in the public safety building. The center is under the command of the Skagway Police Department with direct oversight provided by a dispatch supervisor. The center receives 9-1-1 calls and then provides notification along with direct radio communication with units. The center is staffed 24-hours per day with one (1) telecommunicator who serves as both the call taker and dispatcher.

Figure 36: Skagway Communication Center



The communication center operates utilizing a Computer Aided Dispatch System (CAD) and Records Management System (RMS) produced by Spillman Technologies. Spillman is a wholly owned subsidiary of Motorola Solutions. The center is in the process of transitioning to a different CAD/RMS system.

Single Dispatch Console

One major deficiency of the current communications center is the lack of a second dispatch console. Even though the center operates with only one dispatcher on duty, the center lacks the infrastructure to pull in a second telecommunicator during times of high call volume or to assist with a labor intensive 9-1-1 call. In these instances, as the single telecommunicator works to obtain vital information from the caller(s), the actual dispatching of response units is often delayed. Additionally, the lack of a second console makes training of telecommunicators very difficult in that all training must be done on the "live console." To address these concerns, a fully functioning second dispatch console should be added ASAP.

Lack of a Backup Communications/PSAP/Dispatch

The communication center has no established backup. In the event of a catastrophic failure of the Skagway communication system due to equipment failure, weather emergency, total loss of electric power, or a fire within the public safety building, there exists no plan for call routing or emergency communication. This lack of planning places Skagway at significant risk related to a "blackout" event.

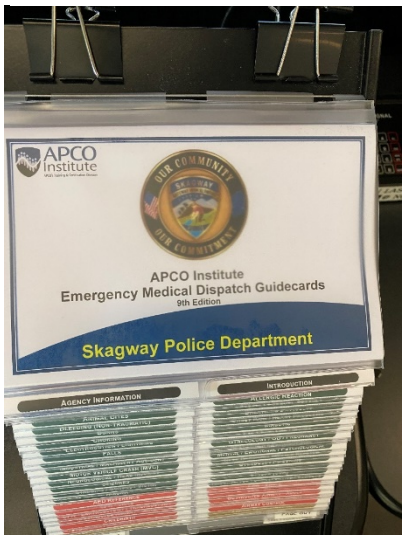
Typically, a communication center will work with a neighboring PSAP to develop a mutual-aid backup program where phone calls and dispatch/communication processes can be rolled seamlessly to the other communities PSAP. A good example would be Haines or Juneau, working together with Skagway to develop a dispatch mutual aid plan where one would cover for the other. A critical aspect of such a plan would be the continual sharing of information and joint training.

The lead consultant recommends the development of a backup PSAP plan be made a high priority.

Emergency Medical Dispatching

Emergency Medical Dispatching is a process where trained telecommunicators take callers through a series of steps to provide lifesaving medical care prior to the arrival of the fire department. Some of the most important types of incidents where pre-arrival instructions have the greatest impact is in the delivery of CPR, usage of AEDs, choking, actions to stop bleeding, and childbirth. These pre-arrival instructions are scripted and provided using flipchart guide cards. To provide this service, Skagway is currently using APCO Institute Emergency Medical Dispatching Guide Cards, 9th Edition.

Figure 37: Skagway's EMD Guide Cards



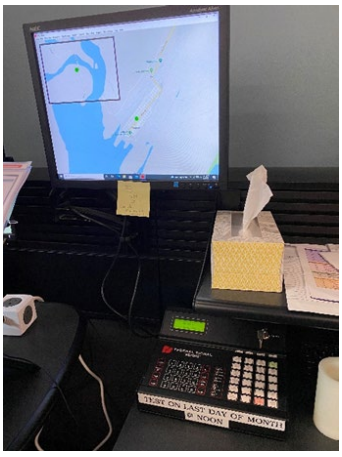
APCO provides a similar guide card program for fire response. These cards assist the telecommunicator in the victim evacuation process and provide information to help better identify specifics of the incident, including special response needs. This can then be relayed to responding fire personnel. This added pre-arrival insight helps to determine apparatus response needs while also providing a level of intelligence/pre-arrival size-up to responding personnel.

The consultant recommends that Skagway incorporate fire service dispatch guide cards into the call taking/pre-arrival instruction process.

Tsunami Alert System

The regional Tsunami Alert System is managed by the dispatch center. It is a separate, standalone system outside of CAD-- providing an increased level of security in preventing accidental activations. It is tested on the last day of each month.

Figure 38: Skagways's Tsunami Alert System



The system also has the capability for telecommunicators to broadcast verbal messages as part of the evacuation process. This verbal messaging component can be beneficial beyond just Tsunami alerts in that other emergency messages can be passed on via the system as well.

Call Processing Standards

Several standard-setting bodies exist within the emergency services communication field.

- APCO - Association of Public-Safety Communications Officials
- ANSI - American National Standards Institute
- NENA – National Emergency Number Association
- NFPA – National Fire Protection Association

Although each have their specific areas of focus, all agree on a standard template related to call processing. This is important since NFPA 1720 establishes several benchmarks for response times that have a direct tie to quality customer service. These benchmarks only work if call processing times are held to a strict standard of emergency responder notification.

Table 9: Emergency Call Processing Standards

Emergency Call Processing Standards		
PSAP Function	**Process Time Standard**	**Performance Criteria**
9-1-1 Calls Answered:	≤15 Seconds	90% of the time
	≤20 Seconds	95% of the time
Time to Dispatch:	≤60 Seconds	90% of the time
	≤90 Seconds	99% of the time

Table 10: Emergency Call Processing Flowchart

Emergency Call Processing Flowchart						
Event *(Something happened requiring emergency assistance)*	**Call Initiated** *(Call placed to 9-1-1 requesting help)*	**Call Rings at PSAP**	**Call Answered**	**Call Processing** *(Determining the nature of the emergency & call location)*	**Call Entry** *(Entering call information into CAD)*	**Call Dispatch** *(Emergency responders notified of the call)*
		15 - Seconds	**60 - Seconds**			

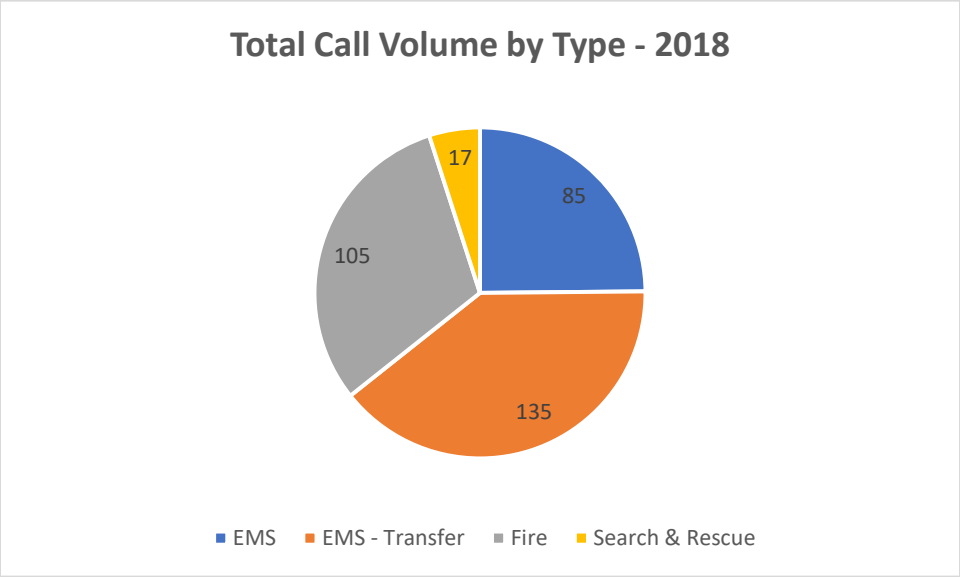
Currently Skagway has no established protocol related to call processing. A policy needs to be established with a goal of ≤60 Seconds 90% of the time. Monthly quality assurance/quality improvement reviews need to be conducted of call processing and modifications/corrections made to address this important standard.

Skagway Call Volume

These graphs depict the total responses by the fire department in calendar years: 2018, 2019, 2020. The call types indicate the following:

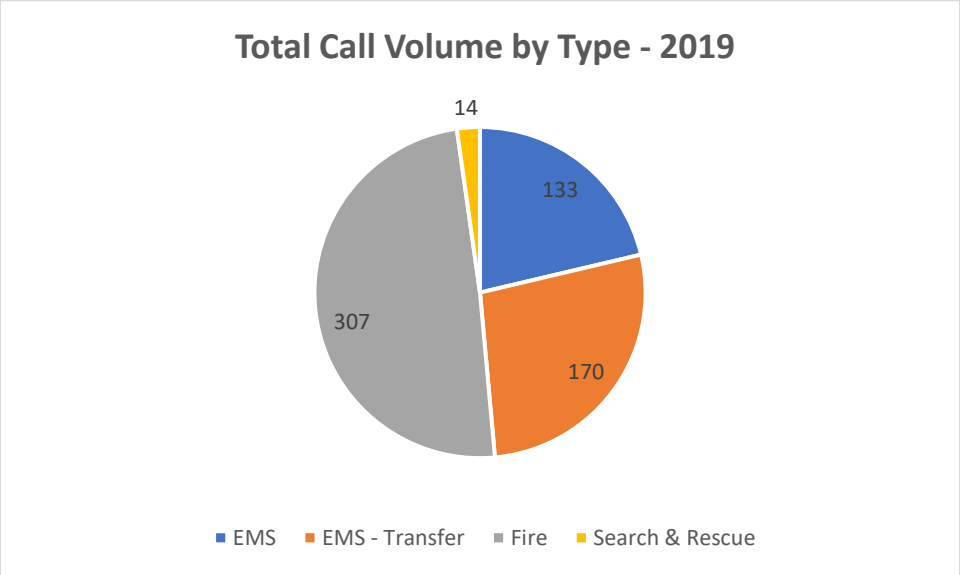
- EMS: All calls for Emergency Medical Services – excluding transfers
- EMS Transfers: All calls for Emergency Medical Service Transfers (i.e., Ship to Medevac, Clinic to Medevac, etc.)
- Fire: All calls for a fire response (all NFIRS Codes excluding 300 Series)
- Search & Rescue: All calls for search and rescue

Figure 39: Skagway's Total Call Volume by Type - 2018



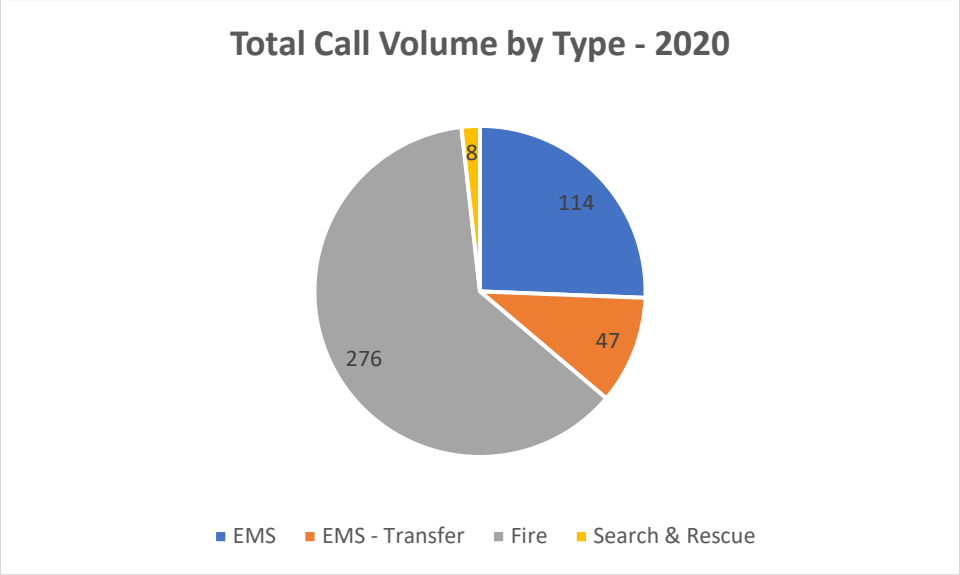
Total Calls for 2018: 342

Figure 40: Skagway's Total Call Volume by Type - 2019



Total Calls for 2019: 624

Figure 41: Skagway's Total Call Volume by Type - 2020



Total Calls for 2020: 445

When comparing call numbers generated by CAD tickets against fire department NFIRS reporting, a large discrepancy was identified. There should be no variation in these numbers (i.e., there should be an NFIRS report for every CAD ticket).

Table 11: Variation between Skagway's NFIRS and CAD Reporting

Year	NFIRS (As reported by Fire)	As reported by Dispatch	Difference
2018	345	342	3
2019	331	624	293
2020	119	445	326

When anomalies like this are seen, the error is almost always on the part of the fire department. The CAD generates tickets based on calls entered by the telecommunicator. Therefore, it is almost impossible to have an error coming from the CAD related to the number of calls. Conversely, someone from the fire department is required to write a report for all calls. If the fire personnel do not do this work, discrepancies occur. These discrepancies are problematic for several reasons:

- Not all calls for service are being counted. This results in the fire department looking like they handle less calls than they actually do.
- Proper call data is not transmitted to the Alaska State Fire Marshal's Office and, ultimately, to the United States Fire Administration related to call response data. The Alaska State Fire Marshal's Office sees this reporting as important and has a penalty process for departments who fail to submit their data.
- The actions taken by the fire department when working at a call is not documented. This creates a significant liability for both the borough and the responding firefighter. The general mantra related to emergency service documentation is, "if it's not documented – it wasn't done." Therefore, if the fire department is responding to calls and not documenting their actions, there is no proof that the response occurred and that services were delivered to the caller.
- As part of a Freedom of Information Act (FOIA) request related to a call for service (i.e., fire, EMS, Search and Rescue, Fire Alarm, Vehicle Crash, etc.), typically the request asks for all reports including information generated by dispatch related to the call-in question. When it is found that no fire report exists, yet a CAD ticket was generated, there is the potential for scrutiny and litigation depending on the reason behind the FOIA.
- If the borough has a legal suit brought against the fire department, reporting is the best protection. If reports do not exist when information from CAD indicates that it should, these discrepancies will likely be interpreted as credence for justification of the suit.

When this discrepancy was discovered, the lead consultant immediately discussed the situation with the Interim Fire Chief. The Interim Chief indicated that the former fire chief had directed staff to stop doing documentation on certain types of incidents that he categorized as "public service." Under this directive, the department also stopped tracking individual fire alarms occurring during a storm or power outage and simply listed them on one report. This is not appropriate and does not provide information documenting the fire department's response and actions.

It was also discovered during this discussion with the Interim Fire Chief that the directive indicated that response rosters (volunteers responding) should be omitted except for the personnel who went out on the apparatus. This also is not appropriate. For a volunteer fire department, it is important to document available responders. This failure to document the number of personnel available to respond has the potential for a detrimental impact to Skagway's ISO rating.

The Interim Fire Chief indicated that she would reverse this directive immediately.

The department needs to implement a policy where all CAD tickets generated have a corresponding NFIRS report written including a narrative of actions taken and including the names of all responding personnel (paid and volunteer).

Call Times

An important data marker to track is call times. Call time data provides an overview of efficiency in getting responders to the scene to provide the services needed. Two important factors related to response time are:

- Permanent brain damage begins after only 4 minutes without oxygen, and brain death can occur as soon as 4 to 6 minutes later.
- A fire has the potential, depending on the fuel source, to double in size every 30 seconds.

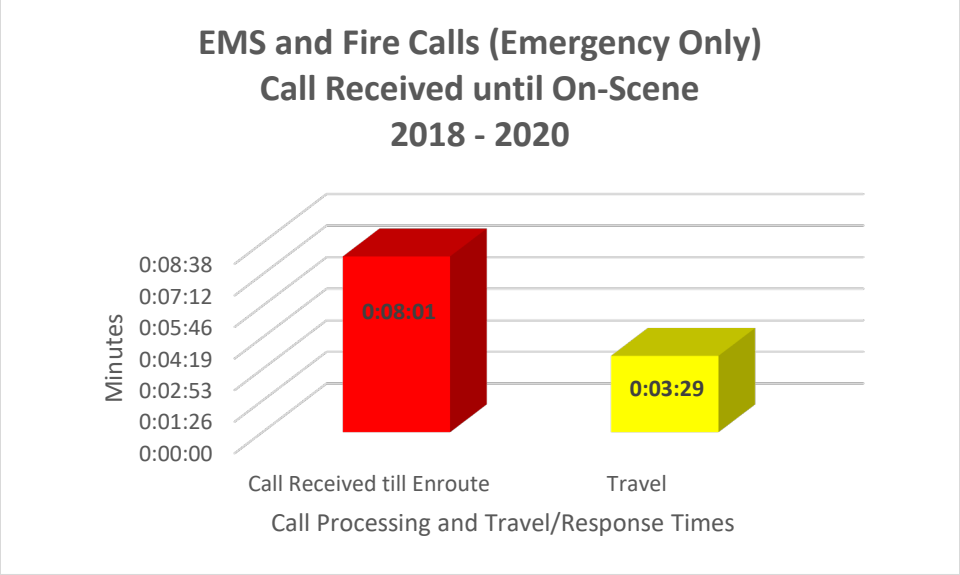
In evaluation of Skagway's call times based on data pulled from CAD, response indicators are defined as follows:

- Page to Enroute: The time from (when) the 9-1-1 call is received until the fire department is enroute/responding to the call.
- Travel: The time from when the first unit begins to respond until it arrives at the call's location.
- Time on Scene: The total time fire department units are on the scene.
- Total Call Time: The total time from when the 9-1-1 call was received until all fire department units are clear.

Table 12: Skagway Call Times

Call Times: Received to Clear				
2018	**EMS**	**EMS - Transfer**	**Fire**	**Search & Rescue**
Page to Enroute	0:09:15	0:38:21	0:05:08	2:32:22
Travel	0:05:12	0:09:05	0:02:47	1:00:07
Time on Scene	0:49:00	0:51:34	0:22:00	1:03:08
Total Call Time	0:53:43	1:32:00	0:28:09	4:47:01
2019				
Page to Enroute	0:11:01	0:29:26	0:06:50	0:24:37
Travel	0:03:51	0:11:44	0:03:13	0:16:04
Time on Scene	0:46:02	1:07:42	0:16:28	1:44:00
Total Call Time	0:54:31	1:28:14	0:15:49	2:06:16
2020				
Page to Enroute	0:08:22	0:32:28	0:07:31	0:42:31
Travel	0:01:48	0:16:09	0:04:03	0:07:20
Time on Scene	0:33:14	0:55:05	0:13:44	2:09:09
Total Call Time	0:35:24	1:21:35	0:10:50	2:18:06

Figure 42: Call Processing and Response Times for Skagway (Emergency Calls Only)



Based on this review, the 3-year average for "Page to Enroute" is around 8-minutes. This means that between the call processing time and the average travel/response time, it takes 11.5 minutes for help to arrive after calling 9-1-1. When considering the data related to brain death and fire growth, this time is excessive, especially for a relatively small town with on-duty emergency responders.

This lengthy response has two key factors that impact the times.

1. The amount of time it takes for the telecommunicator to process the call and notify the fire department (should be ≤60 seconds).
2. The amount of time it takes for the fire department to begin responding to the call. This factor is referred to as "turnout time." Both the NFPA and the Center for Public Safety Excellence have set an ≤80-second standard for a staffed fire hall.

To address Skagway's lengthy time, two policy changes are recommended:

- Since the dispatch center operates with only one telecommunicator (TC), it is impossible for the TC to simultaneously dispatch the call and provide Emergency Medical Dispatching (EMD) instructions. Therefore, the TC should obtain the information and dispatch the fire department before beginning EMD. As an example, an ambulance call can be dispatched using the following terms:
    - A subject ill
    - A subject injured
    - Motor vehicle accident with injuries

  This would get fire personnel moving within their ≤80 second turnout time standard.

  While the fire department is preparing to respond (turnout time), the TC could then implement EMD with the caller. When the responding apparatus begins their response to the scene, the TC can then update them on the additional information obtained during EMD and any pertinent pre-arrival instructions given.

- The fire department needs to establish policies requiring in-house personnel to maintain an ≤80 second turnout time. Turnout times need to be statistically monitored and corrected as necessary.

Quality Assurance (QA)/Quality Improvement (QI)

The dispatch supervisor has developed and implemented an excellent quality assurance rating system that is applied to all 9-1-1 calls coming into the PSAP. The system asks several questions related to how the call was handled and then applies a numerical rating to each question. The process provides a tremendous overview of the incident. This process needs to be updated to include call processing times.

Table 13 details the categories reviewed and the possible points.

Appendix B includes the full QA/QI documents.

Table 13: QA/QI Dispatcher Rating Schedule

Fire		EMS		Police	
	POSSIBLE POINTS		POSSIBLE POINTS		POSSIBLE POINTS
Interview Questions	365	Interview Questions	460	Interview Questions	595
CAD Skills	150	CAD Skills	100	CAD Skills	150
Telephone Protocol/Skill	285	Telephone Protocol/Skills	265	Telephone Protocol/Skills	285
Supervisor's Overview	100	Supervisor's Overview	100	Supervisor's Overview	100
Overall Score	900	Overall Score	925	Overall Score	1130

Problematic Dispatch Procedure

From time-to-time the communication center will receive a call that does not clearly fit into an "emergency" category, so instead of immediately processing and paging the call, they contact the on-duty fire department personnel and/or the duty officer. The telecommunicator relays the information they have received, and the fire department personnel then advise on how to process the call. This is a standard practice in most fire departments regardless of paid or volunteer.

In Skagway's case, it seems that a practice has developed where the on-duty staff will simply respond to these calls without paging the volunteers. The call is processed by the communication center appropriately by "punching a ticket" and collecting response data, but no page is sent out alerting the volunteer and off-duty personnel.

During interviews, several volunteer responders identified this practice as a concern and complained that it makes them feel "not needed and not wanted." Volunteer responders join and continue to be engaged in Skagway Fire Department because they are motivated by responding to calls, both emergency and non-emergency. They want to be part of the solution, and they want to feel needed. When blocked from responding to these calls – not because they were not available, but because they were never notified—severely impacts a volunteers motivation to be part of the department.

Although not a dispatch procedure per se, and the lead consultant is confident that the practice is being driven by the fire department, a procedural change needs to occur. The lead consultant has included the recommendation in the Communications/PSAP/Dispatch section of the report only because of the direct linkage between call taking, dispatching, and fire department operations.

Going forward, it is recommended that "non-emergency/unusual service request calls" be handled as follows:

1. The telecommunicator does their absolute best to determine the extent of the situation and exactly what the caller is requesting.
2. Notify the on-duty shift commander and advise of the situation.
3. The on-duty shift commander will determine how to respond.
4. The fire department will be "paged" and members directed to respond to the fire hall where they will stand by awaiting direction from the shift commander and/or their designee.
5. Call processing will occur per policy (i.e., create a ticket and run number, log times, etc.)
6. NOTE: In the rarest of circumstances based on the sensitivity of a situation, a deviation from this practice may occur. A deviation should be the exception and not the rule.

RECOMMENDATIONS

- *A fully functional second dispatch console should be added ASAP.* ***Priority 4***
- *The formalized backup PSAP plan needs to be developed and instituted via an interlocal agreement. An ongoing training plan with the selected backup PSAP needs to be established.* ***Priority 3***
- *Continue providing Emergency Medical Dispatching using guide cards. Incorporate into the fire service dispatch protocol the use of guide cards for fire response.* ***Priority 4***
- *Establish a policy for call processing. A policy goal should be ≤60 Seconds 90% of the time. Monthly quality assurance/quality improvement reviews need to be conducted to determine compliance.* ***Priority 3***
- *Implement a policy where all CAD tickets generated have a corresponding NFIRS report written including a narrative of actions taken.* ***Priority 1***
- *Implement a policy where all responding personnel are tracked within the NFIRS report.* ***Priority 1***
- *Implement a policy where telecommunicators page the fire department utilizing generic response information to maintain a ≤60 second call processing standard. Provide EMD services post paging. Statistically monitor monthly and make corrections as necessary.* ***Priority 1***
- *Implement a policy requiring a ≤80 second turnout time for in-house fire department personnel. Statistically monitor monthly and make corrections as necessary.* ***Priority 1***
- *Continue the current quality assurance/quality improvement process for 9-1-1 call handling.* ***Priority 5***
- *Implement a policy in which all calls for service are paged, thereby notifying both volunteer and off-duty personnel of a fire department response.* ***Priority 1***

Staffing

Fire Service Staffing Options

A variety of compensation models exist for fire service personnel. Each model has both positive and negative attributes. It would be impossible to say that one model is better or more efficient than another. The system(s) utilized should depend upon the unique needs of individual communities/departments. In essence, "one size does not fit all."

In January 2021 FEMA/U.S. Fire Administration published a report on the number of fire departments in the U.S., their staffing models, and the services provided. Participation in this study was voluntary with 27,201 departments participating. This is estimated to be 92% of U.S. departments. Participating departments from the State of Alaska represent the following compensation models:

Table 14: US Fire Administration FD Compensation Model Study - Alaska

Alaska Fire Departments – Compensation Models			
Volunteer	Mostly Volunteer	Mostly Career	Career
58.4%	29.9%	1.3%	10.4%

Skagway Fire Department participated in this study and is counted as "mostly volunteer."

The study also looked at the specific services provided by registered departments. This is important because it provides valuable insight into the multifaceted/all hazard service levels needed/provided by today's global fire service.

Table 15: Services Provided by U.S. Fire Departments - January 2021

Percentage of Fire Departments Providing Specialized Services – January 2021	
Specialized Service Provided	**Percentage**
Vehicle Extrication	77.4
Fire/Injury Prevention and Public Education	63.7
Wildfire/Wildland Urban Interface	62.9
Basic Life Support	59.6
Emergency Medical Services (EMS) non-transport	39.6
Technical/Specialized Rescue	35.6
Fire Investigation/Fire-Cause Determination	35.3
Fire Inspection/Code Enforcement	34.9
Department (in-house) Training Academy	21.9
Advanced Life Support	21.2
EMS Ambulance Transport	21.0
Hazmat Team	17.9
Juvenile Fire-Setter Intervention Program	13.8
Airport/Aviation	8.0
Fireboat	4.6

Responders – Compensation Types

Volunteer

Volunteer members are simply unpaid professional firefighters/emergency responders. They may receive a small annual stipend designed to cover use of their personal vehicle in responding to calls, damage to clothing, and other incidental costs of being a volunteer. Beyond this stipend, they receive no direct compensation.

Since volunteers receive no compensation, the age-old question that continues to arise when discussing these type responders is whether they are employees of the department. Fortunately, the Social Security Administration provides an answer. Under the common law test (a guide used by the IRS to determine if a worker should be classified as an employee), a volunteer firefighter is considered an employee when they are subject to the will and control (i.e., how he or she will perform the work) of the person (or entity) for whom they perform services. In other words, if a volunteer firefighter is expected to perform specific skills and tasks under the direction of a supervisor, incident commander or as part of a fire department chain-of-command, then they are considered employees. Receipt of, or absence of the receipt of, payment for services does not alter the common law employment status of a volunteer firefighter, thereby making the volunteer firefighter an employee of the fire department where they provide services. (Social Security Administration, 2012)

The key to success in operating a volunteer department is the ability to find dedicated individuals, who have the desire and time to become proficient in the delivery of critical firefighting and other lifesaving services. Likewise, volunteer departments must spend considerable time and effort in recruiting and maintaining its members.

Managing volunteer employees is challenging and time consuming. Fire chiefs leading volunteers must work to meet the needs of their members while simultaneously serving the needs of the organization and the community. Most volunteers do not join and remain members of volunteer departments for monetary reasons. The reasons often range from a sense of community to the recognition of being a firefighter. Fire chiefs (and their officers) need to project a positive and enthusiastic attitude toward the department and the work that the volunteers do. The goal is to have the firefighters continually say to themselves, "I can't believe I get to do this!"

Successful volunteer fire departments require and expect a great deal from their people. People do not want to volunteer their time with an organization that is not respected and does not have high standards of performance. Fire chiefs need to continually balance the expectations against available time, while not allowing those who don't pull their weight to drag down the motivation of those who give more than their share. Fire chiefs often struggle to balance the number of names on a volunteer roster against the number of active volunteers. In most cases, simply having names on a roster with little to no participation ends up hurting the organization in the long run.

Lastly, to manage a volunteer organization successfully, fire chiefs need to be imaginative leaders who work to evaluate situations and eliminate obstacles that prevent people from volunteering.

Paid-on-Call

Paid-on-call (POC) members are very similar to volunteers with the exception that they receive a level of compensation for their participation. Most often POC members are compensated a flat stipend per call response and/or training. Some POC departments will compensate members with an "on-call" rate for those who have agreed to be available and are able to respond during a specific time. This practice is commonly used within departments that provide ambulance transport services and are required to have responders with a specific level of training/certification available and responding.

Part-time/Paid-on-Premise

Part-time/Paid-on-Premise employees are typically scheduled to provide on duty/in the fire hall coverage during certain times of day or days of the week. These members are often used to supplement full-time staffing levels or fill in for full-time members who are off duty due to accrued leave, sick time, or training leave. Part-time/paid-on-premise members are usually required to possess a specific level of training (e.g., Firefighter 1, EMT-3) to be allowed to fill in for full-time members. Part-time/paid-on-premise members are usually compensated an hourly rate similar or just slightly less than that of the base rate for a full-time member.

Full-time (Career)

Staffing with full-time personnel ensures a certain level of immediate response to emergency calls. Having staff in the fire hall and ready to respond eliminates/reduces the time spent waiting for off-duty personnel to arrive at the fire station. Full-time employees add a degree of safety to the emergency team since the individuals work and live with each other and have a greater opportunity to develop a team environment, which is especially valuable on the emergency scene. Full-time employees are often more involved in the daily activities of the fire department and can usually handle a variety of duties not suited for part-time or paid-on-call volunteer employees.

The drawback to full-time personnel is the cost of salaries and benefits. The expense associated with these employees often make them cost prohibitive.

Types of Departments based on Responder Compensation

Volunteer or Paid-on-call (POC)

These style departments are staffed by volunteer or paid-on-call (POC) members. The major challenge with this type of department is getting and maintaining members as well as their availability to respond to calls.

(See *Responders – Compensation Types: Volunteer*)

Combination

Combination departments vary from jurisdiction to jurisdiction. The commonality is that full-time career personnel as well as volunteer/paid-on-call/part-time/paid-on-premise personnel are partnered together to operate the department and manage the call volume.

Some of these departments utilize career personnel to supplement the volunteer/paid-on-call staff (i.e., more volunteers than full-time career responders) while others utilize volunteer/paid-on-call staff to supplement the career personnel (i.e., more full-time career responders than volunteer/paid-on-call responders). Skagway falls into the first of these two categories. When managed correctly, combination departments are efficient while offering a high level of fiscal responsibility.

The drawback of combination departments is the fact that they are incredibly hard to lead. Leaders need to create a level of synergy between personnel making them feel valued and an important part of the team. Fire chiefs and their officers need to continually manage the motivational needs of the volunteer/paid-on-call members while not allowing the full-time personnel to overshadow them. Likewise, the full-time members need to also feel valued. Part of this is includes not forcing them to pick up after volunteer/paid-on-call members or doing the work the volunteer/paid-on-call members do not want to do. Creating a team atmosphere is essential.

A few proven strategies for leading combination departments are:

- Expectations: Set expectations high regardless whether the member is volunteer, paid-on-call, part-time or full-time (career).
- One Set of Rules: When it comes to rules/policies, there is only one set for all members.
- Qualifications: Ideally, they should be the same; however, the very nature of the time available to achieve a certification is different. Therefore, set the minimal qualifications for each position, and encourage advancement where possible.
- Drop the Labels: All personnel who work for the department are employees regardless of pay status. Don't refer to them as a "volunteer firefighter" compared to a "full-time firefighter." They are all Skagway firefighters.
- Reward Success: Praise in public when members achieve a goal.
- Uniformity for Uniforms: Uniforms and patches should be identical for all categories of employees.
- Uniformity in Personal Protective Equipment: Personal Protective Equipment is designed to protect the providers regardless of pay status. Part-time or career staff getting the new stuff and volunteer/paid-on-call getting the hand-me-downs is a great way to divide a team.
- Be a Visible Leader: Know your team and find solutions to their challenges. Standard office working hours will not apply when managing volunteer/paid-on-call members. If volunteer/paid-on-call members are only available on evenings and weekends, they need to see and hear from the fire chief and leadership team.

Full Time (Career)

Career departments are staffed fully with personnel who work full-time as firefighters. Typically, these departments have a minimum number of personnel on duty 24/7/365. They also employ additional full-time members who are used to backfill other full-time members, thereby covering for accrued leave time or sick time. These additional members allow the department to maintain the established minimum staffing level.

Fully career departments are expensive. Additionally, most career departments transitioned to this level because they tried to operate as a combination department and failed. The failure is most commonly traced back to poor leadership. The needs of the members (full-time, part-time, POC and volunteer) were not being met. When this begins to occur, departments typically begin to see their non-full-time personnel diminish in numbers thereby requiring additional full-time personnel to handle the workload. If not recognized and corrected quickly, the department will soon find itself in a position where no option exits other than to create a full-time/career fire department.

Skagway's Staffing Model

Skagway operates as a combination department. The department employs full-time staff along with volunteers. The lead consultant believes that the combination model is correct for Skagway; however, a few modifications are suggested.

Skagway's current organizational structure related to full-time career staffing includes the following:

- Fire Chief (Pay Grade 21)
- EMS Director (Pay Grade 17)
- Fleet Manager/Emergency Responder (Pay Grade 16)
- Fire Inspector/Training Coordinator/Emergency Responder (Pay Grade 15)
- Quartermaster/Maintenance Technician/Emergency Responder (Pay Grade 14)
  ** Not funded in FY'21

Each of these position works an 8-hour Monday – Friday schedule. Each of the full-time members is required to participate in a rotating on-call schedule as the duty officer. The duty officer is compensated $5 per hour to be on-call and then paid at a time-and-a-half rate whenever they are required to respond.

The department also employs volunteer emergency responders. Some of these responders operate as firefighters, some as an EMT only, some as Search and Rescue only, with some being fully trained in all disciplines.

As described in the **Introduction** section of this report, volunteer staffing is critically low, and all full-time positions are currently vacant except for the EMS Director. The EMS Director is now serving as the Interim Fire Chief.

Suggested Staffing Model

Full Time Staff

The lead consultant believes that five (5) full-time career personnel are needed. Included is an optional recommendation to move the Permitting Officer to the fire department, which would bring full-time staffing to a total of six (6).

The consultant does not recommend that the full-time positions/job assignments be maintained at their current levels. The number of employees should remain the same, but their assignments/duties should be changed. This will also require a realignment of pay grades and steps, grouping personnel based on job assignments as appropriate.

Recommended positional changes are as follows:

- EMS Director – **ELIMINATE**
- Fleet Manager/Emergency Responder – **ELIMINATE** (Transfer fleet maintenance responsibilities to Public Works)
- Fire Inspector/Training Coordinator/Emergency Responder – **CHANGE TRAINING COORDINATOR TO TRAINING OFFICER**
- Quartermaster/Maintenance Technician/Emergency Responder – **ELIMINATE** (currently not included in the FY'21 budget)

New positional assignments are recommended as follows:

- Fire Chief:
    - The department needs a full-time career fire chief to manage the operations of the department.
    - This position should be a department head and fall under the same standard as outlined in the Personnel Policy Manual: Section H – Applicability.
    - The fire chief should be a salaried, FLSA exempt, position.
    - The fire chief should be expected to maintain regular office hours while being allowed to flex their time based on meetings, drills, and emergency calls that occur after hours and on the weekends.
    - The fire chief should take on-call shifts as necessary to assist in managing the workload of the department.

- Training Officer (Captain Rank):
    - The department needs a full-time career training officer to manage the training for both full-time career and paid-on-call/part-time staff. This position should be filled with an individual who is a professional educator and who has a keen understanding of the needs of the adult learner. They also need to be able to develop options for providing flexible training opportunities for the non-full-time employees.
    - This position should be at a supervisory level and hold the rank of Captain. This position should fill a supervisory role like the Police Sergeant.
    - The training officer should be expected to maintain regular office hours while flexing their overall schedule to ensure quality training is provided to staff at all levels of the organization.
    - The training officer/captain should take on-call shifts as necessary to assist in managing the workload of the department.
    - **This position will replace the current Training Coordinator.**

- Firefighter/Medics (3):
    - The department needs three (3) full-time firefighter/medics. These individuals need to be training to the Firefighter 1 level and hold a minimum of EMT-3 (paramedic preferred).
    - These personnel will each be assigned to work a 24-hour-on / 48-hour-off schedule.
    - When on duty, they will be responsible to handle all emergency calls/calls for service and shall work to coordinate the response of paid-on-call/part-time members.
    - **These positions will replace the current EMS Director, Fleet Manager, and Quartermaster/Maintenance Technician.**

- Permitting Officer **(OPTIONAL)**
    - As outlined in the section titled **Inspections/Public Education** an opportunity exists to transfer the Permitting Officer to the fire department under the command of the Fire Chief.
    - If this transfer is implemented, the permitting officer should be expected to maintain regular office hours (Monday – Friday).
    - The permitting officer should not expect to regularly take on-call shifts although it may be needed from time-to-time.
    - The permitting officer should be trained as a firefighter/medic including all needed training and certifications necessary to function as the permitting officer.
    - The permitting officer will not normally be considered part of regular on-duty emergency staffing but will be available to respond when additional staffing levels are required (e.g., multiple apparatus response).

Paid-on-call (POC)

The volunteer program should be eliminated, and all members converted to a paid-on-call (POC) status. Skagway already provides a stipend to volunteer members based on call response. The problem is that the program uses a calculation matrix that is unwieldly and difficult to understand. Under the recommended paid-on-call system, members would be compensated for response to calls, attendance at training, and paid an on-call stipend for covering shifts. Below is an example of a possible stipend program.

NOTE: Dollar values used in the below example are inserted only as placeholders/examples. Rates selected for each category are at the discretion of Skagway leadership.

Table 16: Example of a POC Compensation Schedule

Paid-on-Call Compensation Schedule & On-call Policy		
Activity	**Certification Level**	**Pay Rate Per Call/Training**
Call Response	Driver/EMR/Firefighter EMT – Basic (EMT-1) EMT – Advanced (EMT-3, Paramedic)	$10 $15 $20 $25
Training	Driver/EMR/Firefighter EMT – Basic (EMT-1) EMT – Advanced (EMT-3, Paramedic)	$10 $15 $20 $25
Scheduled On-Call	Any Certification Level	$50 flat rate per 12/hr. shift

On-call rules apply as follows:
• Members working on-call shifts will receive a $50 flat rate coupled with the applicable call rate for call responses.
• Shifts will be 12-hours:
  ○ 0700 – 1900 (7 am to 7 pm)
  ○ 1900 – 0700 (7 pm to 7 am)
• Members can work more than one consecutive 12-hour shift.
• Members who are unable to cover the entire 12-hour shift are responsible to find relief coverage for the uncovered hours.
• Staffing levels will be two on-call POC members per 12-hour period.
• On-call members are welcome to stay at the fire hall during their shift, but it is not required. On-call members not at the fire hall must remain in the general vicinity of Skagway.		

Part-time/Paid-on-Premise Staff

A part-time/paid-on-premise staffing program needs to be developed specifically to serve as a replacement program for full-time career staff who are off using accrued leave, sick time, or training leave. At no point should a shift not be filled with an in-house staff member. Once the new 24-hour full-time firefighter program is initiated the fire hall should be staffed 24/7/365.

Personnel working part-time/paid-on-premise staffing positions will be responsible for all aspects of the job normally done by the full-time member. Since the part-time members will be assuming the role and responsibilities of the full-time member, they should hold the following basic certifications:

- Firefighter 1
- EMT-3 (Paramedic Preferred)

Multiple benefits result from the initiation of a part-time/paid-on-premise program:

- It encourages paid-on-call members to advance their education and obtain the certifications needed to work shifts.

- It is a strong succession planning tool for paid-on-call members who are looking for a career as a full-time firefighter/medic (either at Skagway or another fire department).
- It provides a level of supervisory experience to members who are interested in stepping up and filling these roles.
- It eliminates/reduces full-time overtime for members required to work a double shift to maintain a 24-hour staffing level. This is safer for the full-time members while allowing them time off/better quality of life.

Budget for Paid-on-Call and Part-time Programs

The lead consultant evaluated the current impact to Skagway's budget related to the recommended changes. The following cost analysis/assumptions are provided. The numbers used assume a pay rate as an EMT-1 as provided in the examples listed above. Currently the department does not have any paid-on-call EMTs that are licensed at the EMT-2, 3 or Paramedic levels.

Table 17: Projected Costs for POC & Part-time Program

Projected Cost of POC and Part-time Program (not including training)			
Work Categories	**Staffing Level**	**Rates of Pay**	**Annual Cost**
POC On-call	Two (2) POCs responders will be on call each 12/hr. shift.	$50 stipend per responder per 12/hr. shift, the total cost per day is $200.	$73,000
POC Call Response	Assuming four (4) POCs responding on each call.	$15 at 500 calls	$30,000
Training	Assuming ten (10) POCs attend scheduled training.	$15 at 50 trainings each year lasting 3/hrs. each.	$7,500
Part-time/Paid-on-Premise Coverage	Based on current vacation accrual system, a 24-hr. employee would get six (6) shifts off annually. Also, if a 24-hr. employee would take three (3) sick days per year, this would equate to nine (9) 24-hr. shifts needing part-time coverage per firefighter/medic.	$22.61 per hr. at nine (9) 24-hr. shifts, times three (3) full-time firefighter/medics.	$14,652
		Total Cost of Program – First Year	**$125,152**

In an analysis of the FY'21 budget, the following pay categories could be used to cover the recommended changes. Based on the assumptions (examples) used, the recommended changes could be made within the dollars already approved in the budget.

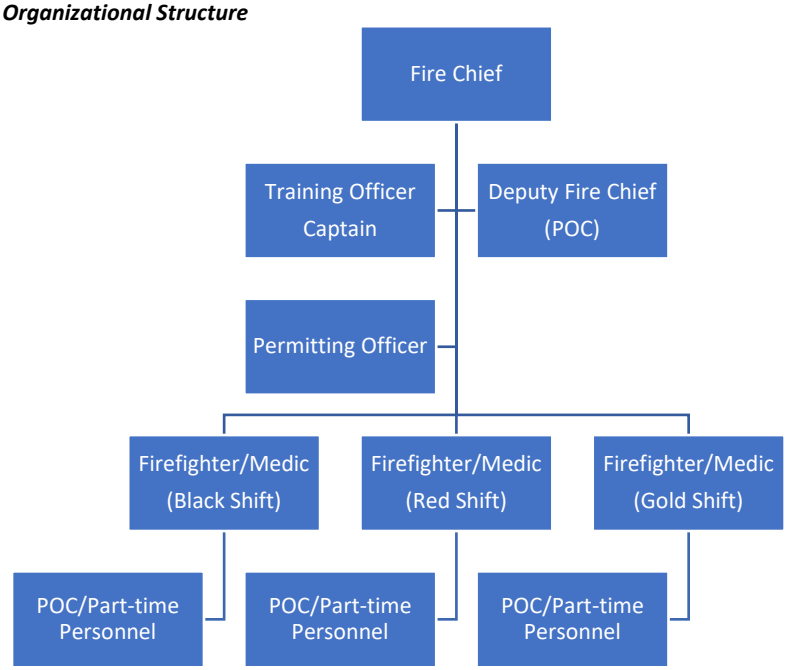
Table 18: Available FY'21 Funds for POC & Part-time Program

Available FY'21 Funds for use with POC & Part-time Programs			
Budget Code	**Account**	**Description**	**Dollar Value**
5130	Administration		
		Volunteer Reimbursement	$8,000.00
5170	Salaries		
		Officer and Duty Shift Stipend	$38,600.00
		Seasonal Responders	$60,853.53
		Lost Wages Compensation	$40,000.00
		Total Available	**$147,453.53**

Recommended New Organizational Structure

The following organizational structure is recommended based on the conversion from volunteer to paid-on-call including the changes to the full-time career positions.

Figure 43: Recommended Organizational Structure



Future Staffing Level – Option

Should the on-call paid-on-call program not be successful, the department will likely need to add additional full-time emergency responders. It is impossible to staff an ambulance with less than two (2)

responders. More than two (2) personnel are required to respond and handle a structural fire response. Therefore, the on-call program is a best attempt to cover the needed call volume with an acceptable level of emergency responders. If it becomes evident that the proposed program is not going to work, the next recommended step would be to hire three (3) additional firefighter/medics and place each on a 24-hour shift rotation (Black Shift, Red Shift, Gold Shift). This would give the department two (2) full-time responders per shift 24/7/365. The cost for the additional full-time responders would almost double what is now being spent for salaries and benefits.

Future – Administrative Assistant

The department would benefit from a full-time administrative assistant. The fire chief needs to spend the bulk of his/her time focused on managing the demands of the combination work group and responding to calls. This leaves very little time available to do the daily administrative tasks of managing the organization. A full-time administrative assistant would be able to do this work while simultaneously being a "presence" in the administrative offices of the fire department during business hours to answer phones, greet visitors and schedule appointments.

Support Track - Fire Corps

The department currently has a program for "support personnel" who do not regularly respond on calls and who exit to support non-emergency department activities. This should continue but be transitioned over to the Fire Corps program administered by the National Volunteer Fire Council (NVFC). Information from the NVFC website states:

Fire Corps® is a national grassroots effort to help fire/EMS departments enhance their services by engaging with community members to assist with non-emergency tasks. Whether they are conducting fire prevention and life safety education, installing smoke alarms, writing grants, managing a department's social media, or a myriad of other activities, community volunteers can make a real difference. Utilizing community support helps departments increase their capacity and allows first responders to focus on operational duties, training, and emergencies.

Figure 44: Fire Corps Logo

Fire Corps is administered by the National Volunteer Fire Council (NVFC). Through this program, the NVFC works to create valuable resources to foster local Fire Corps teams and increase department support. Resources include:

- *Training for departments and volunteers through the NVFC's Virtual Classroom*

- *Tools for departments to recruit for their Fire Corps program as well as a public web site to allow potential volunteers to find local opportunities through the NVFC's Make Me A Firefighter campaign*
- *Information to start and implement a Fire Corps program*
- *Information to recruit for and promote a local program*
- *Tools to help potential volunteers get involved*

Fire Corps members are not paid-on-call (POC) and should not be provided any type of stipend.

EMS Service Delivery Models

Although EMS delivery models are technically an operational issue, they are discussed in the staffing section since they have a direct linkage to staff training/certification/licensure.

Within Skagway Fire Department, EMS accounts for 68.43% of all calls for service. This makes EMS the leading call category (NFIRS Series 300). The chart below shows the nature of the calls by patient complaint for years 2018-2020. It also denotes the number of medevac transfers performed (cruise ship to aircraft / clinic to aircraft) as well as ground transfers to Whitehorse.

Table 19: EMS Calls by Nature: 2018-2020

EMS Calls by Nature: 2018 - 2020				
	2018	**2019**	**2020**	**3-Year Total**
Traumatic Injury: falls, lacerations, fractures, injuries from vehicle accidents, etc.	49	37	7	93
Abdominal Pain/GI Issues	23	19	4	46
Chest Pain	7	15	4	26
Other (unspecified medical complaint)	16	4	6	26
Respiratory Distress	10	12	3	25
Altered Level of Consciousness	10	2	6	18
Syncope (fainting)	9	4	1	14
General Illness/Unspecific	4	8	1	13
Refusal of Transport/No Patient on Arrival	1	7	2	10
Seizures	4	5	1	10
CVA (stroke)	2	6	1	9
Poisoning/Drug Ingestion/Substance Abuse	2	3	2	7
Nausea/Vomiting/General Malaise	3	3		6
Cardiac Dysrhythmia	2	2	1	5
Diabetic Issues		3	2	5
Generalized Pain	3	1	1	5
Sepsis (systemic infection)	4	1		5
Cardiac Arrest	3		1	4
CHF (congestive heart failure)	1	2	1	4
Central Nervous System Problems/Headaches	4			4
Allergic Reaction	1	1		2
Back Pain (Non-traumatic)		2		2
Cancer	2			2
Gynecological Issues		2		2
Hypotension/Hypertension (blood pressure issues)		2		2
Airway Obstruction	1			1
Behavioral/Psychiatric Emergencies	1			1
Dehydration		1		1
Heat/Cold Exposure			1	1
Invalid Assist		1		1
Transfer - Medevac	94	82	13	189
Transfer - Long Distance	2	4	3	9

Categories of Patient Care

EMS patient care is broken into two distinct categories based on the level of care needed.

- Basic Life Support (BLS): Includes non-invasive patient care designed to support critical body systems until the patient can be cared for by a health care provider administering corrective/definitive care.
- Advanced Life Support (ALS): Includes both non-invasive and invasive care designed to support or stabilize critical body systems. ALS care provides a level of diagnosis and intervention skills that work to either correct life threatening/time sensitive medical emergencies in the field or provide stabilizing care to patients who are seriously injured or ill, until they can be treated in a facility where corrective/definitive care can be provided, thereby reducing long term life impacting deficit(s).

Provider Levels

Field EMS care is provided by licensed emergency medical technicians that function in Alaska at four (4) distinct levels. Based on Skagway's remote location, the department's medical director has authorized an expanded scope of practice for all levels (i.e., Skagway EMTs can provide care within each certification level that is beyond what is recognized by the National Registry of EMTs).

- Emergency Medical Technician – 1:
    - CPR, AED, oxygen, ventilatory support, iGel supraglottic airway, and first aid procedures such as hemorrhage control and splinting
    - Administer the following medications:
        - Aspirin
        - Albuterol
        - Epinephrine (allergic reaction)
        - Oral Glucose
        - Narcan
    - Assist patients with use of their own medications
    - Test blood sugar
- Emergency Medical Technician – 2:
    - Perform all skills of an EMT-1
    - Measure end tidal CO_2
    - Start peripheral IV and IO
    - Administer the following medications:
        - 50% Dextrose
        - Benadryl
        - Cardia Epinephrine
        - Lidocaine for IO analgesic
        - Ondansetron/ Zofran (used for nausea and vomiting)
        - Nitroglycerine
        - Tranexamic Acid (TXA)

- Emergency Medical Technician – 3:
    - Perform all skills of an EMT-1 & 2
    - 12 Lead EKG
    - Manual cardiac defibrillation
    - Cardioversion
    - Transcutaneous pacing
    - Administer the following medications:
        - Atropine
        - Lidocaine (cardiac use)
        - Amiodarone
- Mobile Intensive Care Paramedic:
    - Highest level of pre-hospital EMS care
    - Perform all skills of an EMT-1, 2, & 3
    - Numerous additional medications and procedural interventions
    - Scope can be expanded to include management of hospital-based skills needed to complete critical care interfacility transports

Based on the patient complaint categories listed in the above chart compared against national standards for patient care, it is estimated that 51.43% of all patients should be treated at an Advanced Life Support level. Due to HIPPA regulations/restrictions the consultants were not able to review individual patient care reports to determine the exact level of ALS care needed (i.e., EMT-2, 3 or Paramedic).

Recommended Care by Skagway Personnel

Based on the above call nature analysis, the remoteness of Skagway's response territory, and the fact that Skagway provides search and rescue operations with prolonged victim retrieval times, it is recommended that the department make a concerted effort to always operate at the EMT-3 level. Additionally, a goal should be established to upgrade in the next 3-years to the Mobile Intensive Care Paramedic level.

To accomplish this goal, several staffing standards need to be established:

- All full-time career personnel should be dual role/cross trained holding expertise and certification/licensure as both firefighters and advanced life support EMTs. The minimum EMT certification should be EMT-3 with paramedic preferred. Full-time personnel should also be trained in search and rescue. See **Appendix E** for recommended Job Description.
- Part time/paid on premise personnel should meet the same standards as full-time career personnel.
- Paid-on-Call members should be encouraged to function within all categories (Fire/EMS/Search and Rescue) but should be allowed to function as a single role provider if that is their only area of interest. They should however be trained to support the other disciplines.

Critical Care Paramedics

From time-to-time the department is required to transport patients via ambulance to Whitehorse. In these instances, and based on the condition of the patient, the Clinic is required to send a provider along with department personnel to complete the transport because the patient care needs are beyond the scope of practice of the EMTs. Paramedics certified at the Expanded Scope – Critical Care Level would be able to conduct these transports without taking a provider from the Clinic thereby not impacting clinic staffing.

Paramedics trained to this level would also be able to assist medevac crews transporting patients from the clinic or cruise ships. Likewise, this level of care would have a positive impact on patient care provided by department personnel who accompany the US Coast Guard on medevac transports.

The allowable critical care paramedic billing rates are substantially higher when providing this service and would be a revenue enhancement for the city/borough. Once the upgrade to paramedic providers is complete, the department would do well to evaluate a move to the critical care paramedic level for use during transfers.

Community Paramedics

Community Paramedicine is an emerging healthcare delivery model that increases access to basic services by utilizing specially trained emergency medical service (EMS) providers in an expanded role. Community Paramedics care for patients at home under the supervision of a physician or advanced practice provider. Community Paramedics can expand the reach of primary care and public health services by using EMS personnel to perform patient assessments, outpatient and chronic care follow up, and mental health evaluations. Due to Skagway's remote location from hospitals and the limited access to health care professionals, Skagway's EMS providers, partnered with Clinic providers, could greatly enhance healthcare services in the greater Skagway area.

RECOMMENDATIONS

- *The department should be restructure for full-time career personnel as follows: Fire Chief, Training Officer – Captain, Firefighter/Medic (three personnel at this rank).* ***Priority 1***
- *The Permitting Officer should be transferred to the fire department and placed under the command of the fire chief.* ***Priority 2***
- *The volunteer program should be eliminated, and all members converted to paid-on-call (POC) status.* ***Priority 2***
- *A part-time staffing program needs to be developed specifically to serve as replacements for full-time career staff who are off using accrued leave, sick time, or training leave.* ***Priority 2***
- *The department's "support personnel" should be transitioned over the Fire Corps program administer by the National Volunteer Fire Council (NVFC).* ***Priority 4***

- *The department should make a concerted effort to always operate at the EMT-3 level. Additionally, a goal should be established to upgrade in the next 3-years to the Mobile Intensive Care Paramedic level.* ***Priority 2***
- *Once the upgrade to paramedic providers is complete, the department would do well to evaluate a move to the critical care paramedic level for use during transfers as well as investigate the need for a community paramedic program.* ***Priority 4***

Human Resources

Human Resources management is a major component of any organization. Its policies impact every member of the organization and can be an area of major litigation. Since the Federal Civil Rights Act of 1991 in which the burden of proof for discrimination changed from the employee to the employer, and the introduction of a jury trial, as well as punitive and compensatory damages, the human resource landscape has changed.

Prior to discussing most of the topics in human resources, one must first determine if the Department has volunteers or employees. Based on this information, the organization can determine which employment laws apply. This topic also involves a discussion of compensation under the Fair Labor Standards Act (FLSA).

Employee Definition

To evaluate the human resource practices of the organization, we must first clarify the definition of an employee. Keep in mind, the Department is a part of the Borough; thus, Federal and State labor laws apply, including the definition of an employee and the types of employees allowed under the Fair Labor Standards Act (FLSA). The Fair Labor Standards Act is the Federal law passed in 1938 to regulate minimum wages, overtime pay, equal pay, and child labor standards in employment. In 2004 the federal regulations were amended with clarifications to the federal exemptions for the overtime provisions as well as clarifications with municipal employees.

This section delineates the regulations of the FLSA as it applies to forms of employment including volunteer/paid-on-call. Thus, how the individuals are classified and how they are compensated will be the determining factors in the Borough's obligations under the FLSA. When Federal and State FLSA regulations conflict, the ruling is based on what is most beneficial for the employee.

FLSA Regulations

The FLSA covers a broad range of employers. An employer, unlike under other employment laws, does not need to employ a threshold number of employees to be covered. An organization must comply with the FLSA if the organization:

- *Is engaged in interstate commerce and has a gross income of $500,000; or*
- *Is a public agency; or operates a hospital, health care facility or school.*

There is no question the Fire Department is considered to be a public agency and thus falls under the FLSA provisions.

The next question to ask is what is an employee? The definition of an employee under FLSA is an individual who performs services for the 'employer.' If an individual is not an employee, he or she is not covered by the minimum wage, overtime, recordkeeping, and other provisions of the FLSA. The two areas to focus on for the Borough are as follows:

Volunteers/Paid-on-Call:

The FLSA provides a specific exemption for individuals who volunteer services to public agencies. The FLSA, however, exempts public employers from paying minimum wage and overtime to individuals who qualify as 'volunteer/paid-on-calls' – individuals motivated to contribute service for civic, charitable, or humanitarian reasons. An individual who performs services for a public agency qualifies as a volunteer/paid-on-call, if:

- The individual receives no compensation, or is paid *expenses, reasonable benefits, or a nominal fee* to perform the services for which the individual volunteered; and
- Such services are *not the same type of services* for which the individual is employed to perform for *the same public agency.*

If an individual meets the above criteria for volunteer/paid-on-call status, he or she will not be considered an employee covered by FLSA minimum wage and overtime provisions. *A public employer can pay a nominal fee to volunteer/paid-on-calls; the fee must not be a substitute for wages and must not be tied to productivity*. Thus, a paid-on-call member in a municipal environment, performing public safety responsibilities, and who does NOT receive compensation that is tied to productivity, such as an hourly wage, would also be exempt from the minimum wage requirements.

Paid-on-Call, Part-time or Paid-on-Premise Personnel

Individuals who receive some sort of compensation or nominal fee will have their employment status based upon how the fee is distributed. Two types of compensation are considered to be nominal fees by the Department of Labor (DOL) and continue to exempt the employee from the Fair Labor Standards Act:

- Pay-per-call
- Monthly/annual stipend.

Pay-per-call, whether the person responds from their home or place of employment or is scheduled for hours at the fire station (paid-on-premise), is compensation paid to the individual when responding to an emergency call. The amount of *compensation may not be tied to productivity and may not vary on time spent on the activity*. The Department of Labor's regulations specify that the payment of a nominal amount on a per-call basis to volunteer/paid-on-call Firefighters is acceptable so long as the compensation is tied to the volunteer/paid-on-call's sacrifice rather than productivity-based compensation. (DOL, Wage and Hour Division Opinion Letter, August 7, 2006.)

However, the Department of Labor has determined that payment to volunteer/paid-on-call Firefighters on a per-hour basis destroys the bona fide volunteer/paid-on-call status and creates an employment relationship. This type of payment is akin to hourly wages based on productivity. (DOL, Wage and Hour Division Opinion Letter July 7, 1999.)

Table 16 of this report **Suggested Staffing Model** outlines suggestions for a per call rate. The rates can be determined by level of certification and/or training rate.

In the example provided, the training rate is the same as the call response rate; however, the Borough may wish to keep these the same or develop a different training rate that could be applied to all training or based on the individuals' certification. If at any time the employee is paid an hourly rate, this eliminates the nominal pay standard and the employee would need to be paid for all hours worked at minimum wage.

Member Employment Status

Volunteer members of the department are paid on an annual basis based on a formula where individuals earn points for participation of emergency calls and other defined activities. In December, these 'points' are tallied per individual and divided by the total allocated dollars. Thus, each member receives a portion of the salary budget based on contributions to the department. Members are paid in January for services from the previous year

Volunteers should be considered as employees of the Borough, regardless of their pay status. Thus, they are subject to direct control of the Fire Chief and Borough Manager, as well as subject to adherence to all rules, regulations, and policies of the Fire Department and the Borough of Skagway.

In addition to the volunteer employees, the department also has a number of full-time personnel. Therefore, the Borough must also ensure the following:

- *There is an established work cycle*
- *Ensure hours worked over the work cycle are paid at an overtime rate*
- *All hours are paid at least at the established minimum wage*

Compensation Compliance

Federal Minimum Wage

The Federal Minimum Wage Law is currently $10.34 per hour, so all hourly compensation must meet or exceed this minimum. The Borough has a step compensation system and all employees, including the full-time members of the fire department are placed in a pay grade with a commensurate salary range. The Borough's compensation system needs to be adjusted so that Grade 7, Step 1 is at least $10.34; however, starting on step 2 will ensure hiring above minimum wage.

FLSA Work Period

Per FLSA, all employees that are considered non-exempt are eligible for overtime for all hours worked over 40 in a defined work period. FLSA overtime requirements for public safety employees differ from other employees, because a specified number of work hours is needed within the FLSA work period before the FLSA rate can be applied to overtime pay. This provision is commonly referred to as the 7(k) exemption. The law allows the employer (municipality) to choose a pay cycle from seven (7) to twenty-eight (28) days as illustrated in the Table below, for specific fire (and police) positions.

Table 20: FLSA 7(k) Work Period Chart

Maximum Hours Worked (Rounded) Before Overtime		
Consecutive Days Work Prior	**Hours of Fire Protection**	**Hours of Law Enforcement**
28	212	171
27	204	165
26	197	159
25	189	153
24	182	147
23	174	141
22	167	134
21	159	128
20	151	122
19	144	116
18	136	110
17	129	104
16	121	98
15	114	92
14	106	86
13	98	79
12	91	73
11	83	67
10	76	61
9	68	55

Maximum Hours Worked (Rounded) Before Overtime		
Consecutive Days Work Prior	**Hours of Fire Protection**	**Hours of Law Enforcement**
8	61	49
7	53	43

Each covered employer is required to establish a written work period in which it calculates compensation. The Borough does not currently have a written policy on its work period for the Fire Department. If no written work FLSA Cycle exists, the Borough should be following the traditional 40-hour / 7-day work week to calculate overtime. The Borough is recommended to add to the Personnel handbook a written policy outlining the FLSA Work Periods for the Fire Department. Most municipalities choose the highest FLSA cycle (28-days). This would mean that any member, other than an exempt member or volunteer, would not receive overtime at a rate of 1.5 times normal hourly rate until that member exceeds 212 hours within the 28-day cycle, which lowers the overtime expenses.

The cycle beginning date and ending date must be set by the municipality and the Borough must account for the hours any employee works (receives compensation) within those 28-days. At the end of the 28th day, a new 28-day cycle would begin. The Department has an obligation to track hours and ensure all time worked, if over the 212 hours in the 28-day cycle, is paid at the overtime rate.

Unfortunately, the 28-day cycle does not always align with pay cycles. Employers typically pay two times per month, or bi-weekly. A full-time member of the fire department would receive the regular pay for the first pay period of the cycle, and then the second check would have base pay plus any overtime earned within the 28-day cycle.

Hours Worked vs Hours Paid

Once the FLSA cycle is determined, the FLSA requires that overtime be paid for hours worked beyond the established number. Thus, in a 28-day cycle, overtime would be paid for hours worked beyond 212 hours. In a 24-48 work schedule, an employee will work more than the FLSA allowable amount. In the table below, an individual working 24 hours on, followed by 48 hours off, will actually work 224 hours within that 28-day cycle. Therefore, the employee will automatically earn 12 hours of overtime.

Table 21: Hours Worked in a Cycle

Cycle	Hours Allowed	Hours Worked	FLSA Overtime
28	212	224	12
27	204	216	12
26	197	208	11
25	189	200	11
24	182	192	10
23	174	184	10
22	167	176	9

Cycle	Hours Allowed	Hours Worked	FLSA Overtime
21	159	168	9
20	151	160	9
19	144	152	8
18	136	144	8
17	129	136	7
16	121	128	7
15	114	120	6
14	106	112	6
13	98	104	6
12	91	96	5
11	83	88	5
10	76	80	4
9	68	72	4
8	61	64	3
7	53	56	3

There are three ways to minimize the impact of overtime to the Borough's budget – distinguishing between hours worked and hours paid (work reduction), use of Kelly days, and/or sleep deductions.

There needs to be a distinction between "hours worked" and "hours paid." The FLSA only requires that overtime be paid for actual hours worked.

If the employee were to take a day off during the 28-day cycle (for example), these hours would not count toward the accumulation of overtime. He/she would be paid for their vacation time, but not at an overtime rate. As an example: An employee is scheduled to work 224 hours. During the cycle, the employee takes a 24-hour vacation day and then covers 12 hours for another employee. Here is how overtime is calculated:

Example 1 – Hours Paid

FLSA cycle hours = 224

24 hours vacation time in the 224 hours

224 hours eligible for pay

\+ 12 hours for added shift

236 hours work

Pay: 212 hours at base pay

24 hours at time and one half

Example 2 – Hours Worked

FLSA cycle hours = 224

- 24 hours vacation time

200 hours worked

+ 12 hours for added shift

212 hours work (no overtime accumulated)

Pay: 236 hours (212 + 24 hours vacation) at base pay

The Consultant recommends a change to hours worked versus hours paid. Although the Borough can decide to pay above the law, as the Department grows, this will become a considerable expense.

Kelly Days

Kelly days," a term utilized in the fire service for days off taken to minimize overtime, are used in some fire departments to help offset the work schedule and the cost of overtime. In this case, employees are provided a specific day off within the work cycle to either reduce or eliminate overtime. The day off is determined by administration and is a day – without pay – during the week in which overtime is at its greatest. In a 24/48 schedule, there are weeks in which the employee works 48 hours whereas others are 72 hours, adding a day off without pay in the weeks where there are 72 hours will reduce the overall hours within the 28-day period.

This Kelly Day offset would allow the department to minimize its overtime costs. The department may wish to consider the implementation of Kelly Days especially if the Borough continues to count vacation and sick pay in the calculation of overtime. If implemented, however, the Kelly Day must be a day established by management during the work cycle that has the greatest number of hours – not just another day off to be used by employees. It is also important to note that any additional shifts provided to reduce overtime will have a corresponding cost for "shift backfill."

Sleep Time

The Fire Department can exercise an exemption from paying for sleep time of fire personnel. There are two sections of the Fair Labor Standards Act that define the qualifications for sleep exemption §553.222 Sleep Time and §785.22 Duty of 24 Hours or more. Section a of §785.22 defines "where an employee is required to be on duty for 24 hours or more the employer and the employee may agree to exclude bona fide meal periods and a bona fide regularly scheduled sleeping period of not more than 8 hours from hours worked, provided adequate sleeping facilities are furnished by the employer and the employee

can usually enjoy an uninterrupted night's sleep. If sleeping is of more than 8 hours, only 8 hours will be credited."

If the sleeping period is interrupted by a call, the interruption must be counted as hours worked. If the period is interrupted to such an extent that the employee cannot get a reasonable night's sleep, the entire period must be counted. However, if the interruption, for example, still results in the employee receiving 6 hours of sleep, the 6 hours can be deducted. For enforcement purposes, departments have adopted the rule that if the employee cannot get at least 5 hours of sleep during the scheduled period, the entire time is counted as working time (See Eustice v. Federal Cartridge Crop., 66F. Supp. 55 (D. Minn. 1946)).

Departments that exercise sleep time need to schedule the firefighter for more than 24 hours. Thus, a 24.25-hour work schedule is developed. If 8 hours are deducted from each workday, in a 28-day work cycle, one shift will work 10 days for a total of 161.5 hours. One shift works 9 days for a total of 146.25 hours, while the final shift works 9 days for a total of 147.25 hours. Any hours worked in any of these shifts if less than 212 are compensated at straight time. Overtime would be paid for hours worked over 212 hours. In this situation, if the department – at this time – does not want to change its current policy of calculating overtime on time off (vacation, sick, holiday), then the use of sleep time will offset large overtime costs.

The Department should track the number of times sleep is interrupted and when call volume is such that the 5 hours of sleep cannot be guaranteed, eliminate the sleep time deductions.

Overtime Calculation

When working with firefighter salary, it is often difficult to determine the hourly rate to be used for either overtime calculations, or for other base pay considerations. A traditional 40-hour per week employee works a total of 2,080 hours per year. Thus, when calculating an hourly rate, one divides the annual salary by 2,080 to obtain the hourly amount. As an example, if the Borough wanted to pay an employee $50,000 per year, the hourly rate would be $24.04 per hour. The same annual rate for a firefighter would equate to a different hourly amount - $17.17 per hour. This is because a firefighter on a 24/48 hour shift works 2,912 hours per year.

Just a note, if the Borough takes advantage of the sleep deduction, the employee will work approximately 1,983 hours per year. This will be dependent on the amount of sleep deduction (the maximum is 8 hours). Then the hourly calculation would be $25.21 per hour ($50,000 / 1,983 hours).

Once the Borough has determined that it will move to 24/48 work cycle, and if there will be offsets due to hours worked versus hours paid, use of Kelly days, or sleep deductions, then the annual divisor can be determined to ensure the correct calculation of the hourly rate, as well as the overtime rate.

Exemption from Overtime

Individuals who work for an organization can be exempt from overtime if certain conditions are met per FLSA. There are two tests to determine if an employee is exempt from overtime:

- Minimum salary test
- Primary duties test

The minimum salary is $684 per week ($35,568). Regardless of the position and responsibilities, if the individual does not earn at least $35,568, then the position must remain non-exempt, or eligible for overtime.

The second test depends on the type of position and which exemption category the position falls in. For the Fire Chief, this would be the Executive Exemption. To qualify for this FLSA exemption, the employee must primarily engage in managing the department; direct the work of at least two or more fulltime (or equivalent) employees; have the authority to effectively recommend the hiring, firing, advancement, promotion or other changes of status of employees.

Dependent upon the salary of the Fire Chief, the Borough needs to consider if it will meet the first test of salary and will be supervising at minimum of two employees for the position to be considered salaried or exempt from overtime.

Recruitment

Advertising for positions within the fire department are largely done through word of mouth. The Borough's website does have a simple section on the volunteer fire department page soliciting individuals to volunteer and serve their community. There is a place to click and receive an application. The application can be downloaded for completion. Applications that are submitted are routed to the Chief, and the Chief arranges for the applications to be considered.

Application Process

Recruitment is a critical part to ensure proper staffing. It is the potential employee's first contact with the employer, so it is an employer's first opportunity to make a positive impression for the applicant. Right or wrong, first impressions can influence decisions. The recruitment process should be easy to follow,

transparent, and timely, to ensure the applicant has a positive experience, so even if they are not selected, they may be motivated to apply again in the future.

The current Firefighter application is available hardcopy, or it may be printed from the Borough's website. It appears that the application was last revised in 2021 based on the document title. The Borough also has a hardcopy application for its positions. The Borough is recommended to develop an application document that can be placed on the Borough or Department website and completed and submitted to the Borough electronically. The Borough is also recommended to utilize a single application for all Borough positions, including Fire.

The current fire department application is problematic and should be discontinued. As currently written, it asks for information in several categories that could open the Borough to charges of discrimination. Any information collected through this document should be obtained after processing of the candidate using the Borough's singular employment application.

The Borough Manager should designate a single-entry location to accept all applications for the Borough, inclusive of the Fire Department. This will allow a designee to track all applications, retain for retention/destruction purposes, communicate receipt of application, and forward to the hiring authority in a defined manner. In addition, the Borough is then recommended to standardize the recruitment process, meaning uniform and/or automated processes are developed in writing and administered consistently. The benefits of a standardized system include legal compliance. For this to be most effective, well-developed processes and systems must clearly outline the recruitment process from the development of the job announcement to the retention of all related recruitment documents.

The Borough's employment application is well done and does not contain any information that is illegal or unnecessary.

Recruitment Sources and Locations

Today's candidate does not always utilize the traditional modes of looking for positions. Social media is part of that cultural shift. What drives employees now is more than just a paycheck. Employees want a purpose, and the Borough's website and the Fire Department's web page, should explain why there is a benefit to becoming a Skagway firefighter. The Borough needs to ensure its website, Facebook, LinkedIn etc.; sites are emphasizing what makes the Borough the employer of choice.

Screening

Currently, the Fire Chief reviews all applications and arranges for the applicant to be interviewed. Currently, there is no job descriptions for non-paid positions. These need to be created with details related to minimum qualifications. This will allow better applicant screening and reduce the risk of discrimination claims or unfair hiring practices. See the section on Job Descriptions below.

Skills Testing

The Borough does not currently provide any pre-employment skills-based testing. Employers may use tests and other selection procedures to screen applicants for hire if they so choose. The use of tests and other selection procedures can be an effective means of determining which applicants or employees are most qualified or have the aptitude for a particular job. However, use of these tools can violate the Federal Anti-Discrimination Laws if an employer uses them to discriminate based on a protected class. Use of tests and other selection procedures can also violate the Federal Anti-Discrimination Laws if they disproportionately exclude people in a particular group by race, sex, or another protected basis, unless the employer can justify the test or procedure under the law. Although the department has recruitment challenges due to its location, the Borough may want to consider a standardized test for reading comprehension and general math skills in order to ensure a basic skill level of applicants.

Interviewing

Although an informal interview occurs, the Borough is not currently utilizing a formal interview process for fire department members. The Consultants recommend utilizing a structured interview process and ensure all interviewers are trained in interviewing techniques and questioning. The Department should develop a screening tool to review each application consistently to ensure the candidate meets the minimum qualifications, and if so, schedule a formal. The interview process should also be developed using structured questions and scoring, and ensure all documentation and scores taken during the interviews are retained and filed with the Borough Manager. The Consultants recommend two (2) Borough representatives' interview as a group to defend claims of discrimination or unfair hiring practices.

Post-Offer, Background, and Pre-Employment Testing

The department does not conduct any post-offer physicals. This can be difficult given the limited resources within the community. It is recommended that upon completion of a successful skills test and interview, the applicant of choice should then be provided a conditional offer of employment, inclusive of a background process and post-offer pre-employment testing (medical exam and drug test). The medical exam should be conducted by a health provider knowledgeable in NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments and OSHA 1910.134: Standard on Respiratory Protection. In addition, the exam should also include a baseline hearing exam.

The conditional offer should also include the updated background and authorization form for completion by the candidate. This is the time when the Borough should be requesting copies of any required documents not previously collected from the candidate, including Driver's License, Social Security, Date of Birth, and any other license/certification copies required but not currently on file. The Borough Manager/designee can then run the driver check and background check and coordinate the medical examination and drug test.

The Borough should have the written results of the background check and pass/fail medical results sent directly to the Borough Manager. This will ensure all related application/interviewing/pre-employment

documentation is received, handled, and retained in one (1) area. Pre-employment medical documentation received by the Borough should be pass/fail information, to help minimize the Borough's discriminatory practice liabilities based on the Genetic Information Nondiscrimination Act (GINA). It will be the Borough Manager's responsibility to communicate with the Fire Chief a summary of the results.

Applicant Communication

The Fire Chief is currently responsible for ensuring all applicants are notified of their status during the application process, but this only occurs verbally. It is recommended all communication to applicants be generated via email so messages can be sent quickly, and copies retained. This would include communicating a change to the status of their application, if the applicant is not being considered for a posted position and/or will not be moving further in the hiring process after an interview, or even if their application is not being considered further. This correspondence can be standardized so there is a consistent message being sent from the organization for each scenario. All correspondence should be retained based upon the organization's retention policy.

Recruitment Records Custodian

Currently limited recruitment documents are collected/maintained. Recruitment records include the documents and actions taken for the hiring of each position such as job advertisements, resumes, employment applications, interview evaluations, reference checks, results of physical examinations, employment test results, applicant data for candidates not hired, and related information. These records must be maintained for candidates that are hired as well as those that are not hired. These records should be retained and held by the official records custodian for the Borough for proper retention/destruction. These documents must be kept for at least two (2) years after a no-hire decision has been made. Records generated for those who become employees must also be retained and should be included into the Borough's confidential personnel records.

Probationary Status

The Department provided a series of documents related to new employee orientation and probationary requirements. It would appear that the probationary period lasts for six (6) months. Many non-union employers have eliminated the use of probationary period and moved to an orientation period.

All employees of the department should have an orientation period in which they learn the skills and responsibilities of the position, as well as demonstrate his/her ability to perform the functions of the position. The criteria to move out of this orientation period may differ from a part/full time employee versus a volunteer (POC); however, this criterion should be spelled out in the Borough's Personnel Handbook as well as the FD – Administrative Policy Manual.

New Hire Orientation

When a new member starts, the employee should receive an orientation to cover payroll forms, compensation, policies, procedures, etc. The Department does not have a basic orientation checklist that covers the non-operational aspects of employment with the Borough. Even though the employee may be only receiving a stipend for calls/training, the Borough should still obtain information for employment, payroll, and other services/benefits that may be available. This is also a time to review policies such as the alcohol policy, harassment, use of Borough technology, among other important policies.

The orientation process is as important as the interview process in terms of the impression an organization makes on a new hire. An engaging orientation process that is clearly laid out and documented for the new member will be smoother and more productive. It will also set a standard of expectation.

A written comprehensive orientation checklist will help ensure consistent training and documentation of the training process. This will also ensure completion of time sensitive items, such as I-9 documents. Orientation processes should include payroll information, scheduling, gear/equipment assignment, a copy of all policy/procedures, introduction to other personnel, introduction to physical location, introduction to equipment, location of resource materials, and other items specific to the Department. The department should place the Training Officer in charge of managing this process for all new employees (POC, part-time/paid on premise, and full time).

Job Descriptions

Job descriptions are useful communication tools to explain to employees what tasks an employer expects them to perform. Job descriptions should also address performance standards. Without these tools, employees may not perform as expected. Job descriptions also identify the education, skill, and ability necessary for a position. Minimum qualifications assist in screening for recruitment and promotional purposes and provide employees with a guide of what will be needed to attain higher ranking positions should they be interested in the future.

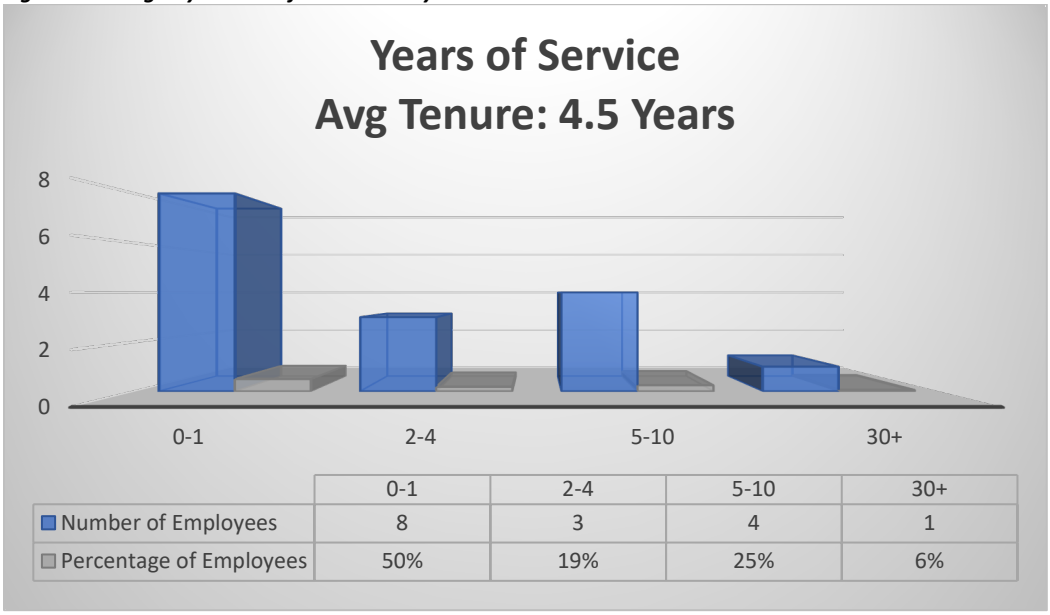
Job descriptions are also used to allow the applicant to formally acknowledge that they can perform the functions of the position. The job descriptions should delineate responsibilities – not only operational skills, but also management and leadership skills required for the positions.

The department has a few job descriptions that were in development at the time of the study. If the job responsibilities of a POC differ from a part/full time position, then a separate job description should be developed for each. It is not unusual to have different expectations of a POC, especially due to their limited availability. However, the job description should be part of the application process so that the applicant understands not only the job responsibilities, but the expectations of the position.

Age and Years of Service

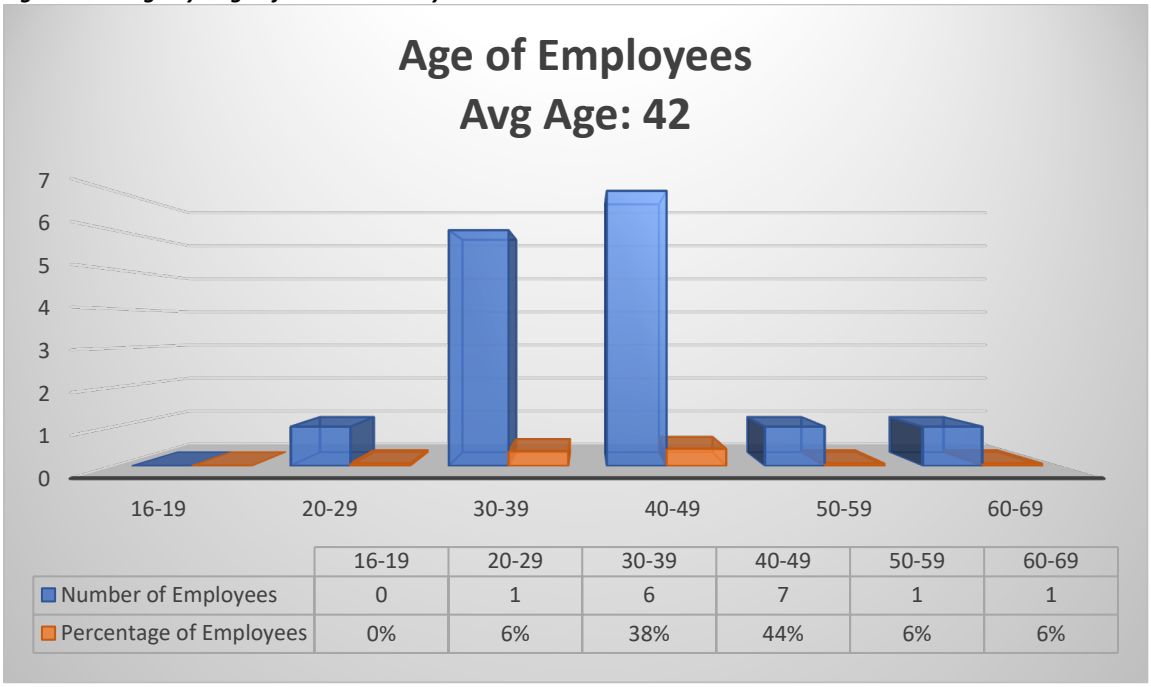
The age and years of service is very revealing for a department. As the baby boomer generation continues to age, many departments are finding a significant skills gap between those who could retire, and the age and experience of those in line to replace them. Efforts and emphasis need to be placed on developing succession plans so less tenured individuals within the organization understand the skills, education, and knowledge necessary to step into these positions when they become vacant. Promoting individuals just based upon seniority does not benefit the individual or the organization.

Figure 45: Skagway - Years of Service Analysis



Over 69% of the department roster (as of September 2021) has less than four (4) years of service. An additional 25% have between 5 – 10 years of service, with one employee having 31 years.

Figure 46: Skagway - Age of Members Analysis



	16-19	20-29	30-39	40-49	50-59	60-69
Number of Employees	0	1	6	7	1	1
Percentage of Employees	0%	6%	38%	44%	6%	6%

Coupled with the tenure of the department is the age of the membership. Again, at the time of the study, the average age was 42 years. The department has 81% of its employees between the ages of 30 and 49, indicating that it is not attracting younger individuals into the fire service. In fact, there is only one (1) person, at the time of the study, in the 20's age group. As the department transitions to a combination of POC, part-time and full-time employees, it needs to concentrate its efforts on bringing younger talent into the organization.

Performance Management

Performance appraisals are among the most valuable and important tools available to a supervisor. However, performance appraisals are seldom done in volunteer/paid-on-call organizations. Evaluations, or performance appraisals, are essential to improving employee performance. When handled effectively, these reviews can help close the gap between what employees do and what administration needs them to do. Further, performance discussions can also assist in retention of a member. Employees who feel engaged, contribute more to the organization, feel respected, and are more likely to remain as members.

Presently, the Department does not conduct evaluations on members. The Department should develop a simple evaluation system that not only provides feedback on a member's operational performance, but one that also looks at the establishment of member goals and professional development.

Employees typically desire honest and regular feedback. As a result, an effective performance management system should include regular communication between a supervisor and employee to

ensure that employee's performance in all areas is reinforced and supported. In addition, the process provides an opportunity to discuss career and professional development opportunities which can also benefit the department for effective succession planning.

Personnel Policies

Personnel Policy Manuals/Handbooks are a summary of information about an organization that will often include administrative procedures and employment-related policies. This document covers basic topics such as expectations of conduct, selection and promotional processes, hours of work, discipline, benefits (if applicable), separation, and standard employment policy topics such as harassment, bullying, use of technology, etc. The Borough has a Personnel Policy Manual that appears to be up to date. The Borough's Personnel manual should be updated to include information on POC personnel.

The following are a couple of suggestions for updates to the Personnel Manual:

- Federal laws missing from the handbook:
    - GINA – Genetic Information Nondiscrimination Act
    - FMLA – Family and Medical Leave Act
    - Immigration Law Compliance
    - VESSA- Victims Economic Security and Safety Leave
- Code of Ethics
- Inspection of Borough property
- Cell phones
- Personal calls and visitors
- Electronic communications
- Ownership and access to electronic mail and computer files
- Social Media
- Change the grievance policy to an employee complaint procedure and a problem resolution process.
- Resignation process
- Reinstatement practices

Personnel Records

Personnel records have three (3) major functions in an organization.

1. They provide a memory or recall to administration and employees
2. They offer documentation of events for use in resolving questions or human resources problems
3. They provide data for research, planning, problem solving, and decision-making

While Federal, State, and local laws require that certain employee information be maintained, certain basic records should also be retained to avoid errors of memory and provide information for making management and human resources decisions.

Contents of personnel files vary by organization, but most human resources professionals accept some practices as standard. The following provides a non-inclusive list of standard items, and where they should be maintained:

Table 22: Personnel Records

MAIN EMPLOYEE FILE
Acknowledgement of employee handbook
Acknowledgement of policies/policy revisions
Application Materials
Certifications, licences, transcrits, etc.
Official performance documentation (memos, lettres, discipline, recognition, etc.)
Offer/promotion/transfer letter(s)
Orientation checklist
Performance appraisals
Status Change documentation (change of address, position etc.)
Termination checklist
Training requests (with approval and/or denial documentation)

SEPARATE PAYROLL FILE
COBRA and other mandatory benefits notices
Direct deposit authorizations
Group benefit enrollment forms (health insurance or other forms with medical information must be placed in medical file)
Miscellaneous deductions, garnishment orders, etc.
New Hire verification
Retirement system calculations/benefits
W-4 form

SEPARATE MEDICAL FILE – MANDATORY SEPARATION
FMLA documentation or other medical leave
Medical/Psychological pre-employment exams
Non-CDL drug and/or alcohol screening (CDL screening mandates its own file)
Other medical tests results
Sick verification notes
Vaccine records and/or declination form
Worker's compensation information (doctor reports, letters, etc.)

SUBJECT FILES – MANDATORY SEPARATION OR BEST PRACTICE SEPARATION
CDL/DOT drug and alcohol tests (maintain together for auditing purposes)
Immigration Control Form I-9 (maintain together for auditing purposes)
Investigation notes or reports
Litigation documents
Worker's compensation claims

The Fire Department should maintain only limited information regarding an employee, and the information they have should be kept in a locked file with access only by the Chief and appointed supervisors. Information maintained in the Department files should be limited to performance documentation and training records. All other information, including all medical information, should be kept in the Borough's official file. Anyone with access to the Department's files should be trained on employee confidentiality.

RECOMMENDATIONS

- *Ensure that volunteers are paid a stipend and that part and full-time employees are an hourly rate.* ***Priority 1***
- *Firefighter employees working full-time on a 24/48 shift should have a written policy confirming a 28-day work period in accordance with 7(k) for overtime calculations for fire suppression positions.* ***Priority 1***
- *All volunteers should be considered employees of the Borough and subject to all Borough/Department policies and procedures. The Personnel Handbook should include references to volunteer (Paid on Call), part and full-time employees.* ***Priority 2***
- *Consider changing the payment of time off to hours paid versus hours worked; use of Kelly days or use of the sleep time exemption to minimize the amount of overtime when the 24/48 shift schedule is started.* ***Priority 2***
- *Develop one employment application to be completed and submitted to the Borough electronically.* ***Priority 2***
- *Do not require a copy or attain information of the Driver's License, Social Security Number, and Date of Birth on the employment application.* ***Priority 1***
- *Establish single point of entry to accept all applications for the Borough.* ***Priority 2***
- *The Borough and Department website should be updated to reflect why the Borough is an employer of choice for recruitment purposes.* ***Priority 4***
- *Develop standardized recruitment procedures which includes screening applications based on objective criteria and a competitive interview process.* ***Priority 2***
- *Develop a standardized rating system to rank candidates during interviews.* ***Priority 2***
- *All personnel who participate in interviews should be trained in interview techniques/legal questioning.* ***Priority 1***
- *Maintain all application screening processes and documentation.* ***Priority 2***
- *All applicant communications should be developed as a template for consistent communication.* ***Priority 3***

- *All applicant communications should be retained.* ***Priority 2***
- *Develop a template offer letter and include an authorization form to initiate the background process and authorization to perform a background check.* ***Priority 2***
- *Investigate and implement a simple testing process to determine reading comprehension and basic math skills.* ***Priority 3***
- *A post-offer pre-employment physical should be conducted by a medical provider selected by the Borough knowledgeable in NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments and OSHA 1910.134: Standard on Respiratory Protection.* ***Priority 2***
- *Ensure all post-offer processes (background and medical exams) are coordinated via the Borough Administration.* ***Priority 2***
- *Ensure all recruitment records are retained with Borough Administration for proper retention/destruction.* ***Priority 3***
- *Establish the standards of expected performance for an employee to learn and understand the roles and responsibilities of the position during the orientation period. The supervisor should document, monitor, and support performance measures.* ***Priority 2***
- *Develop a new employee orientation checklist for the Department to ensure all paperwork, policies, benefits, Borough and Department information is consistently provided and documented along with employee's acknowledgement.* ***Priority 5***
- *Develop job descriptions to incorporate the job functions, minimum qualifications, and other relevant areas to describe each position.* ***Priority 2***
- *The Fire Chief should develop a basic performance evaluation instrument for all members. The instrument should outline basic performance expectations of every member and establish professional and/or organizational goals for the upcoming year.* ***Priority 4***
- *Performance evaluations should be provided formally and include discussion of the needs of the member in order to ensure the organization is meeting them; thus, the member understands that not only is he or she beneficial to the organization but that the Department is concerned about his or her individual needs.* ***Priority 5***
- *Develop an ongoing performance evaluation process for new members.* ***Priority 4***
- *All evaluating officers should be trained in performance management and how to conduct performance evaluations.* ***Priority 4***
- *Update the Borough's Policy and Procedure Manual to include POC members.* ***Priority 3***
- *Update the Borough's Personnel manual to include recommended policies.* ***Priority 3***
- *Provide all SOGs and the Borough Policy and Procedure Manual to employees and require a written acknowledgement.* ***Priority 3***
- *Ensure all active and inactive personnel files are maintained with the Borough's personnel files. The Department should only maintain training records and current performance documentation on active employees.* ***Priority 2***

Facilities

Fire Hall

Figure 47: Skagway Public Safety Facility

The Skagway Fire Department operates from a public safety facility located at 308 17th Ave, Skagway, AK 99840. The facility houses the fire hall, police department, jail/holding facility, dispatch, and a veterinary clinic. The department's administrative offices are included in this facility along with response equipment storage/apparatus bay, firefighter housing, a training room/EOC, and an apparatus maintenance facility. This new facility opened in the summer of 2017 at a total cost of $15,480,995.

Figure 48: Skagway Public Safety Facility

The facility is positioned well and is constructed to meet all current standards related to natural disasters including alarms, fire sprinklers, and backup emergency power. It is fully ADA compliant. It is also equipped with a security entry system requiring pass card access into all secure areas of the building.

This security system, although probably appropriate, does make the fire hall feel less than inviting and more than a little intimidating for visitors. Any steps taken to lesson this feel while maintaining security would be a welcomed addition.

Overall, this is a tremendous facility designed with an eye for the future. It will without question meet Skagway's public safety needs for many years to come.

Figure 49: Old Fire Hall (Vacated in 2017)

Prior to moving into this new facility, the fire department responded from a fire hall located closer to heart of downtown Skagway. The building is now being used by the Municipality for storage.

The new fire hall contains five (5) apparatus bays with one additional bay designed for apparatus maintenance. The bays include a direct capture exhaust removal system as well as shoreline electrical power drops and compressed air drops. It is well lit and designed to accommodate modern fire apparatus including being of sufficient length to allow housing of aerial apparatus.

Figure 50: Apparatus Floor

Inside the bay area of the fire hall the department also houses three antique fire apparatus in various states of restoration. One unit is beautifully restored with the other two needing additional work. It is encouraging to see that the history of the department is important and honored through these past pieces of response equipment.

The department also displays a historic hose cart outside near the front of the fire hall.

Figure 51: Historic Hose Cart

Figure 52: Fire Apparatus Portable Lifts

Maintenance Bay

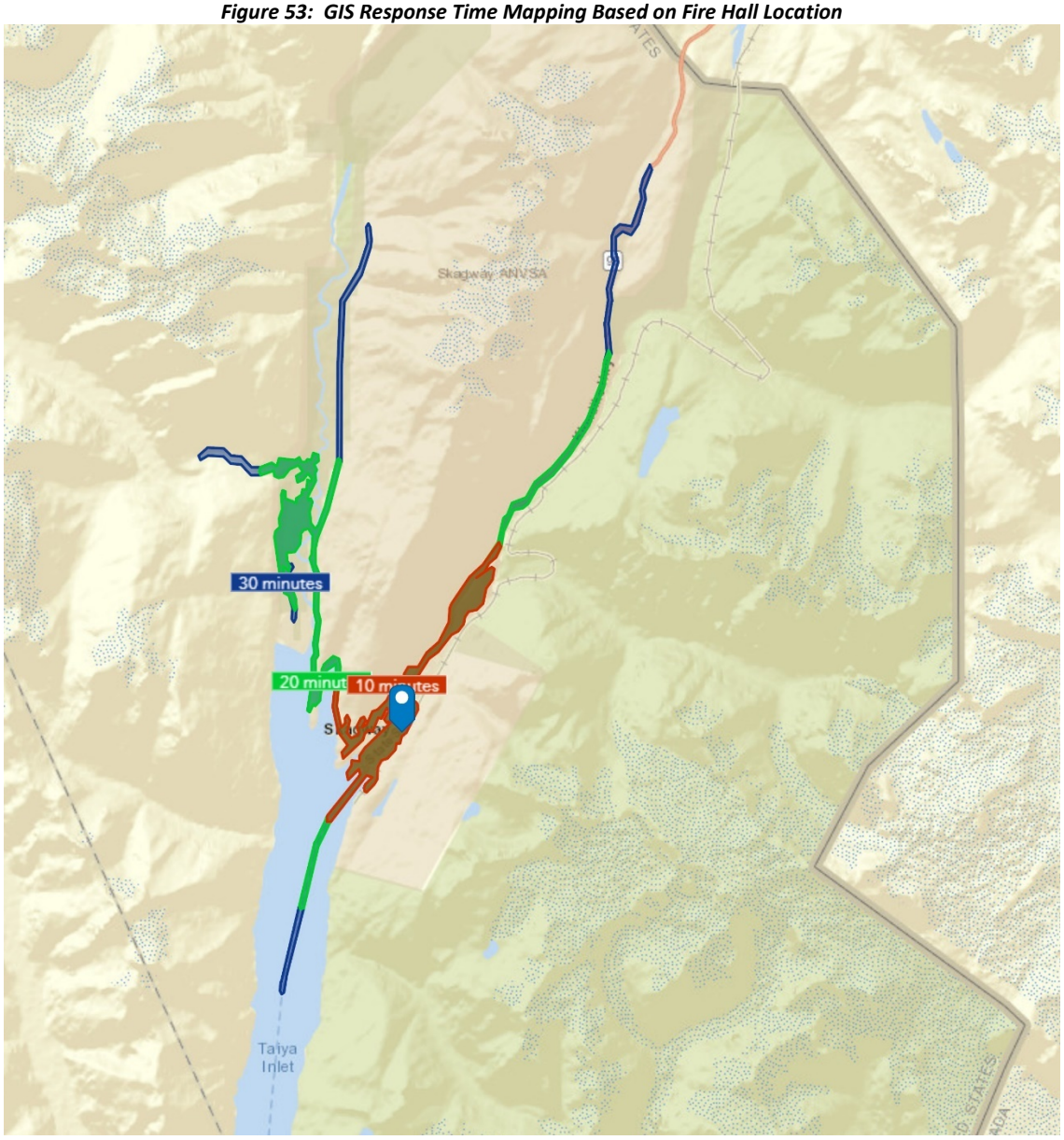
The apparatus maintenance bay is relatively well equipped and includes portable lifts designed for heavy duty apparatus. These lifts, including all fleet maintenance tools and equipment not personally owned by the former mechanic, should be transferred to fleet services at the Public Works Department. Once this occurs the vacant bay can be utilized as an apparatus wash bay as well as a bay in which to park additional apparatus.

Many fire departments allow volunteer members to wash and clean their personal vehicle at the fire hall as a perk to membership. This bay may offer an opportunity to encourage volunteers to be at the fire station and ready to answer calls while offering them a small token of appreciation for their dedication and hard work. When working to motivate volunteer firefighters and EMTs, little things often go far to help them feel valued and appreciated.

GIS Mapping

GIS Mapping with comparative response travel times based on road distances indicates that the fire hall is appropriately positioned to provide optimal response times to areas of the district that are most populated.

Figure 53: GIS Response Time Mapping Based on Fire Hall Location



Loose Equipment Storage Rooms

Directly off the apparatus floor is a large storage room as well as an SCBA compressor/fill room. Other rooms with access off the apparatus floor contain medical oxygen storage and bottle filling, firefighter decontamination facilities, and firefighter PPE gear storage. There is also a room used to store fire association supplies and rehab materials.

Figure 54: Floating Pumps

The primary storage room contains a vast amount of loose equipment and firefighter PPE. Included with this storage are five floating fire pumps that conservatively retail for around $3,500 - $4,000 each. These are useful during wildland fire events allowing water to easily be pumped from streams and waterways.

Figure 55: Wildland Gear Storage

The room also contains a large cache of wildland firefighting PPE. The chief advised that not all personnel are issued wildland PPE. Due to the vast wildland area protected by Skagway Fire Department, including the significant reduction in firefighter physiologic strain when using wildland PPE compared to structural PPE, fire administration should consider issuing this equipment as well as protocol changes that would allow expanded use of wildland PPE on non-structural type responses.

Figure 56: Structural PPE Storage

Like wildland PPE, the department has a huge amount of stored firefighter structural PPE. Per NFPA 1851 - Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, firefighter protective ensemble or ensemble components (helmets, gloves, and hoods) must be retired from service no more than 10 years from the date the ensemble or ensemble component was manufactured – the date it was manufactured, not the date it was placed in service. The department would do well to check these dates on all structural PPE and dispose of those ensemble pieces that are no longer compliant.

Beyond PPE and wildland equipment storage, the department has a significant supply of foam concentrate as well as a great deal of search and rescue equipment not currently assigned to a response apparatus. Some, but not all, of this equipment may have a lifespan replacement cycle. The department would do well to check expiration dates to ensure that all stored ropes and harnesses are still compliant.

Figure 57: Foam and Misc. Supplies

It is also important to note that this type of search and rescue equipment may best be stored and ready for deployment in this type of facility shelving configuration. If this is the case, the lead consultant recommends that a monthly inventory and "equipment check" procedure be implemented just as occurs with fire apparatus to ensure that these tools are mission ready. These inventory and check sheets should be maintained within the department's computer records management system.

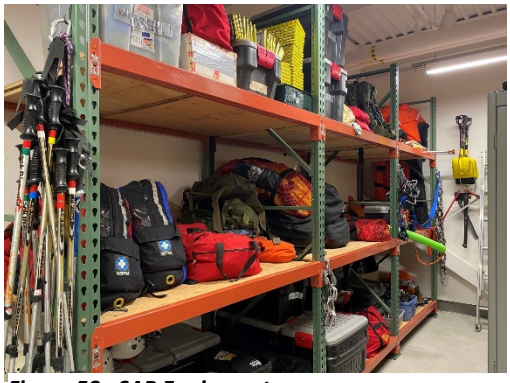


Figure 58: SAR Equipment

Living Quarters

The fire hall is well proportioned and designed for firefighter staffing. The second floor includes a kitchen, rooftop patio area, and dayroom. It meets all architectural standards related to square feet per person for common areas (80'-100' square feet).

Figure 59: Fire Hall Kitchen

The facility also includes individual sleeping quarters for up to three (3) on duty personnel. The individual dorm style rooms offer locker space, a desk/study area, and a bed. The rooms allow privacy for both male and female firefighters. The rooms are to be shared between shift personnel. Those on-duty use the room/bed during their shift and then remove their bed linen and allow their oncoming relief to use the room and bed. This is a common practice in most fire departments who house personnel on overnight shifts.

Figure 60: Fire Hall Day Room

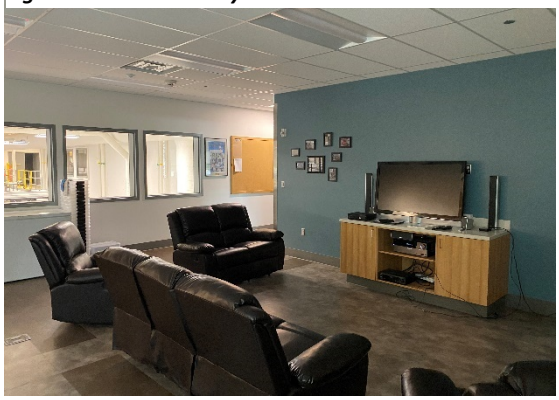


Figure 61: Bunk Room

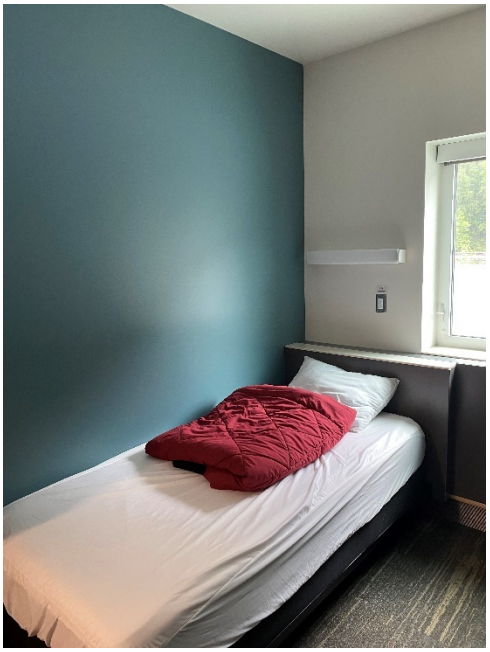


Figure 62: Bunk Room

Also on the second floor is a room configured with office style workstations originally designed for use by volunteer officers. Like the rest of the facility, this space meets all architectural standards related to worker spacing (60'-110' square feet per person). The space currently seems to have digressed into a catch all area that does not appear to be used very often.

Figure 63: Volunteer Officer Workroom

The intentional design separation between volunteer officers and career staff, who have office space in the administrative area of the main floor, has the potential to create undesirable separation and division between the workforces. This is not something that should be allowed or fostered in a combination fire agency. Much consideration by fire administration needs to take place on how best to utilize this workspace going forward.

Figure 64: Fitness Room

Fitness Facility

A modern fitness facility is houses on the second floor. The facility is well equipped with room for expansion of additional machines and free weights.

Physical fitness is an essential aspect of protecting firefighters from injury and illness while preparing them for the physical rigors of heavy tools and equipment and the lifting and moving of patients. On duty staff should be encouraged, if not mandated, to complete a workout period

during their shift. Administrative (8-hour personnel) along with volunteer members should be encouraged to complete physical fitness training 2-3 times per week. Physical fitness will lessen the detrimental impact of heat stress, reduce the risk of firefighter cancer, and plays an important role in the mental health of emergency responders. The department is applauded for making such a facility available.

Figure 65: Fitness Room

RECOMMENDATIONS

- *All fleet maintenance tools, lifts and equipment should be transferred to fleet services at the Public Works Department.* ***Priority 4***
- *All department responders should be issued wildland PPE. A PPE policy should be developed to allow use of wildland PPE for incidents where the thermal protection of structural PPE is not required.* ***Priority 3***
- *Conduct an analysis of the manufacturer dates of all structural PPE and dispose of ensemble pieces that are no longer compliant with NFPA 1851.* ***Priority 1***
- *Conduct an analysis of the manufacturer dates/expiration dates on search and rescue equipment to ensure that all stored ropes and harnesses are still compliant.* ***Priority 1***
- *Implement a monthly inventory and "equipment checks" procedure for all search and rescue equipment maintained in the storage room to ensure that the tools are mission ready. This inventory and associated check sheets should be maintained within the department's computer records management system.* ***Priority 3***
- *Due to the potential for creating a strained officer work environment due to the separation of volunteer officers from paid officers, thorough considerations should be given to the best utilization of the office workspace on the second floor.* ***Priority 5***
- *On duty staff should be encouraged, if not mandated, to complete a workout period during their shift. Administrative (8-hour personnel) along with volunteer members should be encouraged to complete physical fitness training 2-3 times per week. All physical fitness workouts should be tracked using the department's computer records management system.* ***Priority 4***

Apparatus/Equipment

Every fire department, regardless of size or geographical location must have apparatus that is designed to meet the emergency service needs of the community along with sufficient personnel who are trained and capable of operating the apparatus. Skagway, as detailed in the **Introduction** section of this report, has a significant level of risk/threats, and protects numerous special target hazards. This mixed and varying service demand requires apparatus that is designed with unique and special features capable of addressing these various concerns. All new apparatus should meet or exceed the standards established by NFPA 1900 - Standard for Automotive Fire Apparatus.

Current Apparatus Fleet

Skagway currently operates a fleet that generally meets the needs of the community. As apparatus is replaced, a few changes to specifications are recommended that will enhance capabilities, but overall, the fleet is appropriate and not out-of-line with the needs of Skagway.

Two additional pieces of apparatus are needed and will be discussed and justified later in this section. These units are an aerial ladder and a fireboat.

One thing that makes this apparatus assessment difficult is the fact that no data was provided related to annual repair costs per rig, fuel utilization, or hours/miles operated. Lacking this information, it is impossible to determine an annual cost/cost per hour of operation or even predict the life expectancy/replacement schedule for these units. Not tracking this important data makes justification of apparatus replacement nothing more than an educated guess.

The following chart provides a listing of the current apparatus:

Table 23: Apparatus Description and Base Specifications

Apparatus	Manufacturer	Apparatus Type	Year	Mileage	Hours	Pump	Tank
Chief's Tahoe	Chevrolet Tahoe	Command	2008	49,310	Unknown	N/A	N/A
Command 1	Chevrolet Tahoe	Command	2006	60,276	1034.5	N/A	N/A
Engine 23	Pierce/Dash	Engine	2002	13,888	1,322.9	2000 GPM	500 Gallons with Class A Foam
Engine 4	Pierce/Saber	Engine	2008	14,819	1036.6	1500 GPM	1000 Gallons with Class A Foam
Tender 20	GMC TopKick/	Tender	1992	15,450	Unknown	750 GPM	1,800 Gallons
Tender 31	International/Pierce	Tender	2017	5,455	239	750 GPM	3,000 Gallons
Rescue 5	International/Pierce	Heavy Rescue	2009	8,329	467	N/A	N/A
Rescue 26	Ford/	Light Rescue/Brush	2001	3,198	568.3	500 GPM	150 Gallons with Class A Foam
Ambulance 30	Ford/Braun	Ambulance	2013	9,098	716.7	N/A	N/A
Ambulance 32	Ford/Braun	Ambulance	2018	2,953	244	N/A	N/A
Ambulance 22	Freightliner/Amtech	Ambulance		22,824	2,383	N/A	N/A
Brush 29	Chevrolet/	Utility Pickup	2011	46,470	721	N/A	N/A
Six Wheeled Vehicle	Polaris Ranger	Brush		954	211.5	N/A	N/A
Four Wheeled Vehicle	Polaris Ranger	EMS/Brush	2021	Just delivered and is being prepared for service		N/A	N/A
SERV-U	Muns/EZ 32' Pack Cat	Boat	2006	Port Motor: Hrs. 375	STBRD Motor: Hrs. 395	N/A	N/A

** Chief's Tahoe is a take-home vehicle for the Fire Chief*

** Command 1 is a take-home vehicle used by the on-call full time staff member*

Apparatus Utilization

Fire apparatus by their unique design and functionality are extremely expensive to purchase and maintain. Additionally, if a department's prevention and public education programs are strong and are appropriately focused on the unique needs of an individual community, fire apparatus will likely not be used as regularly as other municipal vehicles. That does not mean that the apparatus is not justified and needed, it just means that it is not used very often – which is a good thing. It is a common tendency for government

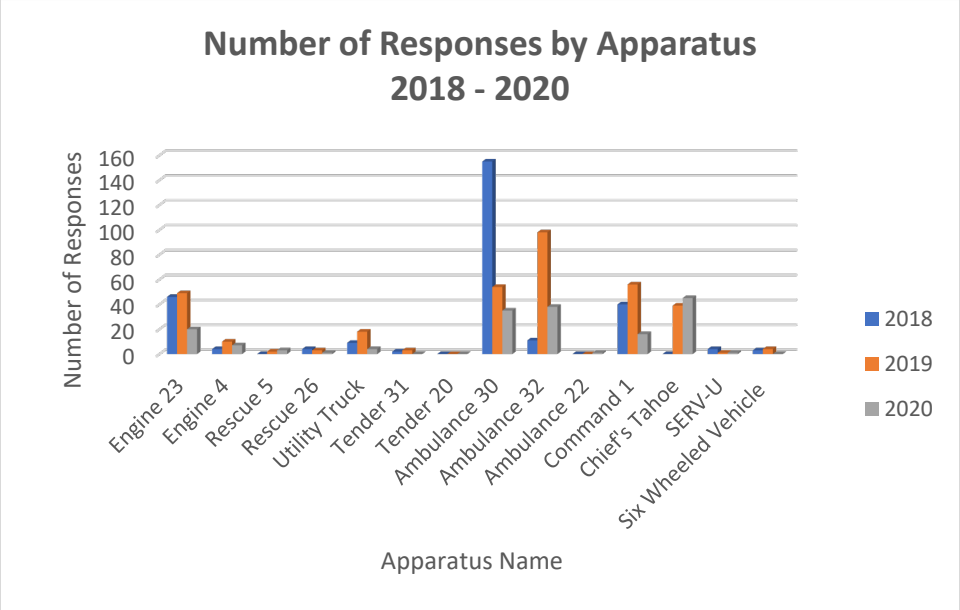
leaders to try and tie utilization to need, however this is simply not the case when speaking of fire apparatus.

Ambulances on the other hand, have a direct tie between utilization and need. Every community has Emergency Medical Service needs and most of these needs are suitably managed by an ambulance fleet. The number of ambulances needed, and their style and design can be directly driven by utilization.

Additionally, two other types of apparatus are important for operations. One is command vehicles and the second is support/utility vehicles. An explanation related to both type units will be covered in upcoming sections of this report.

The below table provide a 3-year review of the number of responses for each of Skagway's apparatus.

Table 24: Number of Responses by Apparatus: 2018-2020



Ambulances

Skagway operates three (3) ambulances. Two of these units (Ambulance 30 & 32) are almost identical and were built by Braun Custom Ambulance on Ford F-450 4x4 chassis. Braun Custom Ambulance is an excellent manufacturer headquartered in Van Wert, OH. Braun ambulances are known for their design, safety standards, and are selected by EMS agencies looking for extraordinary quality. Both units reportedly function well and meet the needs of the department.

Figure 66: Ambulance 30

Going forward, it is the recommended that two (2) SCBA units be added to each of these vehicles including a selection of basic fire service "truck company hand tools" (Halligan Bar, Flat Head Axe, 6' hook, search rope, hand lights, a thermal imager, etc.) This will be important as the department moves away from the separate EMS Division and becomes more inclusive of the firefighter/medic model.

Figure 67: Ambulance 32

Ambulance 22 is built by Amtech on a Freightliner FL 60 4x4 chassis. This unit has most recently been used as the "COVID-19 Response Ambulance." Based on what we now know about COVID and the best methods for protecting responders and sanitizing ambulances after transporting patients, there no longer a need to maintain this unit for this function. This ambulance is in poor mechanical condition and should be disposed of as-soon-as-possible. Continuing to utilize this unit for patient transports provides an increased level of liability.

Figure 68: Ambulance 22

Based on Skagway's call volume, overlapping incidents, and incidents requiring the response of multiple ambulances, there currently is no indication that Skagway needs more than two (2) ambulances.

It appears that Skagway is on a ten-year replacement cycle for ambulances. That means that every 5-years a new one is purchased. This cycle is prudent and should be maintained. Following this cycle, the next new ambulance should be purchased in 2023.

Engines

The department operates two (2) engines. One of these units is designated as the "city engine" with the second being designated as the "rural engine." These designations are fine if it is recognized and taught to all personnel that both engines can function in both environments, including the fact that they can and should be utilized to support the others primary operation at an emergency incident. In other words, if one engine is being used as the primary attack pumper at a fire (regardless of city or rural), the second engine should be positioned as the water supply engine for the one pumping.

Both engines are custom manufactured units built by Pierce of Appleton, WI. Pierce Manufacturing is a custom builder of fire and rescue apparatus and is a wholly owned subsidiary of Oshkosh Corporation. Pierce is currently the largest fire apparatus company in the world. Like the Braun Ambulances, Pierce is well known for its quality.

Figure 69: Engine 23

Engine 23 is the "city engine." It is a model year 2002 and is equipped with a 2,000 GPM midship pump and a 500-gallon tank. It is equipped with a compressed air foam system (CAFs). CAFs is a foam firefighting substance, which when mixed with water, creates an adhesive foam blanket which can be used to reduce temperature, extinguish flames, and protect unburned materials from radiated heat. It also has a cab mounted Night Scan Light Tower.

Figure 70: Engine 23 - Rear

The engine is well equipped with lose equipment and the lead consultant expects that the engine functions well for its intended purpose.

When reading through the apparatus maintenance report provided, although the information is limited, one can conclude based on the number of ongoing repairs to leaking pump components, valves, CAFs, and the light tower, the engine is likely nearing its dependable life as a frontline apparatus.

Figure 71: Engine 23 - Light Tower

When this engine is replaced, the consultants recommend equipping the new unit with a larger water tank (1,000 gallons or more). The larger tank is common in the fire industry and will make this unit more valuable for rural response capabilities.

Engine 4 is the "rural engine." It is a model year 2008 and is equipped with a 1,500 GPM midship pump, a 1,000-gallon tank, and a compressed air foam system (CAFs). It is also four-wheel drive.

Figure 72: Engine 4

This is a very nice engine that is well equipped, including a set of hydraulic extrication tools. It is designed for quick drafting operations based on the location of hard suction hoses.

Figure 73: Engine 4 - Rear

When this unit is replaced, the consultants recommend moving to a consistent pump size with Engine 23. Why one engine is equipped with a 2,000 GPM pump and the other with a 1,500 GPM pump does not necessarily make sense. Aligning these pump sizes will reduce confusion and add versatility to the engine fleet.


Figure 75: Engine 4 - Extrication Tools


Figure 74: Engine 4 - Hard Suction Cabinet

Tenders

Water Tenders are designed with large water tanks that can rapidly be "dumped" or off-loaded for firefighting in rural areas where hydrants are limited or do not exist. The water is dumped into portable tanks were engines, using their large pumps, "draft or vacuum" water out of these for application onto the fire. The key in making rural operations work is that the tender, once it has dumped its load of water, immediately heads to a water source where it refills and then returns to the fire so it can dump again. While the first tender is headed to refill, a second tender dumps its water into the portable tank and then it also heads to refill. This continual shuttling of water, in most cases, provides the needed fire flow to manage the incident. Trying to operate with a single tender in a water shuttle operation does not work well and usually results in an extension of the overall fire loss. For this reason, Skagway should always maintain at least two (2) water tenders.

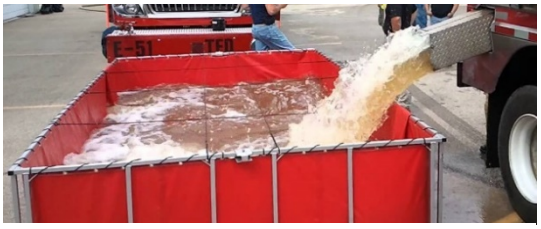


Figure 76: Portable Dump Tank

Tender 31 is a model year 2018 and is equipped with a 750 GPM midship pump and a 3,000-gallon tank. It is built by Pierce on a heavy-duty International Chassis. Like the majority of Skagway apparatus, this is a very nice unit.

The only change in specification that the lead consultant would have recommended would have been an alignment with pump size as explained in the section on engines. This change in pump size will make these units considered Pumper/Tenders which will increase their versatility in operation.

Figure 77: Tender 31

Figure 78: Tender 31 - Rear

Tender 20 is a model year 1992 and is equipped with a 750 GPM midship pump and an 1,800-gallon tank. It is built by Becker Fire Equipment on a GMC TopKick Chassis. This tender needs to be replaced.

The replacement of this unit is an opportunity to address two separate needs in one single unit. The lead consultant recommends that a new unit of similar design to Tender 31 be purchased with the addition of a few enhancements.

Figure 79: Tender 20

Figure 80: Tender 20 - Rear

- It should be equipped with either a 1,500 or 2,000 GPM pump depending on what the department decides is going to be the standard going forward. This pump however should have "pump and roll" capabilities. This change will make this new unit a pumper/tender.
- It should also be equipped with a tank for non-toxic Aircraft Rescue and Firefighting (ARFF) foam.
- It should be equipped with either a bumper or roof turret whereby it can expel a foam and water mixture using the "pump and roll" feature.

This new tender should become the "first out" apparatus responding to incidents involving aircraft and the tank farms.

Rescues

Figure 81: Rescue 5

Rescue 5 is a 2009 Pierce Rescue built on an International Chassis. Based on the 3-year annual apparatus report, it appears that very little work has been required to keep this vehicle operational. Again, the documentation provided does not give any costs for repairs, but those that are documented are minimal in nature. As a generalized assessment, this vehicle is in very good condition.

Figure 82: Rescue 5 - Rear

This vehicle responds on all "rescue" calls where the action needed may include vehicle stabilization/extrication, any type of rescue that might include lifting, cutting, pulling, as well as all hazardous materials releases and spills. In addition, the vehicle along with personnel staffing the unit serve as the "support/truck company" at structural fires. Support/Truck Company operations generally include:

- Laddering
- Overhaul (opening ceilings and walls to expose hidden fire)
- Ventilation (horizontal, vertical, mechanical)
- Entry (forced entry using specialized tools)
- Rescue (victim search and rescue inside an IDLH atmosphere)
- Salvage (Protection of belongings and the structure from water, smoke, weather elements, etc.)
- Utilities (Control of utilities)

Fire ground support operations are essential in firefighting. Rescue 5 carries a variety of tools and equipment needed to perform this role.

Figure 83: Rescue 26

Rescue 26 is a 2001 Ford F-550 with a Precision Equipment Utility Body. It is also 4-wheel drive. The unit carries a skid mounted 500 GPM fire pump with a 150-gallon tank. This skid is equipped with a Class A Foam reservoir that can be proportioned through the pump. The unit is utilized for wildland fire response and is considered a Type VI fire engine per Wildland standards. Type VI fire engines are widely used in the wildland urban interface fire response because of their versatility, maneuverability, off-road abilities, and fire suppression capabilities.

In addition to the wildland functions, the unit is also equipped with the department's Search and Rescue equipment. This includes ropes, harnesses, victim retrieval equipment, and supplies needed to hike into a victim's location and provide emergency medical care.

Figure 84: Rescue 26 - Rear

From appearance and the limited information provided, this vehicle seems to be in generally good condition, but it is also beginning to show some age. The vehicle is currently 20-years old and should be considered for replacement in the not-too-distant future.

Due to the weight and functionality of this unit, when it is replaced, the department should analyze whether a move to a Type III fire engine would make sense. A Type III wildland fire engines are four-wheel drive that include a pump and a 500-gallon water tank. They are constructed on a larger chassis better able to carry the weight including larger braking/stopping capabilities. The attached photo depicts a typical Type III fire engine.

Figure 85: Type III Engine

Command Vehicles

Command units are essential for providing a designated incident command post designed as a work area where commanders can establish strategy and tactics, track firefighter accountability, manage communications, and have access to the data needed to effectively provide direction and manage an incident. Departments operating without an in-house on-duty shift commander typically assign command vehicles as take-home units requiring on-call commanders to respond to emergency incidents. This works extremely well for volunteer/paid-on-call departments since on-call personnel respond directly to the scene, usually arriving ahead of other responding apparatus and can complete a size-up of the situation and begin establishing a tactical plan prior to the arrival of other units.

The department operates two command vehicles:

Figure 86: Command 1

Command 1 is a 2006 Chevrolet Tahoe. This unit is utilized as a take-home vehicle for the on-call duty officer. It is equipped with a command center module in the rear hatchback area. This vehicle is "tired" and needs to be replace.

Chief's Vehicle is a 2008 Chevrolet Tahoe that was repurposed from the police department. This is the take-home vehicle utilized by the fire chief. No information related to this vehicle, or its overall condition was provided to the consultants, including maintenance records.

Figure 87: Chief's Vehicle

This vehicle does not have a rear command module installed thereby limiting its effectiveness for incident command purposes. The lead consultant recommends that the fire chief continue to operate and respond with a take-home vehicle, but it should be upgraded to include a rear command module.

When these two command vehicles are replaced, the lead consultant strongly recommends moving to pickup trucks with bed toppers. One of the major health concerns in the fire service is carcinogens from firefighter PPE being kept inside apparatus where it can off gas and then be inhaled or absorbed by those riding in the vehicle. My moving away from the SUV concept and into pickup trucks, this problem is substantially minimized. Attached are a three photo depicting examples of command vehicles built using pickup trucks and their associated command modules.

Figure 88: Style of Recommended Command Vehicle


Figure 90: Rear Command Module

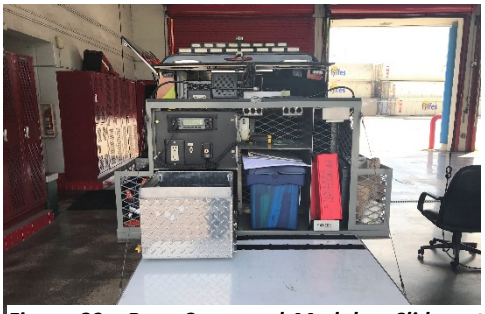


Figure 89: Rear Command Module - Slide out tray

Support Vehicles

Likewise, support vehicles such as a pickup truck work well as a general multipurpose vehicle (i.e., moving equipment, plowing snow, attending training, pulling trailers, etc.). Support vehicle usage is better tracked based on mileage and not call response.

Figure 91: Brush 29

Brush 29 is a 2011 ¾ Ton Chevrolet Pickup. It appears to be in reasonably good shape and can likely be utilized for several more years.

Specialty Apparatus

Skagway Fire Department operates two (2) specialty vehicles.

The first is a Polaris Ranger – Six Wheeled Vehicle. It is utilized for a variety of functions primarily focused on wildland firefighting and search and rescue operations. The overall mechanical condition of this vehicle is unknown.

A second **Polaris – Four Wheeled Vehicle** was delivered in late September 2021.

Figure 92: New 4-Wheeled Polaris

Figure 93: 6-Wheeled Polaris

SERV-U Boat is a 2006 MUNS/EX 32' Pack Cat. This boat is likely adequate as a small craft assistance vessel. It is low to the water, has a lowerable front gate, and can offer shelter for ambulatory victims inside the cabin. It is however woefully inadequate related to protection of the Skagway Port and the Harbor. It has no pumping capabilities other than a portable pump that needs to be setup and configured when needed. It also does not allow room for patient care of those positioned on a backboard or Stokes Basket. The lead consultant does not recommend that this boat be removed from service and replaced, but rather a dedicated fire boat capable of managing the risks be purchased and placed into operation. Discussion on the specifics of a new fire boat will be discussed in a section below.

Figure 94: Rescue Boat

Apparatus Maintenance

For many years the Skagway Fire Department has employed a full-time mechanic. This individual has worked a dual role as both a mechanic and an emergency responder (Firefighter/EMT-1). This has allowed preventative maintenance and general repairs to be handled in-house. This employee did not hold certification as an Emergency Vehicle Technicians (EVT).

Department records indicate that all apparatus pumps have been tested annually per NFPA standards. It is unknown whether annual ground ladders testing, and hose testing occurs per NFPA standards.

Since the department's mechanic has recently left the position, it is recommended that all apparatus and small tool maintenance be transferred to the Fleet Services Division of Public Works. To accommodate the additional workload, it is recommended that an additional mechanic be hired by the municipality and that all personnel assigned to work on fire apparatus receive training and become certified as Emergency Vehicle Technicians (EVTs) as appropriate.

The EVT Program is designed to improving the quality of emergency vehicle service and repair throughout the United States and Canada. It utilizes a certification program that will provide technicians recognition for the education, training, and experience they have in the service and repair of emergency vehicles. It also provides continuing education to ensure technicians are kept abreast of emergency vehicle industry changes. Various tracks exist based on the types of apparatus serviced by the EVT:

- The Fire Apparatus Technician Certification track is for those technicians who service and maintain fire department pumpers, squads, aerial devices, tankers, wildland apparatus, etc. The Fire Apparatus Track exams cover the design and performance standards, specialized systems and equipment, and accepted practices used in the service and maintenance of fire apparatus.
- The Ambulance Technician Certification covers the design and performance standards, the specialized systems and equipment, and the accepted practices used in the service and maintenance of ambulances.
- The ARFF Technician Certification cover the design and performance standard and preventive maintenance, chassis and vehicle performance, and the extinguishment systems of ARFF vehicles.
- The Law Enforcement Technician Certification covers specialized equipment installation.
- The Management Certification Track recognizes shop foreman and supervisors.

Apparatus Replacement

Like all mechanical devices, fire apparatus has a limited lifespan based on reliability concerns. This reliability factor is influenced by mileage, engine hours, quality of the preventative maintenance program, technology advancements, quality of the driver training program, quality of the original builder and components, availability of parts, and whether the vehicle utilizes a custom or commercial chassis. Also, the general overall appearance of the vehicle related to body deterioration/corrosion and or damage.

Over the years, NFPA has attempted to define the life expectancy of apparatus. This has been met with little success due to the numerous variations that impact the apparatus used by individual communities. The 2016 edition of NFPA 1901 provides a generalized statement recommending that fire departments evaluate whether to retain fire apparatus in a front-line capacity for more than 15 years-based on safety considerations.

> *It is recommended that apparatus more than 15 years old that have been properly maintained and that are still in serviceable condition be placed in reserve status; be upgraded in accordance with NFPA 1912; and incorporate as many features as possible of the current fire apparatus standard. Apparatus that was not manufactured to the applicable NFPA fire apparatus standard or that are over 25 years old should be replaced.*

The issue with this recommendation in NFPA 1901 is that one size does not fits all. Therefore, it would be wrong to compare the need to replace Skagway apparatus with that of a large city where regular usage is much higher. Also, a significant factor in today's apparatus replacement is the rapidly changing area of technology, much of which is related to firefighter safety. This technology/safety factor must be evaluated when determining the need for apparatus replacement.

Currently, Skagway Fire Department does not have an apparatus replacement program. It also does not officially separate front-line from reserve apparatus. Based on the overall call volume of the department, it is not recommended that Skagway begin maintaining a reserve fleet but should rather consider all apparatus as front-line.

Since no replacement program exists, the lead consultant, based solely on his experience in managing a fire service fleet, offers a general replacement schedule that focuses on the specific type of apparatus:

Table 25: Recommended Apparatus Replacement Schedule

Apparatus Type	Serviceable Life
Engines/Pumper	20 Years
Pumper/Tenders	25 Years
Ambulances	10 Years
Heavy Rescue	25 Years
Light Rescue / Type VI Fire Engines	20 Years
Command Vehicles	10 Years
Utility Vehicles	15 Years
Boats	As Needed
Specialty Vehicles (ATV, Trailers, etc.)	As Needed

Looking at the existing fleet and the limited information provided related to maintenance costs and apparatus condition, the following suggestions are made for each piece of apparatus. The column titled Recommendation/Replacement Year is color coded as follows related to overall action needed:

- Red = Action Needed Immediately
- Yellow = Action Needed Soon
- Green = No Immediate Action Required

Table 26: Recommend Apparatus Replacement Status Report

Apparatus	Apparatus Type	Year	Age	Condition	Recommendation/Replacement Year
Chief's Tahoe	Command				
Command 1	Command	2006	15	Poor	Replace
Engine 23	Engine/Pumper	2002	19	Good	Consider replacement in near future
Engine 4	Engine/Pumper	2008	13	Very Good	2028
Tender 20	Pumper/Tender	1992	29	Poor	Replace
Tender 31	Pumper/Tender	2017	4	Excellent	2042
Rescue 5	Heavy Rescue	2009	12	Very Good	2034
Rescue 26	Light Rescue	2001	20	Good	Consider replacement in near future
Ambulance 30	Ambulance	2013	8	Good	2023
Ambulance 32	Ambulance	2018	3	Very Good	2028

Ambulance 22	Ambulance			Poor	Remove from service and dispose the unit ASAP. Do not replace.
Brush 29	Utility	2011	10	Good	2026
Six Wheeled Vehicle	Specialty Vehicle			Good	Unknown
Four Wheeled Vehicle	Specialty Vehicle	2021	0	Excellent	Unknown
SERV-U	Boat	2006	15	Good	Unknown

Sinking Fund/Escrow Account

Due to the price associated with modern apparatus, it is wise to utilize a sinking fund/escrow system to plan for future purchases. A sinking fund/escrow system allows funds to be saved throughout the life of the apparatus. By using an established replacement schedule, while diligently working to ensure that the annual contribution to the fund is made, the department will be able to replace apparatus before its serviceability diminishes.

This type of funding also allows a "smoothing" of annual revenue needs thereby making budgeting more efficient. As an example, a new command vehicle may cost around $65,000 while an engine could cost as much as $600,000. Ladder trucks and tower ladder are now costing well over a million dollars. These varying numbers make it difficult for most communities to maintain a consistent tax levy/revenue model when including apparatus purchases into their capital program. By utilizing a sinking fund/escrow account, this large revenue need is spread over the life of the apparatus.

To use this model effectively, Skagway needs to determine the future cost of each apparatus. To do this the serviceable life of the apparatus must be identified. A percentage multiplier is then applied against the original purchase price, compounded annually, to determine the replacement cost of the vehicle. This number is then divided by the life expectancy of the vehicle to determine the annual sinking fund payment. This payment can then be divided by twelve to calculate a monthly payment (depending on how Skagway wants to manage contributions to the fund).

The formula for calculating the future cost of the rig based on the compounded interested is:

FV = PV (1+i)n

- FV = Future Value (anticipated replacement cost)
- PV = Present Value (original purchase price)
- i = Inflationary Multiplier in Years
- n = Planned Service Life

One of the biggest challenges in using this model is determining the percentage multiplier. The difficulty comes about based on the number of years that fire apparatus are kept in service. Many departments commonly schedule apparatus to have a 20 to 25-year serviceable life. A great deal can change in technology and standards over 25-years. Using the historical cost increases seen by the lead consultant, the following annual percentage multipliers are suggested:

- Command vehicles, pickup trucks, and light duty utility vehicles – 2.5%
- Ambulances – 5%
- Pumpers, rescues, aerial apparatus – 5%

Depending on future trends, these multipliers may need to be modified, but for today they seem to be working well. It is also recommended that other items such as SCBA be included into the sinking fund. The multiplier that seems to work well for SCBA is 2.5%.

As an example, the below sinking fund was created for Skagway Fire Department using apparatus where the original purchase price had been provided as part of the submitted data.

Table 27: Example - Apparatus Sinking Fund

APPARATUS SINKING FUND *Calendar Year 2021*									
Apparatus Identifier	**Vehicle Description**	**Purchase Year**	**Purchase Price**	**Planned Service Life in Years**	**Planned Replacement Year**	**Inflationary Multiplier**	**Anticipated Replacement Cost**	**Sinking Fund Annual Contribution**	**Monthly Contribution**
Command 1	Command Vehicle	2006	$32,673	10	2021	2.5%	$41,824	$4,182	$349
Engine 4	Pumper	2008	$425,376	20	2028	5.0%	$1,128,649	$56,432	$4,703
Tender 31	Pumper/Tender	2017	$356,000	25	2042	5.0%	$1,205,542	$48,222	$4,018
Rescue 5	Heavy Rescue	2009	$252,000	25	2034	5.0%	$853,361	$34,134	$2,845
Ambulance 32	Ambulance	2018	$167,850	10	2028	5.0%	$273,410	$27,341	$2,278
SERV-U	Boat	2006	$260,000	30	2036	2.5%	$545,368	$18,179	$1,515
								$188,491	**$15,708**

Additional Apparatus Needed

Aerial Apparatus

Aerial apparatus come in a variety of configurations and combinations. Some are designed with an aerial ladder (75' or longer) attached to a rotating turntable mounted to a chassis. Others have pumps, pre-piped waterways, and in the case of a tower ladder, a basket/rescue platform that includes a high-capacity water stream. Some units are equipped with pumps (aerial apparatus equipped with pumps are called Quints) while others not having pumps are required to be supplied from another pumping fire apparatus.

When considering the addition of an aerial apparatus, a few guiding questions can help determine whether an aerial apparatus is justified.

1. If the department's ground ladders will not reach the upper windows or roof of structures built in the community.
    a. *Skagway's longest ground ladder is a 35'.*
    b. *There are numerous structures in which a 35' ground ladder will not reach the windows or the roof.*
2. If the department has limited staffing – enough available personnel to timely throw and raise ladders while simultaneously advancing hose lines.
    a. *Skagway operates with a very small firefighting staff. It typically takes 3 – 4 firefighters to effectively position and extend a 35' ladder.*
    b. *The number of responding staff compared against the timely positioning of a ground ladder is almost impossible.*
3. If the terrain/topography and/or proximity of other buildings are constructed such that ground ladders cannot be positioned at a 65° - 75° climbing angle, and/or such challenges eliminate the possibility of deploying ladders to upper windows, an aerial unit is considered the most efficient and safest option.
    a. Skagway has numerous situations where the proper climbing angle cannot be accomplished.
    b. Skagway has a few cases where the upper story windows cannot be reached by properly positioned ground ladders.

Additionally, during Skagway's last ISO evaluation, it was noted that there are several target hazards that are 3-stories or more in height, and/or have a needed fire flow of greater than 3,500 GPM. A serious fire in any of these occupancies/structures would likely require a high-volume elevated stream to control. The aerial could also be used for victim rescue and as strong stable work platform for cutting and opening roof structures.

It is the lead consultant's opinion that an aerial apparatus is justified. The best aerial apparatus, based on an assessment of the community's risk potential as well as the fire department staff, is a heavy-duty tower ladder equipped with a pump and tank (Quint).

Due to the numerous elevated heights in Skagway, a tower ladder offers the most versatility for both firefighting and rescue operations. It provides a stable and safe working platform for firefighter/medics and allows efficient removal of victims from elevated positions. Patients who become ill or injured while working at a height can efficiently be loaded and transferred to the ground while medical care continues. The platform can also be used as an anchor point for confined space and lifting operations. The versatility compared against the target hazards of Skagway make this type of unit especially appealing.

The tower ladder should be purchased in the 100' length. The length of the ladder is rarely used for a vertical maneuver but is frequently needed for horizontal reach while addressing setbacks (i.e., street to work area). This horizontal reach will be important in Skagway when working in areas around the harbor, port, or on several of the commercial structures.

Figure 95: Example Photo of a Tower Ladder

The photo is an example of a 100' Tower Ladder Quint. The pump has a capacity of 2,000 GPM and a 300-gallon water tank. When writing specifications for a new tower ladder, Skagway should consider foam capabilities that allow delivery from the basket master stream.

Figure 96: Example Photo of Patient Rescue w/EMS Care

As an example of the versatility of a tower ladder, two-photos are shared from the lead consultant's former fire department. The pictures show a patient being treated who experienced a cardiac arrest while working on an air handling unit on the roof of a shopping center. Firefighter/Paramedics treated the patient on the roof and then efficiently removed him to the ground for transport to the hospital.

This is just one example of the unique design capabilities of this type of unit and why the consultants recommend this style of aerial apparatus for Skagway Fire Department.

Figure 97: Example Photo of Patient Rescue w/EMS Care

Fire Boat

As stated earlier in this report, the department's current boat is not appropriate to provide protection to the 18th most visited cruise destination in the world. It is really nothing more than a victim rescue craft with limited capability to provide fire protection to the boats in the Harbor. It has zero usefulness to address the fire suppression needs of the cruise industry.

In recent years the cruise industry has come under intense criticism for its environmental impact. The primary criticism revolves around emissions generated by diesel engines. To address this concern, there is a rapid push to replace cruise ship diesel engines with those powered by Liquid Natural Gas (LNG). New ships are being constructed using LNG technology with the first fully LNG ship to homeport in North America arriving in Port Canaveral in 2021. LNG as a fuel source produces 20% less carbon dioxide emissions than diesel and the combustion does not emit soot, dust, or fumes. The fuel tanks do however take up more room on the ship since the fuel density of LNG is lower than diesel thereby necessitating twice the tank size needed to travel the same distance.

Based on the need to protect the inner waterways of Alaska, it can be surmised that LNG powered cruise ships will soon be the primary vessels arriving in port at Skagway. Depending on the location of LNG fueling centers, Skagway may also find itself in a position where an LNG ground storage site is proposed.

The challenge for the fire service in working with LNG is twofold:

1. The cryogenic nature of the product which must be maintained at -260° for it to remain a liquid.
2. Water will not extinguish an LNG fire. Water can be used in high volumes (gallons per minute) to divert vapor clouds away from ignition sources, but the extinguishing agent used for LNG fires is Dry Chemical. Purple-K is the preferred dry chemical. Purple-K is a free-flowing, water repellent,

non-abrasive agent specifically formulated to create a highly visible, dark violet discharge stream. This visibility assists the firefighter in precisely directing the dry chemical stream (or dual foam/dry chemical stream) for efficient firefighting application. There is also a need for High Expansion Foam Generators to flood LNG retention/tank areas. The foam reduces the flames intensity while minimizing the volume of vapor emission, while allowing the dry chemical to extinguish the fire.

To address this change in fuel source, a fire boat capable of flowing large quantities of water as well as being equipped with both foam and dry chemical extinguishing agents is necessary. New custom-built fire boats are commonly being constructed with remote operated bow, rooftop, and aft deck monitors (large capacity water nozzles) that provide a combined flow of between 6,000 – 10,000 gallons per minute.

As an example, in preparation for the arrival of LNG powered cruise ships, Canaveral Fire Rescue, which protects the Port of Canaveral (FL) recently placed in service a new fire boat able to flow 8,500 gallons per minute. It also carries 500-gallons of foam and a Purple-K dry-chemical extinguishment system. It is equipped with 2.5" handline connections and a 5" hydrant outlet that can be used to supplement land-based firefighting.

In addition to its firefighting capabilities, it is designed to allow on-board patient EMS care while also being equipped with technologies to function as an on-scene command vessel for maritime mass rescue operations. This new fire boat was jointly funded by grants from the State of Florida as well as a FEMA Port Security Grant. The Port of Canaveral also contributed funds for the purchase.

Due to the quickly advancing change in cruise ship propulsion, Skagway needs to begin investigating options for the acquisition of a fire boat designed to address the impact of this new fueling source.

RECOMMENDATIONS

- *Two (2) SCBA units should be added to each of the ambulances including a selection of basic fire service "truck company hand tools" (Halligan Bar, Flat Head Axe, 6' hook, search rope, hand lights, a thermal imager, etc.).* ***Priority 2***
- *Remove from service and dispose of Ambulance 22. Do not replace.* ***Priority 1***
- *Move to a standardized pump GPM size for all engines/pumpers and pumpers/tenders. This should likely be 2000 GPM.* ***Priority 4***
- *When Rescue 26 is replaced, evaluate moving to a Type III wildland fire engines that can both accommodate the search and rescue tools while providing enhanced wildland suppression capabilities including an increased safety factor due to the increased weight carrying capability of the larger chassis.* ***Priority 5***
- *The fire chief should continue to continue to operate and respond with a take-home vehicle, but it should be upgraded to include a rear command module.* ***Priority 2***

- *When command vehicles are replaced, the department should move to pickup trucks equipped with bed toppers. These units should also be equipped with command modules.* ***Priority 4***
- *Transfer all apparatus and small tool maintenance to the Fleet Services Division of Public Works. To accommodate the additional workload, it is recommended that an additional mechanic be hired and that all personnel assigned to work on fire apparatus receive training and become certified as Emergency Vehicle Technicians (EVTs) as appropriate.* ***Priority 2***
- *The department should adopt an apparatus replacement schedule and begin the creation of a sinking fund that will allow funds to be escrowed for future apparatus replacement needs. SCBA should be included as part of this sinking fund based on a 15-year replacement.* ***Priority 2***
- *Take action to replace apparatus listed as "RED" in the Recommendation/Replacement Schedule.* ***Priority 2***
- *The department should plan for the purchase of a 100' tower ladder quint equipped with a pre-piped waterway and monitor capable of flowing a minimum of 1,000 GPM, pre-piped 2.5" standpipe connections, stokes basket rescue attachments, and basket mounted lifting/high angle rings.* ***Priority 3***
- *Based on the quickly advancing changes in cruise ship propulsion, the department needs to begin investigating options for the acquisition of a fire boat designed to address the impact of LNG as a fuel source.* ***Priority 3***

Training

Training is a fundamental necessity of every fire department. As a general statement, all fire departments, regardless of size and geographic location are required to do two things well:

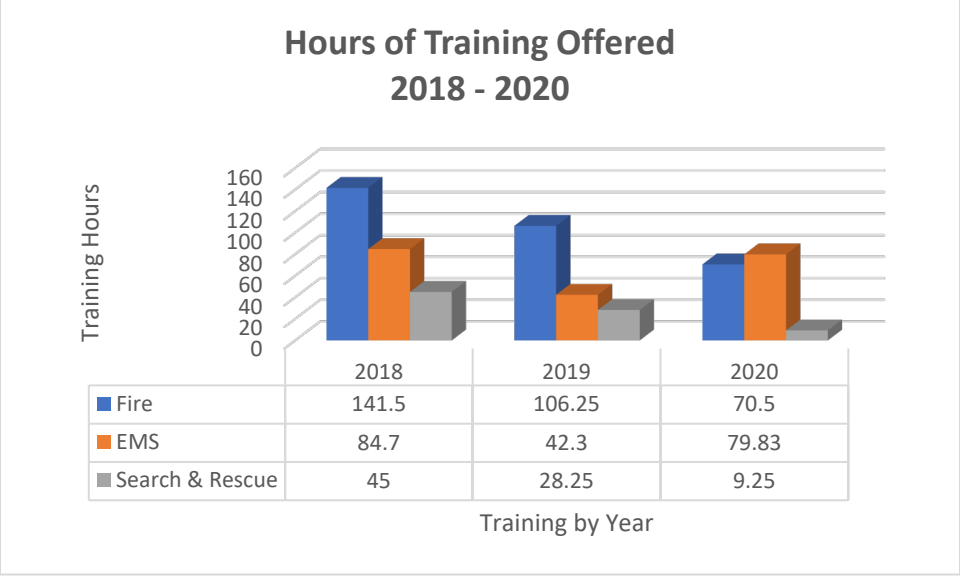
1. Continually train their personnel so they can be at a constant state of operational readiness
2. Respond when called – providing the help that is needed

Fire Departments have become full-service organizations handling needs far beyond responding to just fires. Departments are "all-hazard" response agencies requiring vast expertise in a multitude of areas. This requires extensive and ongoing training to ensure the readiness of personnel to meet the various and evolving demands of a community. The overarching goal in training firefighters should be to create smart firefighters who can think through problems to find solutions.

Most of Skagway's training is conducted through regularly scheduled drill times where classes are taught by in-house instructors. Generally, these trainings are broken into the disciplines of fire, EMS, and Search & Rescue. Although there may be some level of overlap, the trainings are tracked separately since not every skill applies to each discipline.

For calendar years 2018 – 2020 Skagway Fire Department held a number of training classes for department members. Each of these classes ranged in time from 30-minutes to several hours. The chart below shows the amount of training hours offered for each discipline, broken down by calendar year. This chart excludes hours of training required to obtain initial certifications (e.g., Emergency Trauma Technician, EMT, Firefighter 1, etc.).

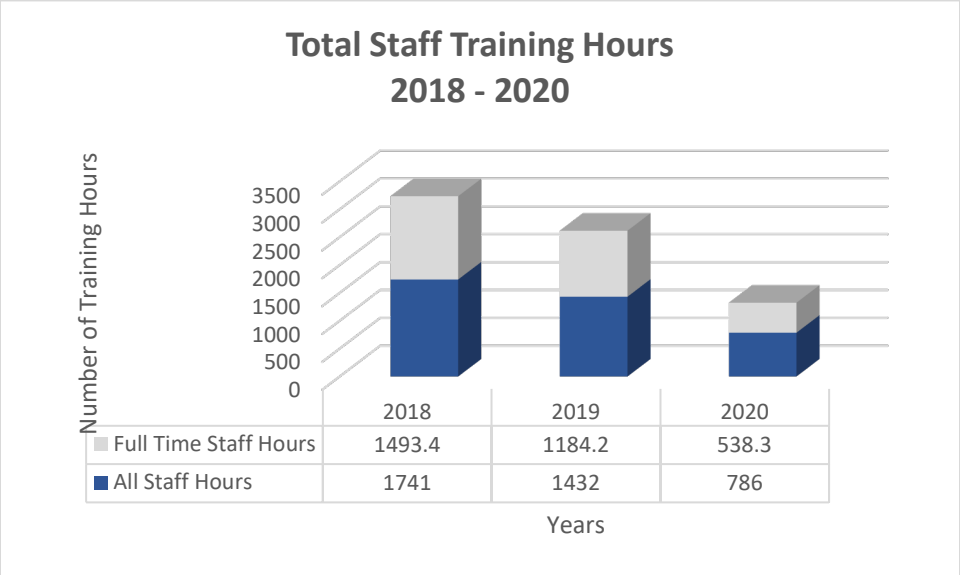
Figure 98: Hours of Training Offered by Skagway



EMS hours noted in this chart are used as part of the required continuing education needed for licensure. All EMTs, regardless of certification level, must maintain an up-to-date CPR certificate and then complete over the course of two years a minimum of 48 hours of EMS continuing education. Skagway strives to offer enough EMS continuing education hours in-house for EMTs to maintain their license.

Within the number of hours offered by Skagway, the following chart depicts the total number of employee hours for those who took part in the trainings. Within the total hours shown is the amount of participation by full time staff. These numbers do not include business meetings, board of advisor meetings, or work sessions. Although these hours were counted in the data provided for the consultants to review, these hours were excluded because they do not constitute training. Going forward these hours should not be included within staff training records.

Figure 99: Total Staff Training Hours (Vol. and Paid Personnel)



Since training hours for certification were excluded from the above charts, they are detailed in the chart below. These are one-time trainings, usually involving multiple days and/or weeks, where participants are tested by either the Alaska Department of Public Safety Fire and Life Safety – Fire Accreditation Standards and Training Division or the Alaska Department of Health and Social Services. If participants complete the training and meet the testing standards, they receive their base certification for that discipline. Some certifications require annual continuing education hours, but not all.

Figure 100: Training Hours Conducted for Member Certification

Below is a list of Skagway staff who received certifications during 2018-2020:

Table 28: Certifications Obtained in 2018-2020

Employee Name	Certification	Hours	Year of Training
Alex Matsov	Emergency Trauma Technician	50	2018
Richard Ackerman	Emergency Medical Technician 1	160	2019
Richard Ackerman	Firefighter 1	240	2019
Jodie Brown	Emergency Trauma Technician	50	2019
Steve Greenleaf	Emergency Medical Technician 1	160	2019
John Hinricks	Emergency Trauma Technician	50	2019
Pam Joy	Emergency Trauma Technician	50	2019
Pan Joy	Emergency Medical Technician 1	120	2019
Chezare Leipold	Emergency Trauma Technician	50	2019
Paul Myers	Emergency Trauma Technician	50	2019
Paul Myers	Emergency Medical Technician 1	120	2019
Paul Myers	Firefighter 1	240	2019
Jennifer Pierce	Emergency Trauma Technician	50	2019
Joseph Rau	Emergency Trauma Technician	50	2019
Joseph Rau	Emergency Medical Technician 1	120	2019
Emily Rauscher	Methods of Instruction	80	2019
Willeke Van de Hoorn	Emergency Medical Technician 1	160	2019
Abby Myers	Emergency Vehicle Driving	200	2020
Paul Myers	Emergency Vehicle Driving	200	2020
Emily Rauscher	Emergency Medical Technician 3	68	2020

Training Reimbursement Contracts

Of those personnel receiving certification training over the last three years, only seven (7) of those trained are still with the department. Four (4) of these members are not active and one (1) just left for a position in the police department.

Certification training is expensive and time consuming. The consultants recommend that the department begin having students who want to take certification training sign a training reimbursement contract.

> *Upon certification, the member must continue actively serving the department for a 3-year period. Those leaving before completing their 3-year commitment or who become inactive shall reimburse the Municipality of Skagway a prorated amount of the tuition based on the time served. The prorated scale will be calculated based on the last full month of service.*

Reimbursement contracts should be applied to both paid and volunteer staff. Recovery of funds may need to include a legal process where employee wages are garnished from a current or future employer.

Certifications

The department has a handful of members who hold state/national levels of certification(s). This should be a focus area as the department moves forward. Although certifications/licenses are not needed, except in the case of Emergency Medical Services, certifications due reflect professional standards related to training and testing. Having department members meet accredited standards helps to lessons liability and enhances the professionalism of the organization. The table below shows members' certification at the time of the study.

Table 29: Member Certification Listing - 2021

Member Certification Listing	
Certification	**Number of Members Certified**
Emergency Trauma Technician	0
EMT – 1	6
EMT – 2	0
EMT – 3	1
EMT – Paramedic	0
Firefighter – 1	2
Firefighter – 2	1
Fire Officer – 1	0
Fire Officer – 2	0
Red Card	5
Fire Investigator	0
Fire Inspector	0
Swift Water Technician	4
Technical Rope Rescue Tech I	3
Technical Rope Rescue Tech II	2
Incident Safety Officer	0
Methods of Instruction	3

Authority Having Jurisdiction

The concept of an authority having jurisdiction (AHJ) has been in safety standards for a very long time. An AHJ, for this purpose, is an individual who is responsible to determine and apply standards and requirements on behalf of the organization. In the case of a fire department, the AHJ is responsible to determine what requirements are needed for the performance of those employed by the department. In other words, it is not possible to have firefighters trained and certified in all areas of performance. AHJs have the responsibility to evaluate what skills and testing standards are required to perform safely and efficiently within an individual agency, and then responsibility to ensure that the personnel meet these established standards.

When determining standards, the AHJ must look to state and federal regulations related to mandatory standards. As an example, an AHJ cannot approve a firefighter to function as an EMT unless they have been trained and meet the standards of the licensing authority. This has been codified by state law. Likewise, an AHJ must adhere to regulations established by OSHA through the Code of Federal Regulations. The AHJ does not however need to comply with NFPA standards unless a particular standard has been formally adopted by the governing authority. NFPA standards are consensus standards designed to make recommendations on "best practices." They are not law. Best practices will likely influence the

AHJs decision making process but should not be the only determining factor. Similarly, a state may establish educational certification programs, but unless mandated by statute, the certifications are not required and the AHJ has the authority to choose whether to have their personnel trained at that certification level or whether to choose another training standard based on the needs of their specific organization.

This is important to understand that some will lead you to believe that personnel cannot be trained and allowed to function as a firefighter without a specific state certification (e.g., firefighter 1). Although it is desirable to have all firefighters trained to this base standard, it is likely an impossibility in a combination organization like Skagway. Therefore, the fire chief, acting as the AHJ has the responsibility to determine the base level of training required to perform certain skills within Skagway Fire Department.

Suggested Training Curriculum under AHJ

Occupational Safety and Health Administration's (OSHA) Regulation 29 Code of Federal Regulations (CFR) 1910.156(c)(1),["§1910.156(c)(1)"] for "Fire Brigades reads:

> *The employer shall provide training and education for all fire brigade members commensurate with those duties and functions that fire brigade members are expected to perform. Such training and education shall be provided to fire brigade members before they perform fire brigade emergency activities. Fire brigade leaders and training instructors shall be provided with training and education which is more comprehensive than that provided to other general membership of the fire brigade.*

"Fire Brigade" as referenced in the OSHA regulation, means the fire department. A fire department is defined as any entity providing fire and emergency rescue services including but not limited to career, paid, volunteer or combination fire departments.

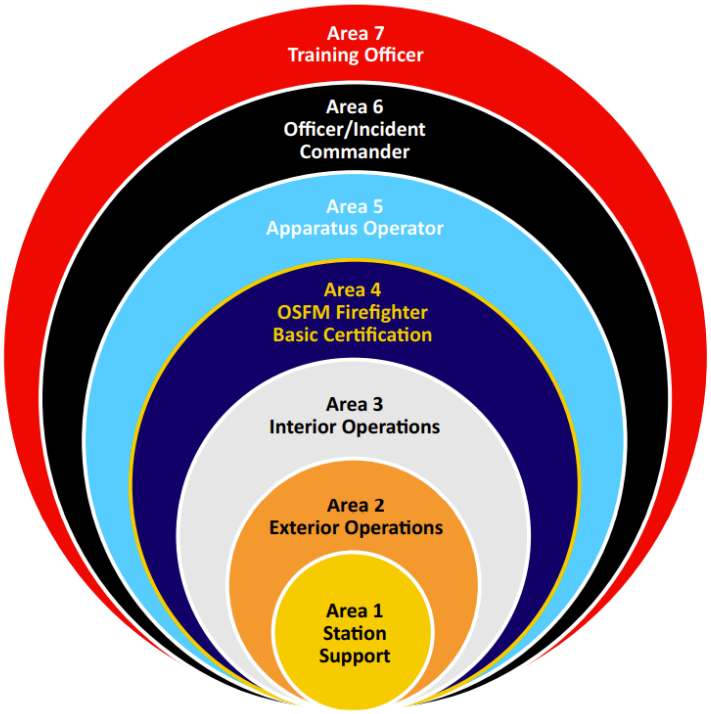
While some OSHA standards contain specific training requirements, the fire brigade standard does not. The decision as to the training standards for each brigade is left up to the AHJ.

The University of Illinois Fire Service Institute – State Fire Academy (IFSI) has developed a recommendation for minimum training standards that is tiered based on the duties and functions of fire department members. The tiered system considers that not all members of a volunteer fire department perform the same functions based on their areas of interest as well as limitations to their physical abilities.

This tiered recommendation system could be used by Skagway to determine the standards and training that is required for employee performance under the AHJ. Paid personnel working for Skagway should be held to a base training standard that includes at a minimum basic firefighter certification as established by the Alaska State Fire Marshal's Office.

The IFSI model utilizes the following graphic to describe the various area of fire department training based on their recommendation. Expanding these modes with a focus on how Skagway operates, the consultants suggest as a minimum the following training topics for each category.

Figure 101: Fire Department Areas of Function



- Area 1 – Support Operations **(Blue Helmet Skills)**
  - Infectious Disease Control
  - First Aid/CPR/AED
  - Standard Operating Guidelines
  - Incident Command
  - Scene Safety and Accountability
  - Communications
  - SCBA Air Systems
  - Emergency Vehicle Driving and Operations which may or may not include pumping and water supply (AFSC Fire Apparatus Driver Operator Training)
  - Small tool operations and safety
  - Traffic Incident Management
  - Firefighter Rehab
  - Hazardous Materials Awareness

- Area 2 – Exterior Support Operations **(Yellow Helmet Skills)**
    - All topics covered in Area 1
    - PPE (structural, medical, wildland)
    - Ropes and Knots
    - Fire Behavior
    - Building Construction
    - Fire Extinguishers
    - Firefighting Strategy and Tactics
    - Water Supply
    - Fire Streams
    - Ladders
    - Ventilation Concepts
    - Red Card
- Area 3 – High Risk (Interior) Operations **(Black Helmet Skills)**
    - All topics covered in Area 1 & 2
    - Medical Evaluation/Fitness for Duty
    - SCBA
    - Search and Rescue
    - Forcible Entry
    - Salvage/Overhaul
    - Thermal Imaging Camera
    - Coordinated Fire Attack
    - Two in / Two out
    - Firefighter Survival/Evacuation/Emergencies/Entrapment/Rescue/Mayday
    - Vehicle Extrication and Rescue
- Area 4 – Basic Firefighter Certification (Firefighter 1 per the standards of the Alaska Department of Public Safety Fire and Life Safety – Fire Accreditation Standards and Training Division

** All training in all areas need to comply with applicable OSHA standards as appropriate.

Training Hours (Amount of Training Needed)

No official training standard exists for ongoing training needed for fire department members. The AHJ should establish and schedule regular training to ensure member competency based on their area of function.

Competencies vs. Training Hours

Beyond the actual training program, today's fire service requires more than simply teaching members how to perform their jobs safely; it requires validation of their competency to do so. A well-constructed training program will employ a system to ensure all members receive required training and document core competencies (Job Performance Requirements).

After personnel are tested/validated using JPRs for each skill, the records should be maintained for each department member as part of their training file.

ISO™ Training Requirements

Although ISO™ is not a regulatory agency, they do establish standards that they utilize when conducting a rating for an individual fire department. ISO™ does not distinguish between career and volunteer employees when it comes to annual training requirements. Many fire departments utilize the ISO™ template as a best practice model with a goal of trying to meet their standards where possible.

The most recent ISO™ annual training hours requirements are illustrated in the table below. The hours listed is what ISO™ requires for receiving maximum credit during an evaluation.

Table 30: ISO Training Requirements

ISO Fire Training Requirements	
Topic	Hours
Company Training	192 – (16 hrs. per firefighter per month)
Hazardous Material	6 – per firefighter per year
Driver Training (existing drivers)	12 – per driver per year
New Driver Training	40 – per new driver
Officer Training	12 – per officer per year
Recruit Training (conducted within the first year of employment)	240 – per recruit
Facility Training (live fire/smoke training)	24 – per firefighter per year
Pre-Planning Review	1/per year - participate in one (1) pre-fire planning inspection per firefighter per year

Training Records

When members complete firefighter training, the department must take care to provide an accurate and detailed report of the training that was conducted. Reference NFPA 1401: Recommended Practice for Fire Service Training Reports and Records on how best to maintain training records.

Additionally, the department should establish a yearly training plan which includes a calendar of training topics. This plan and calendar should be published for all department members with a policy establishing attendance standards.

Officer Training

Fire officer training most frequently consists of operational issues such as the development of strategies and tactic. Often, little attention is focused on the human capital side of management and leadership. Supervising people is often one of an organization's greatest liabilities. The frequency and quality of training an organization provides to its leaders in effectively supervising and mentoring others can provide significant value. Additionally, officers need to remain abreast of the ever-evolving laws governing personnel management and employment standards. The table below illustrates suggested training topics appropriate for all officers regardless of rank.

Table 31: Officer Training Topics

Officer Training Topics	
Principle of Supervision	Managing Change
Management vs. Leadership	Diversity
Legal	Time Management
- Harassment	Delegation
- Discrimination	Performance Management
- Job (race, religion, sex, or national origin)	- Documentation
- Age	- Employee Performance Evaluations
- Disability (Americans with Disabilities Act)	Employee Attitudes
- Military	- Coaching
- Fair Labor Standard Act (FLSA)	- Motivation
- Family Medical Leave Act (FMLA)	- Empowerment
- Gender-pay differences	- Influencing
- Pregnancy	- Discipline
- Immigration	Confidentiality
- Sexual Orientation	Strategic Thinking
Workplace Safety	Political Savvy
Communication	Negotiating
Interpersonal Relationships	Creativity
Team Building	Innovation
Interviewing	Problem Solving
Ethics	Dealing with Conflict

Training Delivery

Classroom, Practical Skills, and Use of Technology

The techniques for delivery of training are rapidly evolving. No longer is the classroom/instructor format the only available option. Today's fire service members are technologically savvy and learn effectively using a variety of educational platforms, including classroom instruction, instruction provided on-line, YouTube style/video-based learning, chatroom interaction, as well as skill station practical training. Departments who fail to train members based on their preferred learning styles coupled with the fact that remote training can be done at any hour and any location are struggling to find members able to commit to the ongoing time demand of being a member of a volunteer/POC emergency service organization.

Skagway should continue utilizing the Lexipol Training Solutions platform for online training where possible. Steps should also be taken to obtain the equipment needed for video conferencing and taping of all classroom trainings and meetings. These should be broadcast and stored so that members can access and complete the training when they are unable to attend in-person.

Although not always possible, personnel who miss practical trainings/skill testing should have the option of making up the JPR testing. Mandatory trainings, such as vehicle extrication, rope rescue, swift water practical exercises, live burn training, etc. should be scheduled far in advance, so members can work the training into their busy schedules.

The quality of instruction is also incredibly important. Instruction needs to be well prepared, high-quality, and effective in meeting the needs of department staff. Department members have a limited amount of time to dedicate to the department, so the training aspect needs to be efficient and not have members feel like their time is being wasted. Personnel assigned to conduct training need to take the time to prepare appropriately and work hard to deliver a training product that meets both the learning needs of the student as well as the organization.

Training Site

The department operates a training facility with live burn capabilities. The site is equipped with props built into the "training cans" that simulate a variety of scenarios faced by Skagway firefighters. These training props should be expanded.

Figure 102: Training Site

Currently live burn evolutions are restricted to portable trailers designed for that purpose. Although the trailers offer experience with live fire and smoke, they are limited for experienced firefighters who need to practice coordinated fire attack evolutions (engine, truck, and

incident command). An expansion of the existing prop constructed of shipping containers is recommended and could be done at a very economical price.

The training site also boasts a workshop where the department can construct and maintain training props. This type of facility is important for the sustained operation of a live burn/hands-on training facility.

The department should seek to schedule a live fire/smoke training at least quarterly. A goal should be established to have all fire suppression members attend a minimum of 12-hours of live burn training annually.

Figure 103: Training Site Workshop

Figure 104: Training Windows in Hose Tower at Fire Hall

Figure 105: Smoke Trainer

Figure 106: Smoke Trainer

Along with the training props constructed/housed at the training site, the Fire Hall hose tower is also constructed to facilitate a variety of training. The tower has windows equipped with anchor points to allow rope rescue training. It also has confined space lifting points where members can practice the use of tripods and patient removal using SKED packaging devices.

Figure 107: Hose Tower Training Window

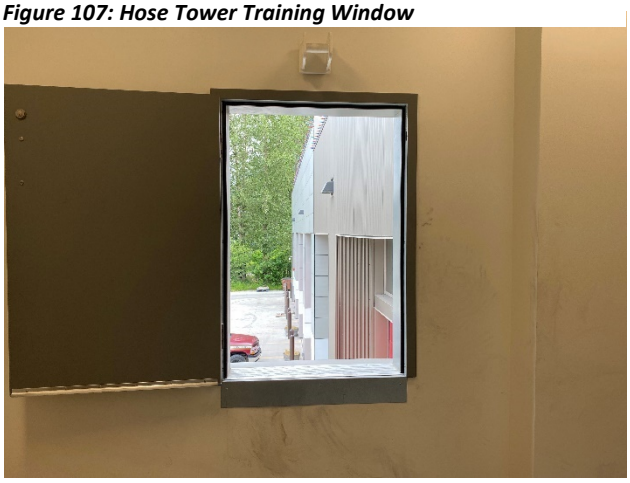


Figure 108: Rope Rescue Anchor Points - Fire Hall Hose Tower

Figure 109: Confined Space Lifting Point - Fire Hall Hose Tower

RECOMMENDATIONS

- *Non-training hours such as business meetings and work sessions need to be excluded from the training reports since they will not be counted by ISO.* ***Priority 5***
- *Establish an educational reimbursement contract for employees (paid and volunteer) who attend and receive professional certifications.* ***Priority 4***
- *The fire chief, acting as the AHJ, should implement a tiered training standard for all department employees based on areas of operation and skill set.* ***Priority 2***
- *All paid personnel should as a condition of employment be trained to a minimum of Firefighter 1 and Emergency Medical Technician - 3.* ***Priority 1***
- *The Fire Chief, acting as the AHJ, should establish a yearly training plan delineating the minimum number of training hours, including specific required topics for personnel to remain as an active member of the department.* ***Priority 4***
- *Using NFPA 1401 as a guide, establish a system for the maintenance of training records including JPR skill evaluations. This system needs to track training for all department employees (paid and volunteer).* ***Priority 5***
- *The Fire Chief, acting as the AHJ, should establish a yearly training plan for officers that includes strategy, tactics, and soft skills that focus on the human capital side of management and leadership.* ***Priority 4***
- *The department should continue utilizing the Lexipol Training Solutions platform for online training where possible.* ***Priority 2***
- *Steps should be taken to broadcast and stored training sessions so members can access and complete the training when they are not able to attend in-person.* ***Priority 4***
- *The training site should be expanded to increase live burn/smoke training capabilities.* ***Priority 5***

- *Training props should be expanded with a focus on the specific hazards found in Skagway.* ***Priority 5***
- *Live fire/smoke training should be scheduled at least quarterly. Set as a goal that all fire suppression members attend a minimum of 12-hours of live burn training annually.* ***Priority 3***

Mutual Aid

Mutual aid is a formalized process where neighboring emergency service agencies agree to aid a stricken agency when help is requested. The mutual aid process recognizes that very few departments are completely "stand alone" and that from time to time, a large-scale incident will occur, or heavy call volume will tax the capabilities of an individual response agency. When this occurs, mutual aid partners stand at the ready to respond and give aid as needed.

In most U.S. communities, assistance in the form of mutual aid is readily available and response partners can be on-scene with personnel and apparatus in a relatively short timeframe. This is not the case in Skagway. A search of potential mutual aid partners reveals the following:

- Haines, AK:
  - Volunteer Fire Department
  - Able to respond with personnel only
  - Response time of 30 – 40 minutes by boat
- Juneau, AK
  - Combination (Paid and Volunteer) Fire Department
  - Able to respond with personnel only
  - Response time of 45 – 60 minutes by air
  - Can provide EMS personnel for a mass casualty incident
- Carcross Fire Department, Yukon Territory
  - Volunteer Fire Department
  - Unknown as to available staff and services
  - Response time of 1.5 hours by ground (65 miles)
- Mt. Lorne Fire Department, Yukon Territory
  - Volunteer Fire Department
  - Unknown as to available staff and services
  - Response time of 2 hours by ground (86 miles)
- Whitehorse Fire and Protective Services
  - Combination (Paid and Part-time) Fire Department
  - Able to respond with personnel and apparatus
  - Response time of 2.25 hours by ground (180 miles)

- Yukon Fire Marshal's Office
    - Unknown type agency
    - Offices located in Whitehorse

Based on the inability for Skagway to receive timely assistance from a mutual aid partner, it is imperative that Skagway operate as an "all hazards" department prepared to respond to all incident types based on the level of risk/threats and target hazards found within the community.

Department leadership also needs to work on building relationships with the above listed potential mutual aid partners. Based on the response capabilities of each, a memorandum of understanding needs to be established to allow a mutual aid response when needed. Important to remember with any mutual aid program is the fact that the response can be multidirectional, meaning that Skagway can request assistance, and so can the other mutual aid partner. When this occurs, Skagway will need to send apparatus and personnel to the other communities/departments as requested.

Training is a critical component of an effective mutual aid program. Although it is desirable to train with mutual aid partners on a quarterly basis, this is probably unrealistic for Skagway due to the geographical challenges and distance between departments. Fire department leadership should try to communicate with these partners regularly. Attempts should also be made to host and/or send personnel to at least one training annually with the Haines, Juneau, and Whitehorse departments.

Since TEMSCO Helicopters are periodically used for fire department rescue operations, a memorandum of understanding needs to be signed with this business. This will provide a level of protection for both Skagway and TEMSCO and outline expectations.

RECOMMENDATIONS

- *Department leadership needs to begin building relationships with possible mutual aid partners.* ***Priority 4***
- *Establish a signed memorandum of understanding with each department interested and able to assist Skagway.* ***Priority 4***
- *Set as a goal to host and/or send personnel to at least one mutual aid training annually. Training should focus on the departments in Haines, Juneau, and Whitehorse.* ***Priority 4***
- *A memorandum of understanding needs to be signed with TEMSCO for assistance during rescue operations.* ***Priority 4***

Inspections/Public Education

The key to reducing loss and minimizing injuries from fires comes through a multi-stage approach that involves permitting, plan reviews, inspections, code enforcement, pre-incident planning, public education, and fire cause investigations.

Fire/Life Safety Inspections

Fire inspections within Skagway are overseen by one of the paid fire department staff members. Records indicate that the department is conducting approximately 108 inspections annually. The consultant conducted a "random file pull" of inspection records for various businesses. Each file was found to have a completed report indicating an inspection within the last 12-months.

The consultant was provided with a 1-page basic inspection report with sections referenced as follows:

- Fire Protection System
- Fire Extinguishers
- Electrical
- House Keeping & Storage
- Exits

Within each of the above major headings, the inspection form uses a YES/NO checklist along with a reference to the applicable section of the 2006 International Fire Code. The form serves as a very rudimentary evaluation tool. The form falls short by not providing room for documenting violations beyond the YES/NO statements and no reinspection and follow up dates are shown. Additionally, there is no mechanism for providing a copy of the inspection to the building owner/manager/responsible party, or a place to obtain their signature.

Room for Fraudulent Inspections

Although not suggesting that this is the case, the way this form is designed, it could easily allow unscrupulous inspectors to simply complete the documentation and mark the inspection complete without setting foot into the occupancy/business. This needs to be corrected before the 2022 business inspection process begins.

Attitude Toward Inspections

The inspection process needs to be viewed as a learning opportunity where the occupant/business is assisted in reducing their risk of fire. The process should never be initiated with a punitive feel, but rather "we as the fire department are here to help you be successful and safe." When a problem is uncovered, the owner/manager/responsible party needs to understand what needs to be done to correct the problem and reduce their risk (i.e., pass the inspection) and how to get assistance with questions. The goal should be to help them understand "what right looks like."

Documentation

This entire process needs to be documented and maintained for future reference. It is also helpful to include photos showing the problems identified so they can be compared against the corrections made. Although this information can be included in a paper inspection file, most records management systems, including ESO, have an electronic inspection software package available. Many departments utilize an iPad or tablet where inspections can be completed, codes referenced as necessary, photos taken and attached to inspection files, and the entire document emailed to the owner/manager/responsible party.

The consultants recommend moving to an electronic inspection process utilizing ESO software.

Pre-Incident Planning

Pre-Incident planning is an activity that is conducted by fire departments to become familiar with a building, the occupants, construction techniques, specific hazards, and adjacent structures prior to an emergency incident. Armed with this prior knowledge, firefighters are better equipped to address a fire or emergency in a particular building, thereby increasing the margin of safety for both occupants and firefighters.

ISO™ states as part of their fire department rating schedule that a building familiarization/pre-incident planning program should be implemented by all departments:

> *The community should conduct a pre-fire planning inspection of each commercial, industrial, institutional, and other similar structure once a year for maximum credit in the Fire Suppression Rating Schedule (FSRS). Records of the inspections should include complete and up-to-date notes and sketches.*

Pre-incident planning can be conducted at the time of the fire inspection and then incorporated into the training curriculum for all fire department personnel. The ESO records management system also allows development of formalized pre-plans that can be accessed via computer/iPad/tablet on-scene during an emergency event.

Information typically contained in each pre-plans include:

- Location—address
- Operating information and access
- Occupancy information
- Special hazards
- Type of construction
- Available water supply
- Building protection systems
- Utilities—including location of shut-offs
- Exposures

- Special resource considerations
- Technical rescue exposures
- Additional applicable information

The lead consultant recommends that a formalized pre-incident planning procedure be developed and implemented as part of the fire inspection process. This process should include drawings and photos. This information should be available to incident commanders operating in the field. The pre-incident plans should also be incorporated into the training curriculum with regular updates provided for all department personnel.

Public Education

Public education is an opportunity for the department to interact with community members and businesses while sharing an overall safety message. Public Education/Outreach records indicate that in 2018 and 2019 the department held events as follows:

Table 32: Public Education Events 2018 & 2019

Public Education Events: 2018 & 2019		
Event	**2018**	**2019**
Sr. Lunch Vitals: First Presbyterian Church	1/19/2018	
Sr. Lunch Vitals: First Presbyterian Church	2/23/2018	
Jr. Ranger Day	7/19/2018	
Sr. Lunch Vitals: First Presbyterian Church	10/19/18	
Sr. Lunch Vitals: First Presbyterian Church	12/21/2018	
Sr. Lunch Vitals: First Presbyterian Church		1/25/2019
Sr. Lunch Vitals: First Presbyterian Church		2/22/2019
Easter Bunny Delivery		4/21/2019
Fire Extinguisher Training: Public Outreach		4/26/19
Fire Extinguisher Training: Girl Scouts of Alaska		8/7/2019
School Fire & EMS Presentation		10/25/21

Although these everts are beneficial, the overall audience is limited as is the message. The United States Fire Administration via their website: https://www.usfa.fema.gov/prevention/ provides regular public education messaging that is available for use by departments.

> *The U.S. Fire Administration (USFA) develops and delivers fire prevention and safety education programs in partnership with other federal agencies, the fire and emergency response community, the media, and safety interest groups. We also work with the public and private groups to promote and improve fire prevention and life safety through research, testing and evaluation.*

These messaging materials are updated in some cases weekly and offer unique and high-quality tools for public education outreach. The lead consultant recommends that the department establish a Facebook® Page as well as other social media outlets where safety messaging can be distributed on a regular basis. In today's environment of limited available free time, public education experts are finding social media platforms work extremely well to keep residents and businesses informed and to share safety messages.

Fire Cause and Origin Investigations

Alaska Administrative Code 13AAC52.030 (b) (4): Requires all registered fire departments within the state to investigate all fires within their service area for origin and cause and report this information to the State Fire Marshal's Office. Skagway is a registered fire department.

Fire cause and origin is important for the purposes of preventing future fires, assisting with the processing of insurance claims and for moving forward with criminal investigations/charges related to the prosecution of arson fires. As part of an investigation, interviews must be conducted, evidence collected, and comprehensive reports of all findings prepared. If the fire is suspicious, the fire investigator needs to work together with the police department, providing the scientific investigation techniques of cause and origin, while law enforcement works to ensure proper procedural processes are followed for processing the crime through the justice system.

Skagway Fire Department currently does not have a certified fire investigator. Once staffing levels of paid personnel are stabilized and all paid members have completed their base level required certifications, a firefighter should be sent to receive training and become certified as a fire investigator. Until that time, the department should request assistance through the Alaska Division of Fire and Life Safety. The Division may be willing to assist due to Skagway's current staffing situation, but this likely will not continue for an extended period. The Division of Fire Safety primarily focuses their investigative resources on the following areas:

- Fires that result in a fatality or serious injuries
- Fires that involve a substantial loss of property ($500,000 or more)
- Fires which appear to be intentionally caused as part of an insurance fraud or other criminal activity
- Fires which will have a significant public impact

- Fires which indicate trends or a serious consumer safety problem
- Any fire that involves Department of Public Safety facilities or equipment

Potential Opportunity

Fire/Life Safety Inspections are important for ongoing compliance with safety standards. They are however after the fact. The best process of managing fire/life safety begins with the permitting process and extends through occupancy. The annual fire/safety inspections are then used to simply maintain compliance.

Right now, permitting, structural plan review, ongoing field inspections to ensure code compliance, and the issuance of an occupancy permits are all managed through the Permitting Officer. The fire department conducts reviews of plans related to fire safety. The Permitting Officer works out of Borough offices.

Through the fire department's reorganization driven by this audit, an opportunity exists for the Permitting Officer to be transferred to the fire department and added to the chain-of-command of the fire chief. Under this proposal the Permitting Officer would physically be relocated to the fire hall where he would be setup with all needed computers, software, and plan review tables to manage the construction and ongoing fire/life safety inspection process from cradle to grave. This move would in essence make the development process in Skagway a "one stop shop." Once a project was approved and the permitting process initiated, it would be coordinated fully through the fire department. This process would work to ensure compliance with structural, mechanical, and electrical plan reviews as well as all fire codes. Trade-offs in design and protective systems would be managed by the same department thereby easing the process for developers, business owners and residents. All inspections would be performed by fire department staff.

In addition to the process detailed about, the inspection process for food/health sanitation standards, and property maintenance inspections could all be rolled into the transition as well. Most annual fire/life safety inspections could be conducted by on-duty fire companies thereby giving the Permitting Official time to focus on plan reviews and the more technical inspections. A third-party vendor should continue to conduct annual inspections on all fire alarm, sprinkler systems, and wet/dry chemical fire systems.

Since the current Permitting Official has recently made application to join the fire department as a volunteer, this individual could be transferred, trained as an emergency responder, and then used as necessary to assist with emergency calls. By making this transfer, the borough would be getting the benefit of a single employee filling two critical roles (permitting official and emergency responder). Down the road, this individual may be an excellent candidate to be trained as a fire investigator, thereby bringing his knowledge of all disciples together (construction, fire behavior, and code) to create an extremely well-versed investigator.

Great organizational efficiently would result in initiating this change. However, the truly unspoken beneficial is the messaging sent to developers, businesses, and residents. By having the entire process managed by the fire department, it no longer appears that the process is about compliance and "hoop jumping" but rather about "public safety."

RECOMMENDATIONS

- *Transition all inspections to an electronic RMS system using iPads (or similar) and ESO software. Develop a file tracking process that allows for photos documentation and the ability to email the finalized inspection report to the owner/manager/responsible party.* ***Priority 3***
- *A formalized pre-fire planning procedure should be developed and implemented as part of the fire inspection process. This process should include drawings and photos. This information should be available to incident commanders operating in the field. The pre-fire plans should also be incorporated into the training curriculum with regular updates provided for all department personnel.* ***Priority 3***
- *Once staffing levels of paid personnel are stabilized and all paid members have completed their base level required certifications, a firefighter should be sent to receive training and become certified as a fire investigator.* ***Priority 3***
- *Transfer the Permitting Official to the fire department under the command of the Fire Chief. Merge all responsibilities currently assigned to this position together with those currently handled by the fire department. Train the Permitting Official as an emergency responder.* ***Priority 5***

Fiscal/Capital Analysis

The lead consultant met with the former fire chief to discuss budget, revenue, capital expenditures and apparatus replacement funding. Limited information was provided during this interview. The Chief was unable to provide a copy of the approved FY'21 budget. During the discussion, the lead consultant found it difficult to determine the exact budget needs of the department or to understand the budget justification related to long range planning/expenditures.

The Borough Manger provided the lead consultant with a copy of the FY'21 budget along with an explanation of how the budget is constructed. This was very helpful and has been used to provide the below analysis.

Due to the limited information provided by the former fire chief related to the financial condition of the fire department, this fiscal analysis is limited in scope and detail. Thanks is extended to the Interim Fire Chief who was able to help with clarification on several topics.

Table 33: FY'21 Budget Allocation (Expenses)

FY'21 Budget Allocation (Expenses) – Fire Department	
Operating Expenses	$1,004,190
Major Equipment – Fire	$12,000 - Radios $44,278 - FD Equipment
Dispatch	$276,918 (Half of the total budget of dispatch - $553,836
Total Dollars Allocated to Operate FD	**$1,337,386**

**Dispatch is housed, managed, and budgeted within the PD. There is no distribution detail of expenses for dispatch divided between fire and police. The consultants do not have enough information provided to do an analysis of workload distribution, so the actual budget numbers were simply divided equally between both agencies for the purposes of this report.

Table 34: FY'21 Budget Allocation (Revenue)

FY'21 Budget Allocation (Revenue) – Fire Department	
Ambulance	$12,500
Total Revenue Dollars Budgeted	**$12,500**

FY'21 Budget Detail

Skagway moved to a calendar year budget in 2020. Therefore, the lead consultant used comparative numbers for accounts based on the FY'19 budget.

Table 35: Comparative Budget FY'19 to FY'20

Comparative Budget FY'19 to FY'21				
Categories	**Funding Area**	**FY'19 (Actual)**	**FY'21 (Budget)**	**Difference**
Revenue				
	Ambulance	$27,322	$12,500	($14,822)
	Fed. Grant	$5,625	$0	($5,625)
Expenditures				
	Computer Support	$10,334	$11,574	$1,240
	Administrative	$33,511	$30,000	($3,511)
	Employee Payroll Expense	$106,963	$111,484	$4,521
	Health Insurance	$166,438	$180,332	$13,894
	Equipment	$13,876	$13,176	($700)
	Repairs and Maintenance	$46,215	$30,000	($16,215)
	Salaries	$397,497	$467,124	$69,627
	Travel and Training	$49,911	$12,500	($37,411)
	Utilities	$94,197	$100,000	$5,803
	Janitorial	$30,450	$31,000	$550
	Communications	$10,563	$5,000	($5,563)
	Ambulance Expense	$4,840	$1,000	($3,840)
	SAR	$2,872	$1,000	($1,872)
	EMS Equipment	$8,892	$5,000	($3,892)
	OSHA	$1,095	$5,000	$3,905
	Lease Expense	$0	$0	$0
Major Equipment				
	Radios	$9,833	$12,000	$2,167
	FD Equipment	$0	$44,278	$44,278
	FD Equipment – Defibrillators	$0	$0	$0
	FD Equipment – SCBA	$0	$0	$0
Totals		**$1,020,434**	**$1,072,968**	**$52,534**

From provided documentation, it appears that the following dollars were planned for expenditure in the FY'20.5 budget related to Major Equipment. It is unclear to the lead consultant whether these dollars were expended (or the actual cost if they were):

- $12,000 – Fire Department Radios
- $16,846 – Fire Department Equipment
- $68,000 – Defibrillators
- $92,646 – SCBA

Fiscal Analysis

Line-Item Justification

The lead consultant was provided with a FY'21 Operations Budget Request Spreadsheet that provides nice detail on what is included in each line-item request. Since the approved FY'21 budget is different than the request, the lead consultant was not provided detail on what is actually include and what was cut. Therefore, it is impossible to determine what is "not going to be done" based on the reduction in available funds. To do a full operational analysis for purposes of this audit, this information would be needed.

Statement of Revenue and Expenditure Report (P & L Statement)

The lead consultant requested a current statement related to expenditures (percentage spent) for FY'21. The Interim Fire Chief provided a report from the beginning of the fiscal year through July 31, 2021. Based on the date of this information provided, the department is **58.31%** through the fiscal year.

Theoretically, the department should be able to gauge expenditure based on the number of months through in the fiscal year. One month should equal 8.33%. Therefore, if the department is 7-months through the fiscal year, the account expenditure goal should be 58.31% spent. This is not always an accurate analysis based on one-time expenditure, but if these one-time expenditures are recognized and accounted for, the percentage spent analysis tool works very well.

Looking at each individual line-item for FY'21, a number of the accounts are spent less than projected (highlighted in yellow). Those highlighted in orange are tracking higher than expected.

Some of these variations can be attributed to one-time purchases. The only one in this "high percentage spent" category that the lead consultant would be concerned about is the Repairs and Maintenance line-item. An analysis of the detail of what has been charged to this account would be needed to fully understand this percentage overage.

Table 36: Line-Item Expenditure Report: July 31, 2021

Line-Item Expenditure Report: July 31, 2021				
Line-Item	Budget	Expended	Remaining	% Spent
Computer Support	$11,574	$5,037	$6,537	43.52%
Administrative	$30,000	$3,460	$26,540	11.53%
Employee Payroll Expense	$111,484	$60,074	$51,410	53.89%
Health Insurance	$180,332	$103,383	$76,949	57.33%
Equipment	$13,176	$431	$12,745	3.27%
Repairs and Maintenance	$30,000	$21,122	$8,878	70.41%
Salaries	$467,124	$196,886	$270,238	42.15%
Travel and Training	$12,500	$1,622	$10,878	12.98%
Utilities	$100,000	$53,973	$46,027	53.97%
Janitorial	$31,000	$17,325	$13,675	55.89%
Communications	$5,000	$5,065	($65)	101.30%
Ambulance Expense	$1,000	$83	$917	8.34%
SAR	$1,000	$1,174	($174)	117.42%
EMS Equipment	$5,000	$5,149	($149)	102.97%
OSHA	$5,000	$4,489	$511	89.78%
Lease Expense	$0	$0	$0	

For the accounts currently underspent, the interim fire chief needs to do an analysis of needs and determine what expenditures will be used/needed in FY'21 and get those started ASAP. The fear of making equipment purchases this late in the budget year is that they will not arrive after January 1, 2022, which by the Government Accounting Standards Board (GASB)® will need to then be charged to the FY'22 budget.

Major Equipment Analysis – Current Budget

Included in the FY'21 budget are two major equipment items:

- $12,000 Radios

  After speaking with both the Interim Fire Chief and the Police Chief, a communication problem exists related to radio signal coverage. Options may exist related to use of a State of Alaska radio network that could possibly correct the problems. To fully understand and address these issues, it is likely that a communication study will be required. The study should incorporate both the needs of the police department and the fire department including interoperability. Due to this situation, the fire department should hold off on any radio purchases until after the study is complete.

- $44,278 Fire Department Equipment
    - $37,878 – Five (5) Scott 3M™ Scott™ Air-Pak™ X3 Pro SCBA meeting the NFPA 1981 standard.
    - $6,400 – Computer replacement
        - 2 – Desktop
        - 1 – Laptop
        - 1 - Server

Capital Improvement Planning

As stated in the Governance/Department Overview the consultants recommend that the department undergo a strategic planning process. As part of this process, the department should work to create a capital improvement plan that clearly defines future expenditures for equipment and facility improvements. The capital plan should be based on both the operational needs of the department along with items identified in the strategic plan. Once developed, the capital improvement plan should be reviewed and updated annually.

Capital items are those purchases that are expected to last more than a single budget year and generally have a set minimum value. To establish a capital improvement plan, the Assembly needs to identify the minimum dollar threshold for a capital purchase.

The below spreadsheet is an **example** of a typical capital improvement plan. Note that the total planned expenditures average out to be around $49,612 annually. By maintaining a consistent capital improvement plan, it makes overall revenue management more efficient with less impact on one-time revenue needs.

Table 37: Example - Capital Equipment Program

Capital Equipment Replacement Program													
Description	Unit Number	Unit Cost	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	Annual Multiplier
Structual Firefighter Turnout Gear	4	$2,500	$10,000	$10,500	$11,025	$11,576	$12,155	$12,763	$13,401	$14,071	$14,775	$15,513	5.00%
Tech Rescue/Wildland Turnout Gear	3	$1,500	$4,500	$4,725	$4,961	$5,209	$5,470	$5,743	$6,030	$6,332	$6,649	$6,981	5.00%
Portable Radios	2	$6,000	$12,000	$12,300	$12,608	$12,923	$13,246			$14,264	$14,621	$14,986	2.50%
Thermal Imaging Cameras	4	$9,372	$9,372	$9,841	$10,333	$10,849							5.00%
Biphasic Cardiac Monitor/Defibrillator/Pace Maker	2	$45,000						$58,500	$61,425				5.00%
Autopulse CPR Units	2	$16,700		$17,535	$18,412								5.00%
Training Site Enhancements				$10,000	$10,000	$10,000							
Fire Hall - Training Room Audio/Visual Broadcast Equipment			$30,000										
			$53,872	$52,601	$54,731	$37,634.82	$30,871	$77,006	$80,856	$35,024	$36,044	$37,481	
										Average Annual Capital Costs			$49,612

Revenue Generation

The fire department bills for ambulance service. Resolution No. 2000-06R is the most recent Assembly action related to this issue. Ambulance rates are established as follows. Resolution No. 2000-06R is included as **Appendix C**:

Table 38: Skagway Ambulance Fees

Ambulance Fees Resolution No. 2000-06R City of Skagway, AK	
Billing Categories	**Rates**
Basic Life Support (BLS)	$350
Advanced Life Support (ALS)	$500
Mileage **Mileage fees are assessed based on specific geographical markers. Transports past those point are charged mileage. Those closer to town are not assessed mileage fees.	$5 per loaded mile
Medivac Escort	$75 per attending EMT

Ambulance billing and collections is a complicated process. Ambulance billing normally falls into four distinct categories:

- Medicare Billing
- Medicaid Billing
- Private Insurance
- Self-pay

How ambulance bills are applied is a local issue based on how a community feels about the services rendered. Some communities take the position that ambulance service fees are covered by the taxes paid by residents and so choose to provide a free service or bill at a nominal rate. Others see ambulance billing as a source of revenue and work hard to maximize fees based on allowable insurance rates.

Ambulance services typically establish their billing rates based on what private insurance allows. The Centers for Medicare & Medicaid Services (CMS) establish "usual and customary" rates for what they will pay which is based on regions of the U.S. Some ambulance services will accept the Medicare rates, which is almost always less than the private rate, and then balance bill a patient's private insurance company for the remainder. Other services simply accept the Medicare and Medicaid rates. Some will also balance bill those who are self-paying, while others do not.

In Skagway's case, regardless of policies on billing, the current rate structure is over 21-years old and is far behind related to allowable fees. Although not a specific study of the rates applicable to the Skagway region, rates in the lower-48 are generally much higher than Skagway's current rate structure. The below chart provides an example of common rates:

Table 39: Example - Customary Ambulance Fees 2021

Example of Ambulance Fees - 2021	
Billing Category	**Rates**
Basic Life Support – Non-Emergent	$1,100
Advanced Life Support – Non-Emergent	$1,300
Basic Life Support – Emergent	$1,100
Advanced Life Support – Emergent	$1,300
Advanced Life Support II – Emergency	$1,600
Basic Life Support – No Transport	$525
Advanced Life Support – No Transport	$700
Critical Care Transport	$2,000
Mileage	$15.00
Wait Time	$25.00

Additionally, several states have created statutes governing ambulance rates requiring reimbursement based on the actual expense of providing the service. A study of ambulance billing regulations in Alaska is needed to determine if and how this relatively new standard would impact Skagway.

Ambulance Subscription

In addition to ambulance billing, Skagway offers a subscription service to residents of the community. This rate schedule is as follows:

- $10 per person per fiscal year
- $20 per couple per fiscal year
- $25 per family per fiscal year (A family is defined as immediate family living in one household.)

When comparing this subscription rate against the example provided above, this fee is very low. This rate structure has not been modified since the 2000 resolution.

Skagway Visitors & Ambulance Billing

Due to Skagway's huge influx of visitors and the workload placed on emergency services, it makes sense to bill non-Skagway residents for the services provided. Most tourists coming to Skagway likely have some form of health insurance. Offering ambulance services at the rates established by the 2000 resolution is leaving a significant amount of potential revenue uncollected.

Review of Laws and Billing Standards

An ambulance billing and rate study is beyond the scope of this audit. The consultants recommend that Skagway conduct an ambulance billing study that provides an analysis of current laws, allowable billing standards and rates, and an overall discussion of options for consideration by the Assembly.

RECOMMENDATIONS

- *A communication study should be initiated to evaluate the signal coverage issues impacting both police and fire departments. Purchases of new/additional radio equipment should be postponed until after this study is complete.* ***Priority 2***
- *Implement a 10-year capital improvement planning process. As an option, this could be completed as part of the recommended strategic planning process.* ***Priority 3***
- *Conduct an ambulance billing and rate study providing an analysis of current laws, allowable billing standards and rates, and an overall discussion of options for consideration by the Assembly.* ***Priority 4***

Recommendation Summary

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
1	1	Immediate Needs	*Investigate and if feasible, enter into a contractual agreement for full-time firefighter/medics from a private/non-governmental agency. This agreement should be temporary with a focus on providing sufficient responders to handle emergency calls. The contract should also include an individual with a significant fire service training background that can serve as the department's training officer.*
2	1	Immediate Needs	*Initiate an aggressive volunteer recruitment campaign and begin onboarding new members. The contractual training officer should have as part of his/her primary duties the responsibly for training and developing the volunteer staff.*
3	1	Immediate Needs	*Begin a recruitment/search process for replacement of full-time personnel. All new full-time personnel should be dual role/cross trained firefighter/medics.*
4	1	Immediate Needs	*Hire and appoint an interim fire chief while simultaneously conducting a search and developing a long-term plan for filling this department head position.*
5	4	Governance/Department Overview	*Conduct an organizational analysis and draft language related to guiding organizational principles (mission, vision, values) specific to Skagway. This process may be best accomplished as part of an overall strategic planning process.*
6	3	Governance/Department Overview	*Undergo a strategic planning process with the goal of establishing a 3-year plan. Consider using an outside facilitator to lead the process and to assist department leadership in writing the finalized plan.*
7	1	Governance/Department Overview	*Immediately stop the practice of "field promotions."*
8	3	Governance/Department Overview	*Develop and implement a promotional selection process for both paid and volunteer officers.*
9	4	Governance/Department Overview	*Move to an assessment center promotional process in the future.*
10	3	Governance/Department Overview	*Begin an officer development/educational program for both paid and volunteer officers.*
11	1	Governance/Department Overview	*Immediately implement a policy in which all calls for service (emergency and non-emergency) are paged for notification to all department members.*
12	2	Governance/Department Overview	*A system(s) of external communication messaging needs to be developed and implemented ASAP. These systems will play an important role in recruitment of new department members by sharing the need for new members and how residents can get involved with the fire department.*
13	5	Department Operations	*Annually budget training dollars for the department's reporting software administrator to attend the ESO – WAVE Conference.*
14	5	Department Operations	*Annually budget dollars to maintain the Firehouse Software® archives.*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
15	4	Department Operations	*Develop and initiate a well-structured fire safety inspection program managed where bi-annual alarm and sprinkler system inspections were reviewed to ensure compliance with design and maintenance standards.*
16	3	Department Operations	*Continue the program of hiring seasonal emergency responders to assist with the increased call volume during the months of May – September.*
17	5	Department Operations	*It is not recommended that a second fire hall be constructed in the Dyea area.*
18	1	Department Operations	*Institute a policy in which personnel working an 8-hour day take their lunch breaks either in the fire hall or as a group if they choose to leave the fire hall, so they are able to timely respond to emergency calls.*
19	3	Department Operations	*Develop a Fire Department Administrative Policies Manual that builds on the information provided in the Employee Handbook and covers areas specific to the fire department and the paramilitary culture of the organization. Move all "non-operational" policies now contained in the various SOG manuals to this newly created manual. Have all employees complete a sign-off acknowledgement receipt of the updates/changes.*
20	3	Department Operations	*Conduct a comprehensive analysis of needed department SOGs. Develop Skagway specific SOGs based on this analysis and then conduct training with all staff related to the policies. Have all employees complete a sign-off acknowledgement receipt of the updates/changes.*
21	3	Department Operations	*Conduct a comprehensive analysis of all skills required to operate proficiently as an employee of Skagway Fire Department. JPRs along with skill testing sheets should be developed for each of these skills. Additional JPRs should be developed for all "specialty skills" and used for those having training and or responsibilities in each of these disciplines. (e.g., EMS, Search and Rescue, Technical Rescue, Hazardous Materials, etc.)*
22	1	National Standards	*Develop a plan to purchase/upgrade all SCBA so that they are compliant with the same edition of NFPA 1981 thereby operating with the same options and safety standards.*
23	3	National Standards	*Develop and implement goals and objectives through a strategic planning process to utilize NFPA 1720 as a performance benchmark standard.*
24	2	National Standards	*The Department should make every effort to comply with the medical standards as established per NPFA 1582 including testing requirements based on age and frequency of exams.*
25	2	National Standards	*The department should work to build a process where rehab is available to all operating personnel at incidents where a physiologic and/or emotionally challenging event is unfolding/unfolded. Rehab standards should comply with NFPA 1584 and be addressed per policy within the department's standard operating guidelines.*
26	1	National Standards	*Establish within the Standard Operating Guidelines policies for use and maintenance of SCBA.*
27	1	National Standards	*Establish a "grooming policy" within the departments administrative policies requiring personnel to be clean shaven when responding to calls*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
			with no facial hair that comes between the sealing surface of the facepiece and the face.
28	2	National Standards	*It is recommended that the department establish an annual training plan that incorporates required OSHA topics.*
29	5	National Standards	*An ISO™ classification of Class 04/4X is a very good rating. The department should work to stabilize the current department operations to maintain this rating during the next review. At this point the consultants do not recommend committing resources focused solely on reducing the overall rating.*
30	5	National Standards	*Utilize the performance indicators and benchmarks from the CPSE accreditation process as a guide when developing policies and procedures for the Department.*
31	5	National Standards	*Utilize the performance indicators and benchmarks from the CAAS accreditation process as a guide in developing policies and procedures for the EMS aspects of the department.*
32	4	Communications/ PSAP/Dispatch	*A fully functional second dispatch console should be added ASAP.*
33	3	Communications/ PSAP/Dispatch	*The formalized backup PSAP plan needs to be developed and instituted via an interlocal agreement. An ongoing training plan with the selected backup PSAP needs to be established.*
34	4	Communications/ PSAP/Dispatch	*Continue providing Emergency Medical Dispatching using guide cards. Incorporate into the fire service dispatch protocol the use of guide cards for fire response.*
35	3	Communications/ PSAP/Dispatch	*Establish a policy for call processing. A policy goal should be ≤60 Seconds 90% of the time. Monthly quality assurance/quality improvement reviews need to be conducted to determine compliance.*
36	1	Communications/ PSAP/Dispatch	*Implement a policy where all CAD tickets generated have a corresponding NFIRS report written including a narrative of actions taken.*
37	1	Communications/ PSAP/Dispatch	*Implement a policy where all responding personnel are tracked within the NFIRS report.*
38	1	Communications/ PSAP/Dispatch	*Implement a policy where telecommunicators page the fire department utilizing generic response information to maintain a ≤60 second call processing standard. Provide EMD services post paging. Statistically monitored monthly and make corrections as necessary.*
39	1	Communications/ PSAP/Dispatch	*Implement a policy requiring a ≤80 second turnout time for in-house fire department personnel. Statistically monitored monthly and make corrections as necessary.*
40	5	Communications/ PSAP/Dispatch	*Continue the current quality assurance/quality improvement process for 9-1-1 call handling.*
41	1	Communications/ PSAP/Dispatch	*Implement a policy in which all calls for service are paged thereby notifying both volunteer and off-duty personnel of a fire department response.*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
42	1	Staffing	*The department should be restructure for full-time career personnel as follows: Fire Chief, Training Officer – Captain, Firefighter/Medic (three personnel at this rank).*
43	2	Staffing	*The Permitting Officer should be transferred to the fire department and placed under the command of the fire chief.*
44	2	Staffing	*The volunteer program should be eliminated, and all members converted to paid-on-call (POC) status.*
45	2	Staffing	*A part-time staffing program needs to be developed specifically to serve as replacements for full-time career staff who are off using accrued leave, sick time, or training leave.*
46	4	Staffing	*The department's "support personnel" should be transitioned over the Fire Corps program administer by the National Volunteer Fire Council (NVFC).*
47	2	Staffing	*The department should make a concerted effort to always operate at the EMT-3 level. Additionally, a goal should be established to upgrade in the next 3-years to the Mobile Intensive Care Paramedic level.*
48	4	Staffing	*Once the upgrade to paramedic providers is complete, the department would do well to evaluate a move to the critical care paramedic level for use during transfers as well as investigate the need for a community paramedic program.*
49	1	Human Resources	*Ensure that volunteers are paid a stipend and that part and full-time employees are an hourly rate.*
50	1	Human Resources	*Firefighter employees working full-time on a 24/48 shift should have a written policy confirming a 28-day work period in accordance with 7(k) for overtime calculations for fire suppression positions.*
51	2	Human Resources	*All volunteers should be considered employees of the Borough and subject to all Borough/Department policies and procedures. The Personnel Handbook should include references to volunteer (Paid on Call), part and full-time employees.*
52	2	Human Resources	*Consider changing the payment of time off to hours paid versus than hours worked; use of Kelly days or use of the sleep time exemption to minimize the amount of overtime when the 24/48 shift schedule is started.*
53	2	Human Resources	*Develop one employment application to be completed and submitted to the Borough electronically.*
54	1	Human Resources	*Do not require a copy or attain information of the Driver's License, Social Security Number, and Date of Birth on the employment application.*
55	2	Human Resources	*Establish single point of entry to accept all applications for the Borough.*
56	4	Human Resources	*The Borough and Department website should be updated to reflect why the Borough is an employer of choice for recruitment purposes.*
57	2	Human Resources	*Develop standardized recruitment procedures which includes screening applications based on objective criteria and a competitive interview process.*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
58	2	Human Resources	*Develop a standardized rating system to rank candidates during interviews.*
59	1	Human Resources	*All personnel who participate in interviews should be trained in interview techniques/legal questioning.*
60	2	Human Resources	*Maintain all application screening processes and documentation.*
61	3	Human Resources	*All applicant communications should be developed as a template for consistent communication.*
62	2	Human Resources	*All applicant communications should be retained.*
63	2	Human Resources	*Develop a template offer letter and include an authorization form to initiate the background process and authorization to perform a background check.*
64	3	Human Resources	*Investigate and implement a simple testing process to determine reading comprehension and basic math skills.*
65	2	Human Resources	*A post-offer pre-employment physical should be conducted by a medical provider selected by the Borough knowledgeable in NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments and OSHA 1910.134: Standard on Respiratory Protection.*
66	2	Human Resources	*Ensure all post-offer processes (background and medical exams) are coordinated via the Borough Administration.*
67	3	Human Resources	*Ensure all recruitment records are retained with Borough Administration for proper retention/destruction.*
68	2	Human Resources	*Establish the standards of expected performance for an employee to learn and understand the roles and responsibilities of the position during the orientation period. The supervisor should document, monitor, and support performance measures.*
69	5	Human Resources	*Develop a new employee orientation checklist for the Department to ensure all paperwork, policies, benefits, Borough and Department information is consistently provided and documented along with employee's acknowledgement.*
70	2	Human Resources	*Develop job descriptions to incorporate the job functions, minimum qualifications, and other relevant areas to describe each position.*
71	4	Human Resources	*The Fire Chief should develop a basic performance evaluation instrument for all members. The instrument should outline basic performance expectations of every member and establish professional and/or organizational goals for the upcoming year.*
72	5	Human Resources	*Performance evaluations should be provided formally and include discussion of the needs of the member in order to ensure the organization is meeting them; thus, the member understands that not only is he or she beneficial to the organization but that the Department is concerned about his or her individual needs.*
73	4	Human Resources	*Develop an ongoing performance evaluation process for new members.*
74	4	Human Resources	*All evaluating officers should be trained in performance management and how to conduct performance evaluations.*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
75	3	Human Resources	*Update the Borough's Policy and Procedure Manual to include POC members.*
76	3	Human Resources	*Update the Borough's Personnel manual to include recommended policies.*
77	3	Human Resources	*Provide all SOGs and the Borough Policy and Procedure Manual to employees and require a written acknowledgement.*
78	2	Human Resources	*Ensure all active and inactive personnel files are maintained with the Borough's personnel files. The Department should only maintain training records and current performance documentation on active employees.*
79	4	Facility	*All fleet maintenance tools, lifts and equipment should be transferred to fleet services at the Public Works Department.*
80	3	Facility	*All department responders should be issued wildland PPE. A PPE policy should be developed to allow use of wildland PPE for incidents where the thermal protection of structural PPE is not required.*
81	1	Facility	*Conduct an analysis of the manufacturer dates of all structural PPE and dispose of ensemble pieces that are no longer compliant with NFPA 1851.*
82	1	Facility	*Conduct an analysis of the manufacturer dates/expiration dates on search and rescue equipment to ensure that all stored ropes and harnesses are still compliant.*
83	3	Facility	*Implement a monthly inventory and "equipment checks" procedure for all search and rescue equipment maintained in the storage room to ensure that the tools are mission ready. This inventory and associated check sheets should be maintained within the department's computer records management system.*
84	5	Facility	*Due to the potential for creating a strained officer work environment due to the separation of volunteer officers from paid officers, thorough considerations should be given to the best utilization of the office workspace on the second floor.*
85	4	Facility	*On duty staff should be encouraged, if not mandated, to complete a workout period during their shift. Administrative (8-hour personnel) along with volunteer members should be encouraged to complete physical fitness training 2-3 times per week. All physical fitness workouts should be tracked using the department's computer records management system.*
86	1	Apparatus/Vehicles/ Equipment	*Two (2) SCBA units should be added to each of the ambulances including a selection of basic fire service "truck company hand tools" (Halligan Bar, Flat Head Axe, 6' hook, search rope, hand lights, a thermal imager, etc.).*
87	1	Apparatus/Vehicles/ Equipment	*Remove from service and dispose of Ambulance 22. Do not replace.*
88	4	Apparatus/Vehicles/ Equipment	*Move to a standardized pump GPM size for all engines/pumpers and pumpers/tenders. This should likely be 2000 GPM.*
89	5	Apparatus/Vehicles/ Equipment	*When Rescue 26 is replaced, evaluate moving to a Type III wildland fire engines that can both accommodate the search and rescue tools while providing enhanced wildland suppression capabilities including an*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
			increased safety factor due to the increased weight carrying capability of the larger chassis.
90	2	Apparatus/Vehicles/ Equipment	*The fire chief should continue to operate and respond with a take-home vehicle, but it should be upgraded to include a rear command module.*
91	4	Apparatus/Vehicles/ Equipment	*When command vehicles are replaced, the department should move to pickup trucks equipped with bed toppers. These units should also be equipped with command modules.*
92	2	Apparatus/Vehicles/ Equipment	*Transfer all apparatus and small tool maintenance to the Fleet Services Division of Public Works. To accommodate the additional workload, it is recommended that an additional mechanic be hired and that all personnel assigned to work on fire apparatus receive training and become certified as Emergency Vehicle Technicians (EVTs) as appropriate.*
93	2	Apparatus/Vehicles/ Equipment	*The department should adopt an apparatus replacement schedule and begin the creation of a sinking fund that will allow funds to be escrowed for future apparatus replacement needs. SCBA should be included as part of this sinking fund based on a 15-year replacement.*
94	2	Apparatus/Vehicles/ Equipment	*Take action to replace apparatus listed as "RED" in the Recommendation/Replacement Schedule.*
95	3	Apparatus/Vehicles/ Equipment	*The department should plan for the purchase of a 100' tower ladder quint equipped with a pre-piped waterway and monitor capable of flowing a minimum of 1,000 GPM, pre-piped 2.5" standpipe connections, stokes basket rescue attachments, and basket mounted lifting/high angle rings.*
96	3	Apparatus/Vehicles/ Equipment	*Based on the quickly advancing changes in cruise ship propulsion, the department needs to begin investigating options for the acquisition of a fire boat designed to address the impact of LNG as a fuel source.*
97	5	Training/Certifications	*Non-training hours such as business meetings and work sessions need to be excluded from the training reports since they will not be counted by ISO.*
98	4	Training/Certifications	*Establish an educational reimbursement contract for employees (paid and volunteer) who attend and receive professional certifications.*
99	2	Training/Certifications	*The fire chief, acting as the AHJ, should implement a tiered training standard for all department employees based on areas of operation and skill set.*
100	1	Training/Certifications	*All paid personnel should as a condition of employment be trained to a minimum of Firefighter 1 and Emergency Medical Technician – 3.*
101	4	Training/Certifications	*The Fire Chief, acting as the AHJ, should establish a yearly training plan delineating the minimum number of training hours, including specific required topics for personnel to remain as an active member of the department.*
102	5	Training/Certifications	*Using NFPA 1401 as a guide, establish a system for the maintenance of training records including JPR skill evaluations. This system needs to track training for all department employees (paid and volunteer).*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
103	4	Training/Certifications	*The Fire Chief, acting as the AHJ, should establish a yearly training plan for officers that includes strategy, tactics, and soft skills that focus on the human capital side of management and leadership.*
104	2	Training/Certifications	*The department should continue utilizing the Lexipol Training Solutions platform for online training where possible.*
105	4	Training/Certifications	*Steps should be taken to broadcast and stored training sessions so members can access and complete the training when they are not able to attend in-person.*
106	5	Training/Certifications	*The training site should be expanded to increase live burn/smoke training capabilities.*
107	5	Training/Certifications	*Training props should be expanded with a focus on the specific hazards found in Skagway.*
108	3	Training/Certifications	*Live fire/smoke training should be scheduled at least quarterly. Set as a goal that all fire suppression members attend a minimum of 12-hours of live burn training annually.*
109	4	Mutual Aid	*Department leadership needs to begin building relationships with possible mutual aid partners.*
110	4	Mutual Aid	*Establish a signed memorandum of understanding with each department interested and able to assist Skagway.*
111	4	Mutual Aid	*Set as a goal to host and/or send personnel to at least one mutual aid training annually. Training should focus on the departments in Haines, Juneau, and Whitehorse.*
112	4	Mutual Aid	*A memorandum of understanding needs to be signed with TEMSCO for assistance during rescue operations.*
113	3	Inspections/Public Education	*Transition all inspections to an electronic RMS system using iPads (or similar) and ESO software. Develop a file tracking process that allows for photos documentation and the ability to email the finalized inspection report to the owner/manager/responsible party.*
114	3	Inspections/Public Education	*A formalized pre-fire planning procedure should be developed and implemented as part of the fire inspection process. This process should include drawings and photos. This information should be available to incident commanders operating in the field. The pre-fire plans should also be incorporated into the training curriculum with regular updates provided for all department personnel.*
115	3	Inspections/Public Education	*Once staffing levels of paid personnel are stabilized and all paid members have completed their base level required certifications, a firefighter should be sent to receive training and become certified as a fire investigator.*
116	5	Inspections/Public Education	*Transfer the Permitting Official to the fire department under the command of the Fire Chief. Merge all responsibilities currently assigned to this*

	Skagway - Recommendation Priority		
Number	**Priority**	**Topic**	**Recommendation**
			position together with those currently handled by the fire department. Train the Permitting Official as an emergency responder.
117	2	Fiscal/Capital Analysis	*A communication study should be initiated to evaluate the signal coverage issues impacting both police and fire departments. Purchases of new/additional radio equipment should be postponed until after this study is complete.*
118	3	Fiscal/Capital Analysis	*Implement a 10-year capital improvement planning process. As an option, this could be completed as part of the recommended strategic planning process.*
119	4	Fiscal/Capital Analysis	*Conduct an ambulance billing and rate study providing an analysis of current laws, allowable billing standards and rates, and an overall discussion of options for consideration by the Assembly.*

Appendix A – Data Request

Data Requested – McGrath Consulting Group, Inc. – *Fire/EMS Component*

Directions:

- The data you submit at this time will be utilized in determining recommendations; therefore, **please ensure the data is correct**. New data after the draft report is presented will not be utilized.

- Whenever possible please put the data in an electronic format

- Depending on your data management system it could take up to two weeks to gather the information requested – if you need additional time please contact me. If the documents exceed your email size, I will send you a DropBox link to submit your data. Please also put the data on a flash drive and present it to the consultant upon the first site visit.

- Show each year data separately i.e. 2018, 2019 and 2020 – do not group the years together.

- Before you feel you need to conduct a hand count please call me (815) 728-9111

General Information

- Overview of the department
- History
- Overview of the area protected
  - District
  - City/Village/Town/Township
- Population – Residents of Protection Area
- In-flux or Out-flux of Daytime Population
- Department's Strategic Plan

Response District

- Map of Coverage Area
- Map of the District
- Map of Area of Concern for Relocation of Station
- Map of Contiguous Surrounding Area Showing Department Stations Locations
- Total Square Miles Protected
- Square Miles of Hydrant Area
- Square Miles of Non-Hydrant Area

Governance

- Municipal, Town, City, Village, District, Township, etc.
    - Structure (Board, Council, Trustees, Commissioners, etc.)
        - Number of elected officials
        - Hierarch (organizational chart)
        - Member's terms (years, staggered, term limits)
        - How is the president/chairperson determined
        - Authority flow
    - Fire/EMS Leadership
        - Organizational Chart
        - Selection process of officers
        - Job requirements:
            - Administrative
            - Supervisory
            - Operational
        - Length of terms of officers
        - Requirements/certifications needed for each officer position
        - Fiscal responsibilities

Personnel Management/Human Resources

- Current Roster of Members (sworn and non-sworn)
- Personnel (Information needed for all employees)
    - Hire Date
    - Age or Date of Birth
- Organizational Chart
    - # of Career
    - # of Paid On Call
    - # of Part-time (Paid On Premise)
    - # of Volunteers
    - # of Other Employees (Include civilian)
    - Rank Structure (Number of employees in each category)
    - Minimum/Maximum Staffing
        - Minimum staffing =
        - Maximum staffing =
        - Number of days at maximum daily staffing (show for each study period year)
        - Number of days at minimum daily staffing (show for each study period year)
    - Current salary of each employee (name, rank, salary)
    - Spreadsheet with the benefit breakout – health, pension, taxes, etc. (provide for each year being studied)
- Labor agreements

- Department's By-Laws (if corporation)
- FLSA pay cycle (if not in contract)
- Police & Fire Commission or Civil Service Regulations
- Employee Policy & Procedure manual (electronic version)
- Promotional Process – Include forms utilized
- History of Turnover (All employees last 3-years – include reason and/or exit interview data)
- Recruiting/Retention Programs
- Hiring Process (all forms)
  - Application
  - Hiring Packet
  - Reference questions
  - Interview questions
  - Etc.
- Grievances/Discipline issues
- Performance evaluation process and forms
- Last year's overtime by employee – include rank
- SOG/SOP Manual – prefer electronic copy – (sure to include HR policy section)
- Department Employee's Handbook
- New employee orientation process – packet an/or forms

The Department

- Annual Reports – Last 3 Years
- Current ISO Rating
  - Provide complete ISO document
  - Last IOS on-site evaluation (copy of point distribution sheet)
- Department SOGs
- Department Rules and Regulations
- Accreditations
- Others

Emergency Activities

- Total calls last ten years (no breakdown just total calls per year)
- Last 3 Years (All Sub-Sections)

NFIRS Series	Nature of Call	Calls 2018	Calls 2019	Calls 2020
100	Fires			
200	Overpressure/Explosion			
300	Rescue/EMS			
400	Hazardous Conditions			
500	Service Calls			

NFIRS Series	Nature of Call	Calls 2018	Calls 2019	Calls 2020
600	Good Intent Calls			
700	False Alarm/False Calls			
800	Severe Weather			
900	Special Incidents			
	Total Calls			

- Number of emergency responses
- **NFIRS:** Type of Responses: *For each of the 3 years*
  - EMS Responses:
    - 1st Responder
    - Advanced Life Support
    - Basic Life Support
    - Non-emergency Transports/Transfers, etc.
  - Incidents by Time of Day
  - Incidents by Day of the Week
  - Incidents by Month
  - Calls Breakdown by Area (City, District, Town, Etc.)
  - Distribution by Station
  - Response Times: (include documentation from dispatch)
  - Notification time
  - Turnout time
  - Drive time
  - Mutual Aid – Auto Responses (Given & Received) – With Whom? – Copy(ies) of Written Agreement
  - Simultaneous (Overlapping) Call Data

Dispatch (PSAP)

- Who provides dispatch?
- Location (address of dispatch center)
- Cost
- Dispatch data – time from receiving call to FD notification
- A data printout showing CAD verification times – from call received until agency is dispatched. CAD showing minutes and seconds.
- Who answers 9-1-1 calls?
- Who answers cellular 9-1-1 calls?
- Number of employees
- Number of shifts
- Staffing per shift (minimum & maximum)
- EMD Program

- Dispatcher/Call Taker Certifications

Fire Station(s) – include mailing address for each station – include City & Zip

- Current Facilities
- # Of Stations – Street Address
- Square Footage – (Floor Plans for each if available)
- Age
- Future Facility Plans/Needs Documents

Apparatus & Equipment

- Type of Apparatus (I.E. Engine, Ambulance, Utility, Truck – Include Manufacturer)
- Apparatus department ID number
- Pump & Tank sizes
- Mileage
- Engine Hour Reading (if appropriate)
- Age of Apparatus
- Manufacturer
- Replacement Schedule
- Apparatus maintenance records
    - Internal
    - External
- Special Teams Apparatus
- Specialized Equipment: Haz Mat, Water Rescue, Etc.
- Radio type and frequencies
- Computers (number, type, age, replacement plan)
    - In apparatus?
    - Software programs

Training

- Training Records (Last 3 years) <u>for each member</u>
- Training schedule
- Training hours per month per employee
- Training Curriculum & Lesson Plan
- Instructors qualifications
- Training Manual
- Certifications Categories (state)
- Special Teams – certifications
- All current employees' certification level

Fire Prevention

- Review of current general fire prevention and fire inspection programs
    - Number of inspectable buildings
    - Type of inspections/number each category last 3-years
    - History of inspections – violations corrected
    - Number and type of re-inspections
    - Code adoption and enforcement activities
        - Fire Code
        - Building Codes
    - Trends in permits
    - New construction and involvement in last 3-years
    - Department's sharing of information and resources
    - Review pre-incident planning program / number of pre-plans completed
- List of fire investigations – last 3-years

Safety Education

- Public Safety Education Programs
- Public Safety Education Data (Last 3-years)

Fiscal

- Past three years of audited year financial statement
- Current year audited financials
- Past three years' budget
- Operating – include all revenue and expenses
- Capital - include all revenue and expenses
- Financial policies and procedures
- Purchasing policies
- Equipment or Capital reserve fund ledger
- Overtime records
- Ambulance information –
    - Ambulance revenue current year and two previous years
    - Ambulance billing contract
    - Copy of ambulance rates charged and authority for those rates i.e. ordinance
- Identification of all accounts for the department
- Account details for each of the above accounts – last three years

Revenue

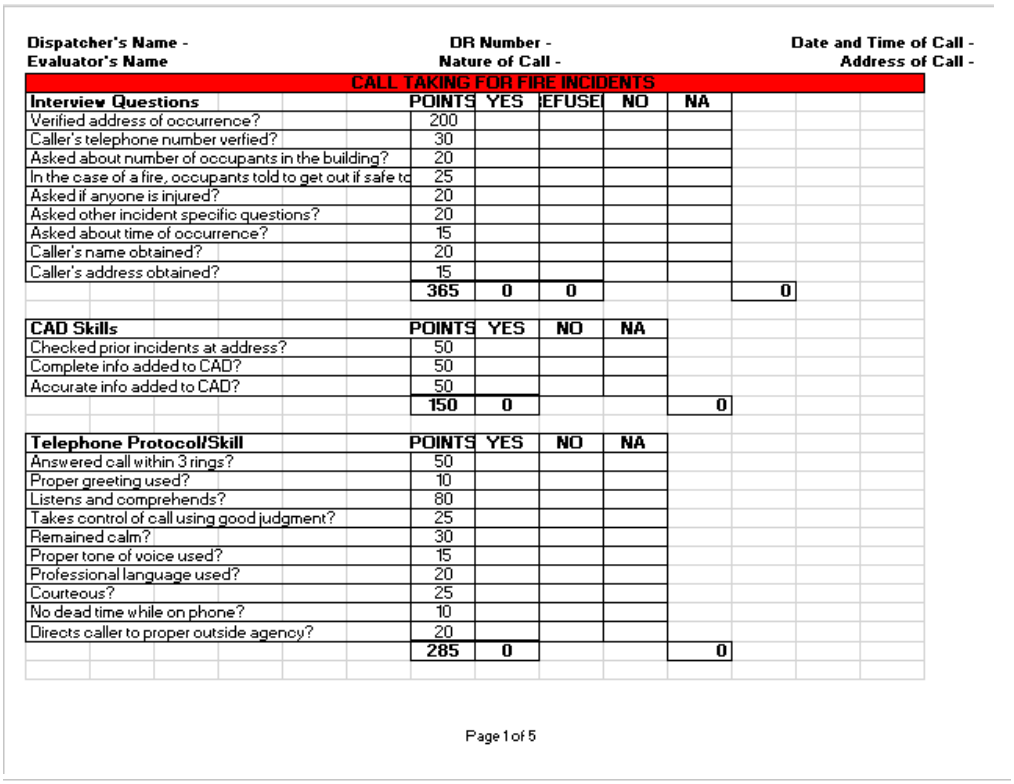
- List of grants applied for and/or received for current year and two previous years
- List 2% fire dues received current year and two previous years

- List and explanation of any other department revenue received i.e. inspections fees, permit fee, etc.
- Other information needed:
    - Equalized Assessed Valuation (EAV) if multiple communities for all

Any Additional Information Deemed Important

Revised: April 2021

Appendix B – PSAP QA/QI Reports (Fire and EMS)



Dispatcher's Name - **DR Number -** **Date and Time of Call -**
Evaluator's Name **Nature of Call -** **Address of Call -**

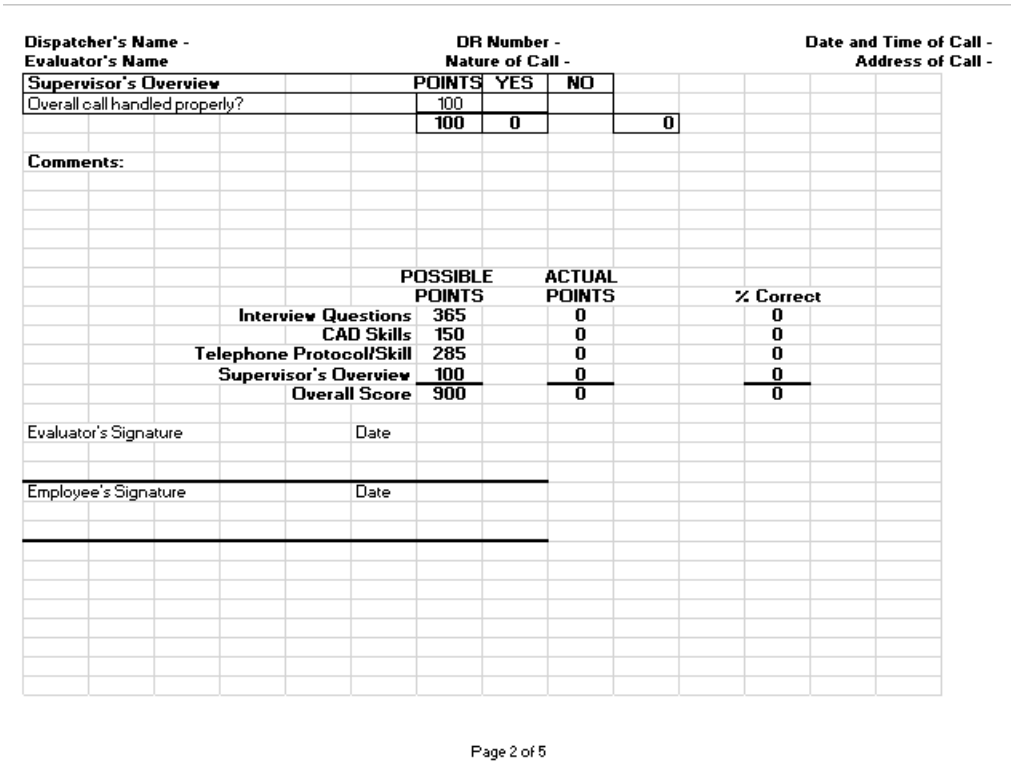
CALL TAKING FOR FIRE INCIDENTS

Interview Questions	POINTS	YES	REFUSE	NO	NA	
Verified address of occurrence?	200					
Caller's telephone number verfied?	30					
Asked about number of occupants in the building?	20					
In the case of a fire, occupants told to get out if safe to	25					
Asked if anyone is injured?	20					
Asked other incident specific questions?	20					
Asked about time of occurrence?	15					
Caller's name obtained?	20					
Caller's address obtained?	15					
	365	**0**	**0**			**0**

CAD Skills	POINTS	YES	NO	NA	
Checked prior incidents at address?	50				
Complete info added to CAD?	50				
Accurate info added to CAD?	50				
	150	**0**			**0**

Telephone Protocol/Skill	POINTS	YES	NO	NA	
Answered call within 3 rings?	50				
Proper greeting used?	10				
Listens and comprehends?	80				
Takes control of call using good judgment?	25				
Remained calm?	30				
Proper tone of voice used?	15				
Professional language used?	20				
Courteous?	25				
No dead time while on phone?	10				
Directs caller to proper outside agency?	20				
	285	**0**			**0**

Page 1 of 5



Dispatcher's Name - **DR Number -** **Date and Time of Call -**
Evaluator's Name **Nature of Call -** **Address of Call -**

Supervisor's Overview	POINTS	YES	NO	
Overall call handled properly?	100			
	100	**0**		**0**

Comments:

	POSSIBLE POINTS	ACTUAL POINTS	% Correct
Interview Questions	**365**	**0**	**0**
CAD Skills	**150**	**0**	**0**
Telephone Protocol/Skill	**285**	**0**	**0**
Supervisor's Overview	**100**	**0**	**0**
Overall Score	**900**	**0**	**0**

Evaluator's Signature Date

Employee's Signature Date

Page 2 of 5

Dispatcher's Name - **DR Number -** **Date and Time of Call -**
Evaluator's Name **Nature of Call -** **Address of Call -**

DISPATCHING FOR FIRE INCIDENTS

Assignment of Incident	POINTS	YES	NO	NA	
Processes incident promptly (under 1 minute)?	25				
Correct number of apparatus assigned?	25				
Nature given when initiating dispatch?	15				
Followed proper dispatch protocol?	40				
Double phrased location?	40				
Dispatched info accurately?	25				
Dispatched info concisely?	40				
	210	**0**			**0**

Summarization	POINTS	YES	NO	NA	
Notified responders of scene safety issues?	30				
All pertinent infor from CAD disseminated?	30				
	60	**0**			**0**

Information Flow	POINTS	YES	NO	NA	
Answered radio traffic in a timely fashion?	20				
Correctly identified apparatus requesting info?	20				
Correctly identified info requested?	20				
Correctly identified info given?	20				
Complete info added to CAD?	25				
Accurate info added to CAD?	25				
Dissemination of critical/confidential info appropriately	25				
	155	**0**			**0**

Radio Protocol/Skill	POINTS	YES	NO	NA
Listens and comprehends?	60			
Articulates?	10			
Remained calm?	25			
Professional language used?	20			

Dispatcher's Name - **DR Number -** **Date and Time of Call -**
Evaluator's Name **Nature of Call -** **Address of Call -**

Professional demeanor?	20				
	135	**0**			**0**

Mutual Aid and Automatic Aid	POINTS	YES	NO	NA	
Proper departments selected and notified?	20				
Immediate dissemination of alarm info?	25				
Staging info disseminated?	10				
Correct alarm level disseminated?	10				
Appropriate notifications made in a timely fashion?	20				
	85	**0**			**0**

Supervisor's Overview	POINTS	YES	NO	NA	
Overall call handled properly?	100				
	100	**0**			**0**

Comments:

	POSSIBLE POINTS	ACTUAL POINTS	% Correct
Assignment of Call	**210**	**0**	**0**
Summarization	**60**	**0**	**0**
Information Flow	**155**	**0**	**0**
Radio Protocol/Skills	**135**	**0**	**0**
Mutual and Automatic Aid	**85**	**0**	**0**
Supervisor's Overview	**100**	**0**	**0**
Overall Score	**745**	**0**	**0**

Dispatcher's Name - **DR Number -** **Date and Time of Call -**
Evaluator's Name **Nature of Call -** **Address of Call -**

Evaluator's Signature		Date	
Employee's Signature		Date	

Dispatcher's Name -
Evaluator's Name -

Long-Term Call ID Number -
Nature of Call -

Date and Time of Call -
Address of Call -

CALL TAKING FOR EMS INCIDENTS						
Interview Questions	**POINTS**	**YES**	**REFUSED**	**NO**	**NA**	
Verified address of occurrence?	200					
Verified caller's telephone number?	30					
Determined why an ambulance is needed?	25					
Determined if the caller is with the patient?	25					
Determined the approximate age of the patient?	20					
Determined if the patient is conscious/awake?	25					
Determined if the patient is breathing?	25					
Followed protocols regarding further questioning for additional information?	30					
Gave appropriate pre-arrival instructions in accordance with protocols?	30					
Gave appropriate instructions to the caller to assist the responders?	30					
Questioned about the number of injured persons?						
Caller's name obtained?	10					
Callers address obtained?	10					
	460		**0**			**0**

CAD Skills	**POINTS**	**YES**	**NO**	**NA**	
Checked prior incidents at address?					
Complete info added to CAD?	50				
Accurate info added to CAD?	50				
	100	**0**			**0**

Telephone Protocol/Skill	**POINTS**	**YES**	**NO**	**NA**
Answered call within two rings?	50			
Proper greeting used?	10			
Listens and comprehends?	80			
Takes control of call using good judgment?	25			
Remained calm?	30			

Dispatcher's Name -
Evaluator's Name -

Long-Term Call ID Number -
Nature of Call -

Date and Time of Call -
Address of Call -

Telephone Protocol/Skill	**POINTS**	**YES**	**NO**	**NA**	
Proper tone of voice used?	15				
Professional language used?	20				
Courteous?	25				
No dead time while on phone?	10				
Directs caller to proper outside agency?					
	265	**0**			**0**

Supervisor's Overview	**POINTS**	**YES**	**NO**	
Overall call handled properly?	100			
	100	**0**		**0**

Comments:

	POSSIBLE POINTS	**ACTUAL POINTS**	**% Correct**
Interview Questions	**460**	**0**	**0**
CAD Skills	**100**	**0**	**0**
Telephone Protocol/Skills	**265**	**0**	**0**
Supervisor's Overview	**100**	**0**	**0**
Overall Score	**925**	**0**	**0**

Evaluator's Signature Date

Employee's Signature Date

Dispatcher's Name -
Evaluator's Name -

Long-Term Call ID Number -
Nature of Call -

Date and Time of Call -
Address of Call -

DISPATCHING FOR EMS INCIDENTS					
Assignment of call	**POINTS**	**YES**	**NO**	**NA**	
Processes incident promptly?	25				
Nature given with initial dispatch?	15				
Followed proper dispatch protocol?	40				
Dispatched info accurately?	40				
Dispatched info concisely?	20				
Notified EMS personnel of prior incidents?					
	140	**0**			**0**
Summarization	**POINTS**	**YES**	**NO**	**NA**	
Notified responders of scene safety issues?	30				
All pertinent info from CAD disseminated?					
	30	**0**			**0**
Information Flow	**POINTS**	**YES**	**NO**	**NA**	
Answered radio traffic in a timely fashion?	20				
Correctly identified apparatus requesting info?	20				
Correctly indentified info requested?	20				
Correctly identified info given?	20				
Complete info added to CAD?	25				
Accurate info added to CAD?	25				
Dissemination of critical/confidential info appropriately	25				
	155	**0**			**0**
Radio Protocol/Skill	**POINTS**	**YES**	**NO**		
Listens and comprehends?	60				
Articulates?	10				
Remained calm?	25				
Professional language used?	20				
Professional demeanor?	20				
	135	**0**		**0**	

Page 3 of 4

Dispatcher's Name -
Evaluator's Name -

Long-Term Call ID Number -
Nature of Call -

Date and Time of Call -
Address of Call -

Supervisor's Overview	**POINTS**	**YES**	**NO**	
Overall call handled properly?	100			
	100	**0**		**0**

Comments:

	POSSIBLE POINTS	**ACTUAL POINTS**	**% Correct**
Assignment of Call	**140**	**0**	**0**
Summarization	**30**	**0**	**0**
Information Flow	**155**	**0**	**0**
Radio Protocol/Skills	**135**	**0**	**0**
Supervisor's Overview	**100**	**0**	**0**
Overall Score	**560**	**0**	**0**

Evaluator's Signature Date

Employee's Signature Date

Appendix C – City of Skagway, AK

Resolution No. 200-06R

CITY OF SKAGWAY, ALASKA

RESOLUTION NO. 2000-06R

A RESOLUTION OF THE CITY OF SKAGWAY, ALASKA AMENDING AMBULANCE FEES AND REPEALING RESOLUTION 88-17R, RESOLUTION 91-8R AND RESOLUTION 96-8R.

WHEREAS, Resolution No. 88-17R, Resolution No. 91-8R and 96-8R established fees for ambulance service; and

WHEREAS, The City of Skagway provides ambulance and EMS service; and

WHEREAS, It is necessary to increase the ambulance fees to cover increased service and personnel costs;

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Skagway that:

Ambulance Fees:

1. That a flat fee for Basic Life Support (BLS) shall be set at $350.00 plus mileage.

2. That a flat fee for Advanced Life Support (ALS) shall be set at $500.00 plus mileage.

3. That each fee listed above include all supplies.

4. That the transportation fee shall be set at $5.00 per mile. The transportation fee will be added to all responses beyond the Yakutania Point junction (Mile 3.6 Dyea Road) or the Liarsville campground (Mile 3.0, Klondike Highway).

5. That a medivac escort fee shall be set at $75.00 per attending EMT for patients transported by air, road or water to patient care facilities outside of Skagway. Charges for transportation by private carrier will be billed directly to the patient by the carrier.

Ambulance Subscriptions:

1. Any person may subscribe for ambulance service for a fee of $10.00 per person per fiscal year or $25.00 per family per fiscal year. The fiscal year will run from July 1 through June 30 of the following year. A family is defined as immediate family living in one household for purposes of the subscription fee.

2. The base rate is waived for subscribers; however, charges for transportation, supplies and medivac escort are not waived.

BE IT FURTHER RESOLVED, that Resolution 88-17R, Resolution 91-8R and Resolution 96-8R are hereby repealed.

Effective Date: Fees shall become effective immediately upon passage of this Resolution.

PASSED AND APPROVED THIS 20TH DAY OF APRIL, 2000 BY THE CITY COUNCIL OF THE CITY OF SKAGWAY, ALASKA.

ATTEST:

Marjorie D. Harris, CMC, City Clerk	John Mielke, Mayor

(SEAL)

Appendix D – Ambulance Subscription Program

MUNICIPALITY OF SKAGWAY
AMBULANCE SUBSCRIPTION
FOR THE YEAR JULY 1, 2019 THROUGH JUNE 30, 2020

FROM RESOLUTION 2000-06R

Ambulance Subscriptions:

1. Any person may subscribe for ambulance service for a fee of $10.00 per person per fiscal year or $25.00 per family per fiscal year. The fiscal year will run from July 1 through June 30 of the following year. A family is defined as immediate family living in one household for purposes of the subscription fee.

2. The base rate is waived for subscribers; however, charges for transportation, supplies and medevac escort are not waived.

Users of ambulance services are responsible for the following fees; only flat fees specified in 1 and 2 below are waived with an ambulance subscription.

1. That a flat fee for Basic Life Support (BLS) shall be set at $350.00 plus mileage. *$350 WAIVED WITH SUBSCRIPTION*

2. That a flat fee for Advanced Life Support (ALS) shall be set at $500.00 plus mileage. *$500.00 WAIVED WITH SUBSCRIPTION*

3. That each fee listed above includes all supplies.

4. That the transportation fee shall be set at $5.00 per mile. The transportation fee will be added to all responses beyond the Yakutania Point junction (Mile 3.6 Dyea Road) or the Liarsville campground (Mile 3.0, Klondike Highway).

5. That a medevac escort fee shall be set at $75.00 per attending EMT for patients transported by air, road or water to patient care facilities outside of Skagway. Charges for transportation by private carrier will be billed directly to the patient by the carrier.

If you would like to subscribe to the ambulance service, send a check payable for the appropriate amount, made out to the **Municipality of Skagway** and mail to:
P.O. Box 415
Skagway, Alaska 99840

Please return this bottom portion with your check

FY 20 Ambulance Subscription Service

Effective July 1, 2019 through June 30, 2020
Check one (1):

- ❒ $10.00 Single
- ❒ $20.00 Couple
- ❒ $25.00 Family

_____ _____
Name Signature

Family Member Names (***print clearly***):

_____ _____ _____

_____ _____ _____

Physical Address: _____ Mailing Address: _____

Phone Number: _____

Appendix E – Job Description: Full-time Career Firefighter/Medic

MUNICIPALITY OF SKAGWAY
FIRE DEPARTMENT
JOB DESCRIPTION

POSITION TITLE: Firefighter / EMT III or Paramedic

POSITION SUPERVISOR: Fire Chief

HIRING AUTHORITY: Selection Committee of Fire Chief, Public Safety Committee Member, Borough Manager.

WAGE RANGE: Entry Level rate of pay at appointment DOE not to exceed the current pay scale step #4.
Firefighter 1/Paramedic: Base pay $26.57/hr. = Grade 15
Firefighter 1/EMT III: Base pay $24.59/hr. = Grade 14

SUMMARY:
Under general or immediate supervision of the Fire Chief and/or other supervisory personnel within the Fire Department. Controls and extinguishes fires, protects life and property, maintains equipment, and provides emergency medical assistance.

ESSENTIAL DUTIES AND RESPONSIBILITIES:
- Responds to fire alarms and other emergency calls.
- Leads out hose lines, selects and operates hose nozzles depending on type of fire, and directs streams of water or chemicals onto fire.
- Positions and climbs ladders to gain access to upper levels of buildings or to assist individuals from burning structures.
- Creates openings in buildings for ventilation or entrance using manual and mechanically operated tools. Breach concrete block or brick walls, floors, or roofs to gain access to areas involved by fire, using a variety of hand powered tools.
- Protects property from water and smoke by use of waterproof salvage covers and smoke ejectors.
- Assists in salvaging and cleanup operations, removing fire debris after fire is extinguished to locate hidden fires and prevent rekindle.
- Rescues victims from occupancies filled with heat, smoke, and toxic gases. Performs extrications by using a variety of extrication tools.
- Administers first aid and artificial respiration to injured persons and those overcome by fire and smoke.
- Renders emergency medical assistance using defibrillators, telemetry and cardiac drugs as directed by authorized medical personnel; provides sophisticated first aid assistance.
- Communicates with superior during fire by portable two-way radio.

- Performs hazardous materials identification.
- Drives and operates firefighting vehicles and equipment. Maintains vehicles, apparatus, quarters, buildings, equipment and grounds.
- Participates in training in current firefighting methods and techniques. Assists in training programs for department members.
- Participates in drills, demonstrations, and courses in hydraulics, pump operation and maintenance.
- Participates in continuing education and/or training to maintain EMS certifications.
- Prepares clear, accurate and complete reports, logs and documents.
- Assists police when called upon.
- Makes presentations to groups and individuals on subjects related to the job.
- Follows all safety regulations, policies and procedures. Reports all unsafe conditions and acts to supervisor. Reports all accidents to the supervisor immediately whenever possible, but no later than end of the employee's work shift. Follows recognized safe work practices.
- Performs other duties as requested or assigned which are reasonably within the scope of the duties enumerated above.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Ability to read and interpret documents such as safety rules, operating and maintenance instructions, and procedure manuals. Ability to write clear, concise and complete routine reports and correspondence. Ability to effectively present information to and respond to questions of a general nature.
- Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals. Ability to compute rate, ratio, and percent and to draw and interpret bar graphs. Ability to apply concepts of basic algebra.
- Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form. Ability to recognize hazardous situations and to act quickly, calmly and decisively in emergencies and under stress.
- Hold a current Alaska EMT-3 or National Registry Advanced EMT certification (or be able to obtain this within one year). Certification as an Alaska Paramedic or National Registry Paramedic preferred.
- Hold a current FF 1 with Alaska Bureau of Fire Accreditation, Standards and Training or be accepted by the Bureau through reciprocity within one year of hire date.
- Requires the ability to obtain Firefighter II certification within two years from date of hire.
- Retain and effectively use geographic knowledge concerning the community and the surrounding vicinity; acquire and retain elementary knowledge of hazardous

chemicals, liquids, and gases at well as the combustion properties of materials; advance a hose line up stairway, ladders, and along the ground to extinguish fires; and use both manual and mechanical tools.

- Individual must function well as a team member as well as work independently. Individual must be able to tolerate and function effectively under stress, be able to work in a paramilitary environment, and accept constructive criticism in a mature fashion. Individual must be able to maintain confidentiality in the performance of one's duties.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- While performing the duties of this job, the employee is regularly required to stand, sometimes for long periods of time. The employee frequently is required to walk; use hands to finger, handle, or feel, such as in the use of various medical equipment; reach with hands and arms, such as in handling hoses and other firefighting equipment, sometimes for prolonged periods of time; climb or balance on stairs and ladders; stoop, kneel, crouch, or crawl while fighting fires and/or assisting in search and rescues; talk or hear; and taste or smell. The employee is occasionally required to sit while completing reports or driving an ambulance or fire apparatus. The employee must regularly lift and/or move up to 50 pounds (various firefighting gear and equipment, frequently lift and/or move up to 100 pounds (hoses and ladders), and occasionally lift and/or move more than 100 pounds (injured or sick people or items creating obstacles). Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.
- The employee must be available and present for work as scheduled; reasonable expectation to be available for call out 24 hours a day, 7 days a week; and perform all functions of the job safely and efficiently at all times in compliance with all safety regulations and policies for the safety and welfare of the employee, co-workers, and the public.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- While performing the duties of this job, the employee is regularly exposed to outside weather conditions and extreme heat. The employee is frequently exposed to fire and/or smoke, wet and/or humid conditions, fumes or airborne particles, and toxic or caustic chemicals. The employee is frequently exposed to hazards associated with emergency driving and work on and around traffic. The employee is frequently exposed to natural and manmade disasters. The employee is occasionally exposed to high, precarious places; risk of electrical shock; explosives; and vibration. The employee is occasionally exposed to persons and/or articles with

contagious/communicable diseases. The noise level in the work environment ranges from moderate to loud, such as working in the station to working at a fire scene or responding to an ambulance call.

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.

EEO Statement: We consider applicants for all positions without regard to race, color, creed, religion, national origin or ancestry, sex, sexual orientation, gender identity, age (40 or over), disability, genetic information, veteran status, or any other legally protected status under local, state, or federal law.