

# Murrells Inlet – Garden City Fire District

## Fire District Audit / Assessment



Conducted By:  
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## Introduction

McGrath Consulting Group, Inc. was commissioned by the Murrells Inlet – Garden City Fire Protection District (MIGCFD) to conduct an independent, non-biased professional assessment/audit of district operations. The study is being performed at the request of the board with the support of the fire chief.

The overarching goal of the study focuses on two primary areas:

- Evaluation of human resources (HR):
  - Employee recruitment/hiring/on-boarding
  - Employee retention
  - Employee job satisfaction
  - Compliance with employment laws/standards/best practices
  - Personnel management
  - Compensation and benefits
- Financial health of the district:
  - Operational needs based on call volume and district expansion/growth
  - Optimal staffing levels
  - Assess need for future tax referendum

In addition to these two focus areas, the study also addresses the following:

- District operations
- Emergency activities data
- National Standards compliance
- Communications/PSAP/dispatch
- Training
- Life safety services (prevention/public education)
- Facility review
- Apparatus/vehicles/equipment review
- Mutual aid / automatic aid

## Study Methodology

Prior to the initial site visit, the consulting team submitted a data request to fire administration. Attached as **Appendix A** is a listing of the data requested by the consulting team. District leadership provided records and various data reports as requested. Data was detailed, complete, and formatted to allow easy analysis.

Consultants spent more than 12 days on-site touring the response area, evaluating the facilities, apparatus, equipment, and the level of risk/threats and target hazards of the district. In several instances the Lead Consultant rode along on emergency responses to watch operations and to see customer interactions.



The most valuable aspect of this study was the time spent interviewing, receiving, and considering stakeholder input. Significant time was dedicated to both formal and informal interviews and discussions. These discussions focused on understanding the culture of the organization and its overall strengths and weaknesses. Interviews were conducted with the following groups:

- District Board Members
- Fire Chief
- Deputy Fire Chief
- Division Chiefs
- Administrative Assistant
- Battalion Chiefs, Captains, and Lieutenants
- Full Time Engineers/Firefighters/EMTs/Paramedics
- Volunteer Firefighters/Support Personnel

In total, consultants spent more than 210 hours in direct face-to-face interaction with district members not including phone calls and email interactions.

The lead consultant had several retired or former employees reach out to him directly wanting to provide information and their individual perspective on district culture and needs. One former district board member also reached out to the lead consultant. Where appropriate, information provided by these individuals was taken into consideration and is included in the overall analysis and findings.

## Study Limitations

With any study of this nature that includes such a wide breadth and depth, limitations always exist due to time, money, and project focus. Limitations of this study include:

- The consultants understand fully that the district's customer base includes residents, businesses, tourists, and employees, yet no community meetings or interviews were conducted outside of board members, employees, and those who reached out to the lead consultant individually. No interviews were conducted with leadership from Horry and Georgetown Counties or any of the surrounding emergency service providers who interact with the Murrells Inlet – Garden City Fire District. This was an intentional move based on the scope of the work identified by the board and fire chief in the contract with McGrath Consulting Group, Inc.
- The consultants did not do a comprehensive compensation study as part of this project. A full compensation study is beyond the scope of work for this project, which thereby limits discussion related to exact wages and benefits. Since wages are a significant issue raised by employees, a comprehensive compensation study would likely prove helpful related to ongoing district decision making and establishment of an exact tax millage.
- The consultants analyzed staffing and the future needs of the district. Based on the current millage and revenue generated, a tax increase will be required to fund ongoing operational,

capital and facility needs. The consultants did not establish a suggested millage rate. This millage rate will need to be established by a professional actuary based on the economy, the cost of staffing, and capital and facility needs at the time of the referendum. Any calculation of rates prior to the referendum date should be considered an estimate and not an accurate depiction of actual costs that will drive the millage rate.

## 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 organization during site visits and material/data provided. Due to the dynamic nature of the district's needs and the fact that changes are already underway based on discussions with leadership, this written report may not fully account for changes that have occurred during the study period that impact the overall situation.

Somewhat unique to this study is the aggressive work by district leadership to address challenges and recommendations communicated to the leadership team by the lead consultants as discovered while working on the study. This work speaks to the quality and concern of Chief Haney and his team to meet the needs of the district in a timely fashion. To try and capture at least some of these changes, a section has been added to the report titled **Changes Based on Feedback**. Although this list will not be all inclusive, it attempts to broaden the "snapshot in time" concern, thereby painting a more complete and ongoing picture of district operations.

## 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.

Five 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/rescue/EMS (paramedic) experience
- Chief Craig A. Haigh, Senior Consultant
  - Lead Consultant for this project
  - 39 years fire/rescue/EMS (paramedic) /emergency management experience
  - Experience serving as Interim Village Manager
  - 15 plus years of managing municipalities' organizational and operational strategic planning
  - Experience in facilitation and management of an international fire service "think-tank"

- Private sector consulting experience focused on employee leadership, strategic planning, 20-Group facilitation, and organizational management
- Ms. Malayna Halvorson Maes, Senior Consultant
  - Human Resources Consultant
  - 20 years experience in both private and public sector human resources
  - Experience as the Human Resources Director and Senior Advisor for a large county in northern Wisconsin
  - Experience serving as Interim County Administrator
- Chief Mike Stried, Consultant
  - Training, prevention/public education, safety consultant
  - 37 years fire/rescue/EMS (paramedic), rescue diver experience
  - Adjunct Instructor – National Fire Academy
- Battalion Chief Larry Pieniazek
  - Facility and Apparatus Consultant
  - 33 years fire experience

*\*\* All but the Project Manager conducted on-site visits*

## 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 4 – Future Consideration**. This system will allow leadership to prioritize the work needing to be done by easily identifying the 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	<b>Urgent/Immediate</b>	Potential threat the life, legal and/or regulatory compliance violations; physiological needs; essential prevention action needed
2	<b>Pressing &lt; Priority 1</b>	Significant impact on organization; action needed as soon as possible
3	<b>Important &lt; Priority 2</b>	Organization will benefit by addressing soon; items that should be accomplished
4	<b>Future Consideration</b>	Items need to be addressed; develop future plan of action; low consequences of delay-action

## Support of District Personnel

The consultants were provided tremendous service and cooperation in all aspects of the study. The coordination, support, hospitality, and willingness to meet, along with open and honest communication, was critical to this study. The consultant greatly appreciates the leadership of Fire Chief J.R. Haney, Deputy Fire Chief Jeff Kosto, and Administrative Assistant Barbara Taylor. Additionally, the willingness to share, and the open and honest communications of the officers and members was invaluable in understanding the culture and issues facing the district.

The lead consultant would also like to extend a personal thank you to Chief Haney and Deputy Chief Kosto for allowing him to utilize the headquarters training room and video projection equipment to deliver the keynote address to the annual conference of the Township Officials of Cook County, Illinois. Additionally, the willingness of the on-duty staff to sit in and serve as a “live audience” during the Zoom presentation enhanced it greatly. Following the presentation, the on-duty staff spent considerable time discussing and sharing ideas with the lead consultant. This interaction provided a nice glimpse into the culture of the organization and the district’s personnel.

## How to Read and Use this Report

When reading this report, the sections related to human resources and finance are both located at the end of the study. This is due to the fact that all other areas of the study become contributing factors related to these two primary focus areas. Without an analysis of each of the other specific areas (i.e., operations, data, national standard compliance, dispatch, training, etc.), it would be impossible for the consultants to understand and then make recommendations on staffing and personnel policies, as well as the revenue needed to support and maintain district operations. Each specific analyzed area builds on the previous and serves to paint a picture of district needs.

It is also important that the reader absorb and apply the information presented in a holistic fashion rather than “cherry picking” any one area. Today’s emergency service operations are complex entities with multiple moving parts and an ever-increasing demand for service from its customers. The customer base of Murrells Inlet – Garden City Fire District includes the residents (permanent and seasonal), the businesses, tourists, and the employees of the district. All combined, this diverse customer base makes district leadership very challenging. To that point, the overarching needs of each customer base include:

- **District Residents** – Desires services that are high quality and readily available to address their emergency needs in a timely fashion so to minimize loss. This includes providing medical care that is compassionate and focuses on treatments and procedures that serve to minimize long term deficit and maintain a quality-of-life post injury or illness. Residents understand that there is a cost associated with this expectation, but they also understand their personal ability to pay. If they are going to sacrifice in dollars spent to support the service of the district, financial accountability is paramount.
- **Businesses** – Desire services that will support their business without being overly intrusive.

- **Tourists** – Likely spend zero time thinking about emergency services and assume that if they need assistance, services will simply be available. They are in the district to relax and have fun and assume that “someone” has already paid to have any service they might need readily available. They are not taxpayers that support district services but primarily consumers of the services made available by the residents and businesses of the district.
- **Employees** – Desire to be treated as a professional with a level of care, compassion, and understanding for who they are as an individual, and what they can contribute to the work of the district. They demand a livable wage, quality benefits, leave time that supports a life away from work, and opportunities for growth and development of their skills, knowledge, and abilities.

It is vitally important for the reader to understand that with such a diverse range of customer expectations and demands, and the limited availability of funds and time to support and manage the workload of these expectations, no organization, including this district is going to be perfect in all things, and it will not be capable of meeting every customer expectation fully. A level of understanding and grace is essential. Couple this with an awareness that by simply conducting a study of this nature, the district is making a huge attempt to do its best to meet the expectations and needs of its customers. Therefore, utilize this study as a learning tool that provides a framework to improve and grow, and not an opportunity to throw stones or cast aspersions.

## Strategic Planning

This report includes a wide range of recommendations. Many of these recommendations are costly, requiring a huge financial commitment on the part of the residents and businesses of the district. It is unrealistic to think that all recommendations can be accomplished immediately. Many of the stated recommendations will take years to accomplish and many will need to be modified as changes occur over time. This is okay and should be expected. The best path forward will to be use this study as a guiding document to develop a strategic plan that provides goals and objectives that allow focused accomplishment of the recommendations made. As goals are completed, take the time to celebrate the success. Strategic planning will be the key to using this broad ranging study along with a focused understanding that goal establishment and accomplishment must be based on short, mid-range, and long-term processes.

## District Overview

The Murrells Inlet-Garden City Fire District (MIGCFD) was formed in 1966 by the South Carolina State Legislature as a “special purpose district” covering approximately 26.66 square miles, located on the coast of South Carolina just south of Myrtle Beach. The district includes territory in both Horry and Georgetown Counties and is part of the Grand Strand, which is an arc of beach land along the Atlantic Ocean. North Myrtle Beach, Myrtle Beach, Surfside Beach, Garden City, Murrells Inlet, and Georgetown are the primary communities in the region with tourism for the Grand Strand exceeding 20 million visitors annually. The area protected by the district is bordered by the Atlantic Ocean on one side and the Waccamaw River on the other.

In 2013, Horry County was reportedly one of the fastest growing counties in the nation. Of significance is the district’s response area that falls into the 29576-zip code. This area is growing at a rate nearly twice that of other areas of Horry County. Horry County’s comprehensive plan expects this growth rate to continue for several years into the future.

The current district population includes approximately 30,000 full-time residents, which surges greatly with regional tourism. The protected area is a high-end resort with numerous gated communities. The average age of the permanent residents is 58 years old. Currently impacting the district is the population expansion as additional housing developments are under construction. Several of these new developments are being marketed as retirement communities for the 55+ age bracket.

In addition to these retirement communities, the district also includes six elderly care facilities with one under construction. Two of these facilities have separate small apartment size houses on the property for residents who are still capable of independent living. All these facilities have a significant impact on EMS services which will only increase as the new facility comes on-line.

## Special Purpose District

The district operates as a Special Purpose District. Special Purpose Districts within State of South Carolina are codified by Code of Laws §6-11-1610.

*S.C. [Code of Laws §6-11-1610](#) defines a special purpose district as a district created by an Act of the General Assembly or pursuant to general law and which provides any governmental power or function including, but not limited to, fire protection, sewerage treatment, water or natural gas distribution or recreation. Special purpose districts do not include any state agency, district, commission, or school district.*

A six-person Board of Directors, appointed by the South Carolina Governor, oversees the district. Operational control and management of the district is vested in the Fire Chief who is appointed by the district board.

When the district was created in 1966, it operated as a volunteer organization for many years. Full-time firefighters were added to supplement the volunteers and to assist with the increasing call volume. In the early 2000s (2001), a volunteer rescue squad that had provided EMS service to the district went out of business and it was decided by the district board to bring responsibility for EMS transport into the fire district. This caused a substantial increase in call volume, which meant the need to hire additional staff. The district saw another significant increase in call volume in 2017, when it annexed an area that had previously been covered for EMS services by Horry County. [REDACTED]

Most of the current board members are new to their positions, with only a few having long-term experience. Reportedly, previous boards were very hands-on and were overly involved in operations. This limited the power of the fire chief and opened the door for district members to circumvent the chain-of-command by bringing complaints directly to the board members. The current board works hard to discourage this practice, with focused attention on governance and with operations left to the fire chief.

#### Current Board Members:

- Gene Connell – Board Chair
  - Formerly served as legal counsel to the board
  - Represents Horry County
- Pat Walsh – Vice Board Chair
  - Represents Horry County
- Elizabeth Ward – Board Treasurer
  - Represents Georgetown County
- Allison Burns
  - Represents Horry County
- Kay Benton
  - Represents Georgetown County
- John Magann
  - Represents Georgetown County

#### Labor Management/Union

Some members have elected to join the International Association of Fire Fighters as part of the Murrells Inlet – Garden City Professional Fire Fighters Association – Local 4940. Collective bargaining is prohibited by statute in South Carolina for all public-sector employees. This inability to collectively bargain over wages, benefits, and working conditions makes the Local a social organization of district membership who voluntarily agrees to associate. The Local has no rights to be heard by district leadership or to advocate on behalf of its membership as a formal part of employment.

## Fire Chief's Perspective

Attached as **Appendix B** is an overview memo submitted by Chief J.R. Haney related to his perspective on the needs of the fire district. Although this memo did not drive the study, it is very much in alignment with the analysis and conclusions found throughout this study.



# District Operations

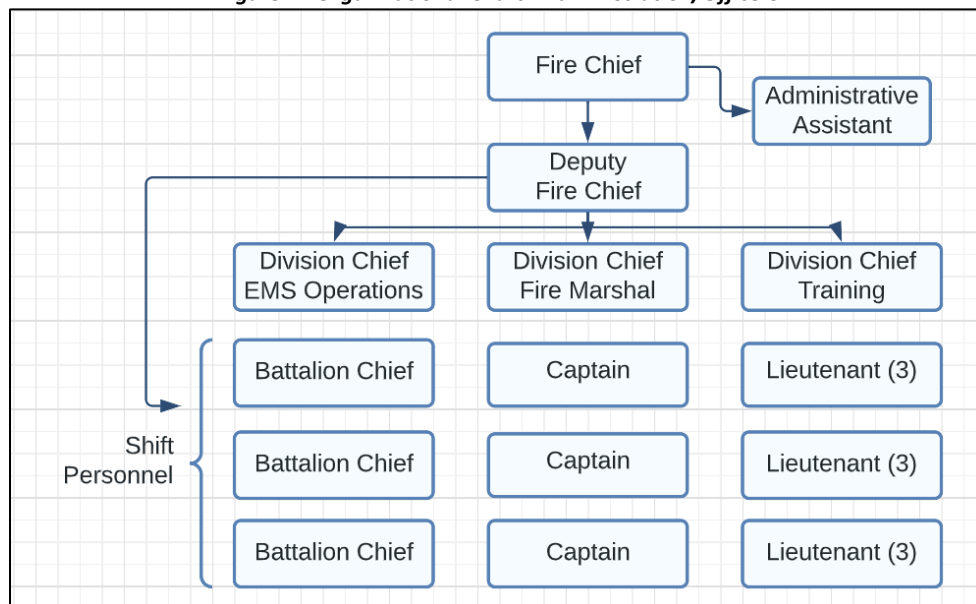
## Organizational Structure

The district operates with a total authorized strength of 61 full-time career responders and seven volunteers. The volunteers primarily provide support services but are not precluded from operating in a fire/rescue position if they have been trained and can pass the annual medical and physical testing standards required of a line firefighter. An additional 18 volunteers staff the reception desk at the headquarters fire station.

District staffing is divided into two distinct categories with occasional crossover during larger scale emergency events.

- Administration – Consisting of the fire chief, deputy fire chief, division chiefs, and the administrative assistant. The administrative assistant provides support to the fire chief including assistance with financial management/accounting and human resources.
- Operations - Consists of three 24-hour shifts each headed by a battalion chief. The shift schedule of the district is 24-hours on-duty, with a corresponding 48-hours off-duty. Each shift is assigned 18 personnel, which includes the battalion chief. Supervisory support of each battalion chief consists of a captain and three lieutenants per shift. The captain and lieutenants function as company officers in addition to having limited administrative responsibilities for special assignments or projects. In addition to the officers, each shift includes four engineers (fire apparatus operators) and nine firefighter/EMTs/paramedics.

**Figure 1: Organizational Chart - Administration/Officers**



MIGCFD operates out of four stations responding with staffed equipment consisting of two Engine Companies, one Quint, one Truck Company, three Advanced Life Support Ambulances, and one peak-time Advanced Life Support Ambulance. The on-duty battalion chief responds with a pickup truck equipped as a command vehicle, along with Advanced Life Support and water rescue equipment. Stations are as follows:

- Station 76 – 3641 Hwy 17 Business, Murrels Inlet, SC 29576
- Station 77 – 280 Azalea Avenue, Garden City, SC 29576
- Station 78 – 4463 New River Road, Murrels Inlet, SC 29576
- Station 79 – 11200 McDowell Shortcut Road, Murrells Inlet, SC 29576

The district also operates several specialty programs including surf rescue, boat rescue, high water rescue, hurricane response, and an unmanned aircraft systems/drone. The MIGCFD is a certified regional training site for Rescue Training International and has several instructors that teach rescue courses in various modalities throughout the Southeast.

## Company Staffing Levels

Based on shift staffing of 18 personnel, company staffing is as follows (maximum staffing level):

- Truck Company – officer, engineer, firefighter
- Quint Company – officer, engineer, firefighter
- Engine Company – officer, engineer, firefighter
- Engine Company – officer, engineer
- Ambulance Company – 2 firefighter/paramedics/EMTs (minimum of one paramedic)
- Ambulance Company – 2 firefighter/paramedics/EMTs (minimum of one paramedic)
- Ambulance Company – 2 firefighter/paramedics/EMTs (minimum of one paramedic)
- Battalion Chief

### Peak-time ambulance

The peak-time ambulance is staffed, when possible, with part-time personnel. This unit operates with 2 firefighter/paramedics/EMTs (minimum of one paramedic).

This unit was placed into service in July 2021 to help alleviate the workload on the three full-time ambulance companies and reduce the number of mutual aid requests coming into the district. Over the 14 months that this unit has operated, it has been staffed 46.5% of the time due to the limited number of personnel employed by the district.

### Minimum Staffing Levels

Each shift has a two-member flex between the maximum staffing level and the minimum staffing level. Anytime a shift member is off on leave, the staffing levels per shift/per company are impacted as reductions take place to cover vacancies. The current policy establishes “minimum staffing” levels per company as follows:

- Engines and Quint - Reduced to an officer and engineer/firefighter
- Truck – Must maintain staffing of an officer, engineer, firefighter
- Ambulances – Must maintain staff of two firefighter/paramedics/EMTs (minimum of one paramedic)
- Battalion Chief

The minimum staffing policy reduces on-duty staffing levels to 16.

#### Critical Staffing Level

The district utilizes a “critical staffing” policy developed and implemented based on issues seen during the COVID-19 pandemic as well as the challenges in recruiting, hiring, on-boarding, and maintaining staff. This critical staffing level is as follows:

- 2 personnel on all apparatus
- Battalion Chief is shut down and moved to the truck company.

The critical staffing policy reduces on-duty staffing levels to 14.

#### Brown Out Policy

The district maintains a “brown out policy” implemented only in the case of a severe staffing shortage, where a fire company is taken out of service for a period and staffing moved to cover other shift openings. It is the lead consultants understanding that this policy was initiated in response to the COVID-19 pandemic. The brown out policy is attached as **Appendix C**.

**A detailed analysis and discussion of staffing levels is provided in a separate section of this report (i.e., Data, Human Resources, Staffing, Finance).**

#### Call Volume

The MIGCFD is projected to respond to 8,000 calls for service in 2022. This call volume makes MIGCFD one of the busiest districts on the Strand regarding calls per square mile of service area. Currently, 72% of all calls in the district are EMS-related.

Routine hospital transport from the district generally go to either Waccamaw Community Hospital or South Strand Medical Center in Myrtle Beach. The Level I Trauma Center utilized for serious trauma is Grand Strand Medical Center in Myrtle Beach.

#### Insurance Services Office (ISO) - Fire Suppression Rating Schedule

The Fire Suppression Rating Schedule (FSRS) is a system utilized by ISO to review fire prevention and fire suppression capabilities of individual communities or fire protection areas. The schedule measures the major elements of a community’s fire protection system and develops a numerical grading called a Public Protection Classification (PPC®). Scores range in diminishing order from 10 to 1. The best rating received under this model is a Public Protection Class 1 with an area having no fire protection rated as a Public

Protection Class 10. The overall rating considers emergency communications, fire district/district operational capabilities, water supply, and the community's efforts to reduce losses through fire prevention, public fire safety education, and fire investigations. The rating schedule is used primarily by insurance companies to establish premiums for property owners based on the level of risk.

The MIGCFD currently holds a Public Protection Rating of Class 2.

ISO will be discussed in much more detail with information specific to MIGCFD rating in the **National Standards Compliance** section of this report.

## Emergency Activities Data

The primary mission of fire/rescue/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/rescue/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/rescue/EMS leaders to describe data in one word which is illustrated in the figure below:

**Figure 2: 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 district is equivalent to the same measurement from another district. You do not have to “adjust your data to accommodate known distortions”.

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

## Reporting Software

In the recent past, the district utilized Firehouse Software® as its records management system. This was switched June 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/districts 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 most cases, the transition of a data management system is very difficult for an organization to retrieve past data, however, with few exceptions the district has managed this change well, with little loss of past data.

## Incidents by Major Call Category

Fire/rescue/EMS districts most often illustrate their emergency response data in two major categories:

- **EMS** – anything that involves medical treatment (e.g., auto accidents, trauma, heart attack, etc.)
- **FIRE** – everything else, including hazardous material, service calls, false alarms, etc.

Looking at the last three calendar years collectively (2019 – 2021) MIGCFD major call categories are as follows:

**Figure 3: Major Call Categories**

<b>Nature</b>	<b>#</b>	<b>% Of Total</b>
<b>Fire</b>	5,583	<b>27.14%</b>
<b>EMS</b>	14,986	<b>72.86%</b>
<b>Total</b>	20,569	<b>100.0%</b>

## National Fire Incident Reporting System (NFIRS)

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 districts have been invited to participate on a voluntary basis. Participating fire districts collect a common core of information on an incident and any casualties that ensue by using a common set of definitions. 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 district administrators in evaluating their fire and EMS effectiveness and collect data for use at state and national levels.

The district participates in the National Fire Incident Reporting System (NFIRS) as required by the State of South Carolina. Reports are submitted through State Fire, which is a division of the South Carolina District of Labor, Licensing, and Regulations (LLR). This division includes the State Fire Marshal's Office (OSFM). The statute requiring submittal of NFIRS data reads:

*S.C. legislation Chapter 71 – Article 8 – Sub Article 1: The local fire chief or his designee shall furnish to the OSFM the following information:*

- 1. Fire fatalities from fires occurring within the fire district's jurisdiction shall be reported directly to the OSFM immediately.*
- 2. Firefighter line-of-duty deaths shall be reported directly to the OSFM immediately.*
- 3. By the 15th day of each month, information concerning all incidents responded to by the fire district during the preceding month shall be reported. This information shall be reported by a method and in a format approved by the OSFM. The National Fire Incident Reporting System (NFIRS) shall serve as the minimum standard reporting method and format for these monthly reports.*

The below chart provides a 3-year comparison of MIGCFD 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 the district 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.

The following table reflects the 2019 – 2021 Fire District emergency activities of the district utilizing the NFIRS series categories:

**Table 2: Fire District NFIRS Data**

<b>Incident Type Group</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Fire Dist. 3 Yr. %</b>	<b>National %</b>
100 – Fire	73	87	112	1.32%	4.70%
200 - Overpressure/Explosion	2	0	1	0.01%	0.20%
300 – Rescue/EMS	4563	4646	5777	72.86%	64.10%
400 – Hazardous Condition	67	68	64	0.97%	3.70%
500 - Service Call	833	1074	1058	14.41%	7.10%
600 – Cancelled, Good Intent Calls	422	408	481	6.37%	10.50%
700 - False Alarm/False Call	271	265	289	4.01%	8.70%
800 - Severe Weather	0	6	1	0.03%	0.10%
900 - Special Incidents	0	0	1	0.00%	0.70%
<b>Totals</b>	<b>6231</b>	<b>6554</b>	<b>7784</b>	<b>100%</b>	<b>100%</b>

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**

<b>Fire Series 100</b>	<b>Overpressure/Explosion Series 200</b>	<b>Rescue /EMS Series 300</b>
<ul style="list-style-type: none"> <li>• Structure Fires</li> <li>• Fire in mobile property used as a fixed structure</li> <li>• Mobile property (vehicle) fire</li> <li>• Natural vegetation fire</li> <li>• Outside rubbish fire</li> <li>• Outside fire <ul style="list-style-type: none"> <li>○ Mulch</li> <li>○ Outside equipment</li> <li>○ Outside gas or vapor</li> </ul> </li> <li>• Cultivated vegetation, crop fire (not harvested)</li> </ul>	<ul style="list-style-type: none"> <li>• Overpressure rupture from steam – no fire</li> <li>• Overpressure rupture from air or gas – no fire</li> <li>• Overpressure rupture, chemical reaction – no fire</li> <li>• Explosion – no fire</li> <li>• Excessive heat, scorch burns with no ignition</li> </ul>	<ul style="list-style-type: none"> <li>• Medical assist</li> <li>• Emergency medical service incident</li> <li>• Lock-in</li> <li>• Search for lost person</li> <li>• Extrication, rescue</li> <li>• Water or ice-related rescue</li> <li>• Electrical rescue</li> <li>• Rescue or EMS standby</li> </ul>
<b>Hazardous Condition Series 400</b>	<b>Service Call Series 500</b>	<b>Canceled, Good Intent Series 600</b>
<ul style="list-style-type: none"> <li>• Combustible/Flammable spills and leaks</li> <li>• Chemical release, reaction, or toxic condition</li> <li>• Radioactive condition</li> <li>• Electrical wiring/Equipment problem</li> <li>• Biological hazard</li> <li>• Accident, potential accident</li> <li>• Explosive, bomb removal</li> <li>• Attempted burning, illegal action</li> <li>• Hazardous condition, other</li> </ul>	<ul style="list-style-type: none"> <li>• Person in distress</li> <li>• Water problem</li> <li>• Smoke problem</li> <li>• Animal problem or rescue</li> <li>• Public service assistance</li> <li>• Unauthorized burning</li> <li>• Standby at fire station</li> </ul>	<ul style="list-style-type: none"> <li>• Dispatched and cancelled enroute</li> <li>• Wrong location, no emergency found</li> <li>• Controlled burning</li> <li>• Vicinity alarm</li> <li>• Steam, other gas mistaken for smoke</li> <li>• EMS call – Patient left before arrival</li> <li>• Haz-Mat release investigation w/no Haz-Mat found</li> </ul>
<b>False Alarm / False Call Series 700</b>	<b>Severe Weather Series 800</b>	<b>Special Incidents Series 900</b>
<ul style="list-style-type: none"> <li>• Malicious, mischievous false alarm</li> <li>• Bomb scare</li> <li>• System or detector malfunction</li> <li>• Unintentional system or detector operation (no fire)</li> <li>• Biohazard scare</li> </ul>	<ul style="list-style-type: none"> <li>• Earthquake assessment</li> <li>• Flood assessment</li> <li>• Windstorm, tornado/hurricane assessment</li> <li>• Lightning strike (no fire)</li> <li>• Severe weather standby</li> </ul>	<ul style="list-style-type: none"> <li>• Citizen's Complaint</li> <li>• Report of Code or Ordinance Violation</li> </ul>

## Identifying Emergency Service Trends

When determining a district'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 MIGCFD Call Data

When analyzing comparable data between an individual district 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 or community service demand causing the variation.

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

- Fire – Series 100
- EMS – Series 300
- Service – Series 500
- False Alarm – Series 700

**Figure 4: MIGCFD NFIRS Data Variation**

<b>Data Variation: Difference Between National vs. MIGCFD Percentages</b>	
100 – Fire	-3.38%
200 – Overpressure/Explosion	-0.19%
300 – Rescue/EMS	8.76%
400 – Haz. Condition	-2.73%
500 – Service Call	7.31%
600 – Good Intent	-4.13%
700 – False Alarm	-4.13%
800 – Severe Weather	-0.07%
900 – Special Incident	-0.7%

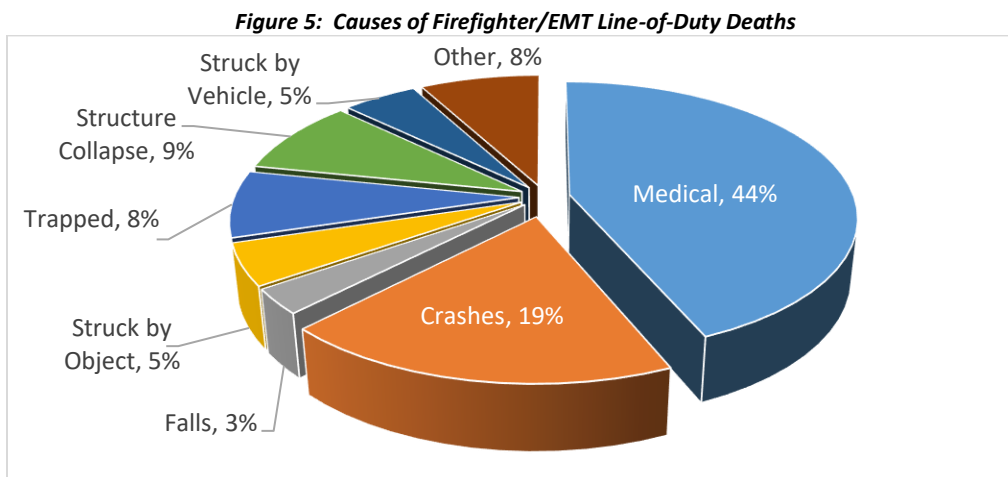
**Series 100 – Fire:** The national average is 4.70% whereas the Fire District is only 1.32%. This indicates that the district responds to a very low number of actual fire incidents which is likely due to the demographics (age and affluence) of the residents including progressive fire prevention, inspections, and public safety education.

**Series 300 – Rescue/Emergency Medical Services:** The district is 8.76% higher than the national average for rescue/EMS related calls. It is important to understand that the national average can be somewhat misleading. The national NFIRS records data from all fire districts, some of which do not do any level of EMS. Our national consulting firm has found that for districts providing EMS services, call volumes for EMS range between 70% to 75%. The reality for today's fire service is that most agencies have become primarily EMS services that happens to also provide fire suppression. Progressive districts work to align their resources with their service demands which are predominately EMS in nature.

**Series 500 – Service Calls:** Service calls for MIGCFD are more than double the national figures. This is likely due to the retirement status/age of the population serviced by the district necessitating responses for lift assists and other non-emergency service calls. Although these calls may not be categorized as a true emergency, they are certainly services needed by the residents and should be answered with a timely and professional response. In most cases, the residents have no one else to call which necessitates the district filling this demand.

**Series 700 – False Alarms/Calls:** The district should be commended for its low percentage of false alarm calls compared to the national average (less than one-half). This accomplishment is most likely due to the leadership's emphasis on safety and follow-up of false calls by the fire marshal's division.

Why is this important? False alarms are a drain on a district's resources, prevent personnel from responding to actual emergencies, and increase the chances for vehicle accidents. Not only does the resolution of false alarms reduce unnecessary emergency responses, it also is a significant safety factor for the community as well as the service providers. Vehicle accidents (responding to or returning from) are the second leading cause of firefighter/paramedic/EMT line-of-duty deaths as illustrated in the chart below:



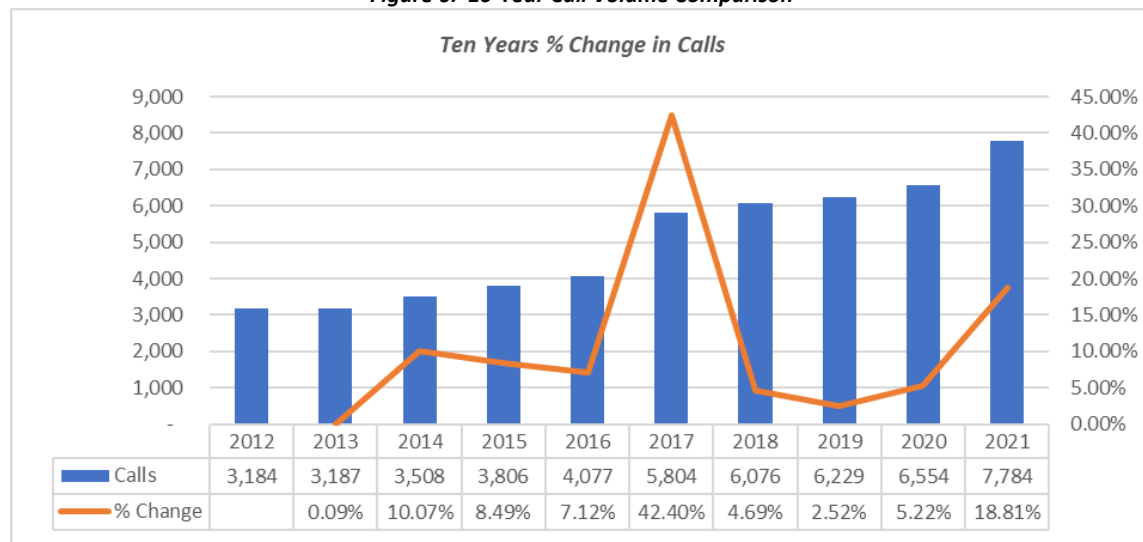
*Source: NFPA Firefighter Deaths by Cause of Injury*

### Ten Year % Change in Emergency Responses

The district has experienced a significant change in call volume over the last 10 years. Call volume in 2021 compared against 2012 has more than doubled (144.5% increase). This is a significant change for a service provider in such a small timeframe.

The chart below illustrates the steady increase in call volume. It also notes the large change seen in 2017 where incidents increased by 42.40%. The reason for this increase was the addition of a new fire station in Horry County. Prior to that year, the Fire District did not provide EMS transport services to that part of the County.

**Figure 6: 10-Year Call Volume Comparison**



*Dotted orange line indicates the trend line for % of change*

## EMS Incidents by Nature

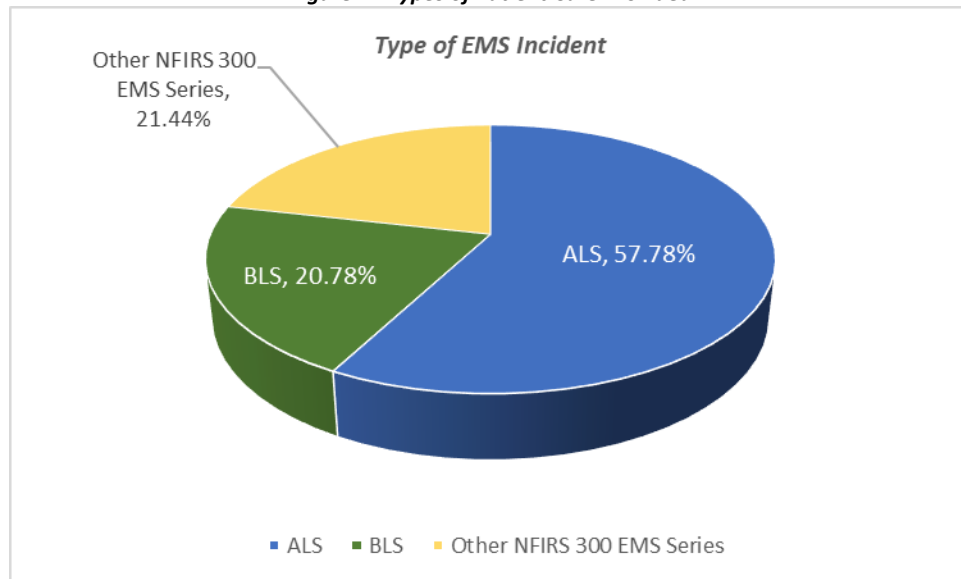
Looking at the last 3 years (2019 – 2021) EMS accounts for 72.86% of all calls.

EMS responses can be divided by the type of patient care provided:

- Advance Life Support (ALS)
- Basic Life Support (BLS)
- First Responder (Typically non-transport)

The table below illustrates the percentage of EMS incidents in each category for the 3-year study period.

**Figure 7: Types of Patient Care Provided**

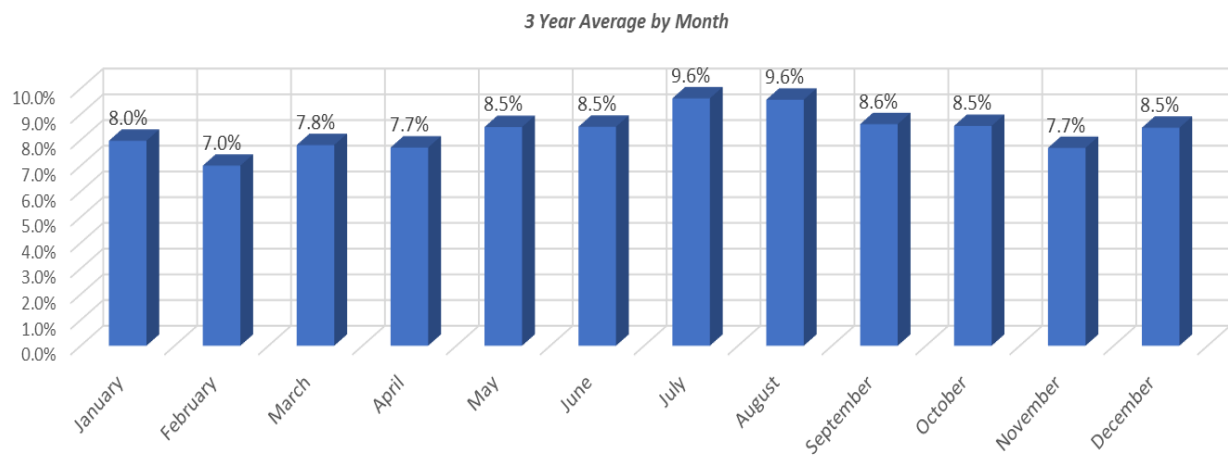


Important to note is the percentage of responses where advanced life support care is provided (i.e., paramedic level care). This illustrates the criticality of the incidents and the level of care required to treat the patients. This high level of ALS care is likely due to the age of the residents serviced by the district.

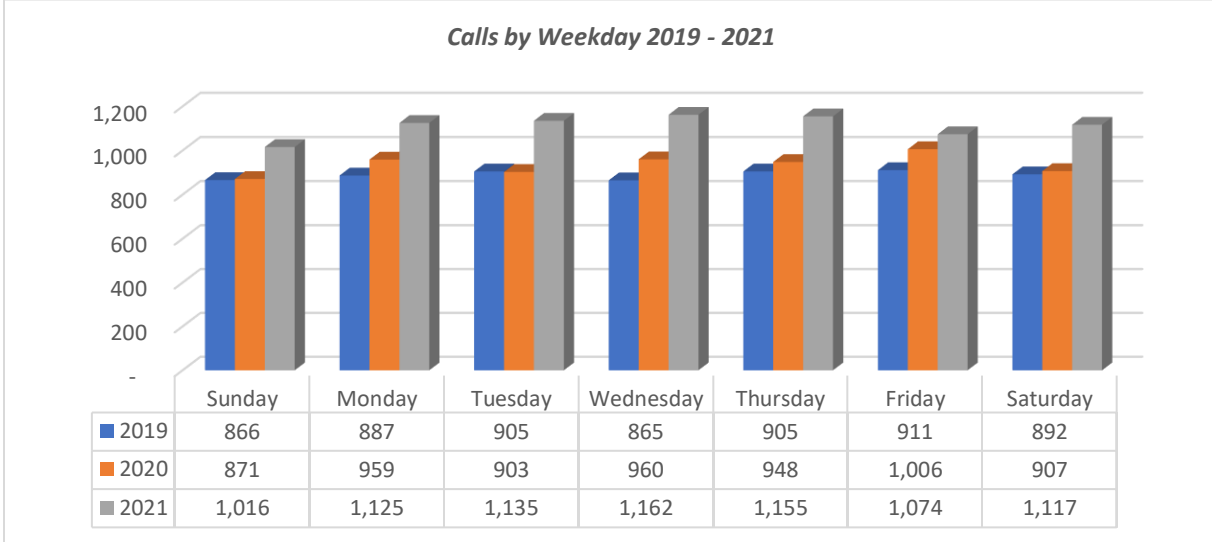
### When Calls are Occurring

Data indicating when calls are received helps to identify trends. When a pattern is discovered, it indicates the probability that emergency incidents will occur at a certain time and allows the district to anticipate staffing levels and make contingency plans for adequate personnel or other resources needed for emergency response.

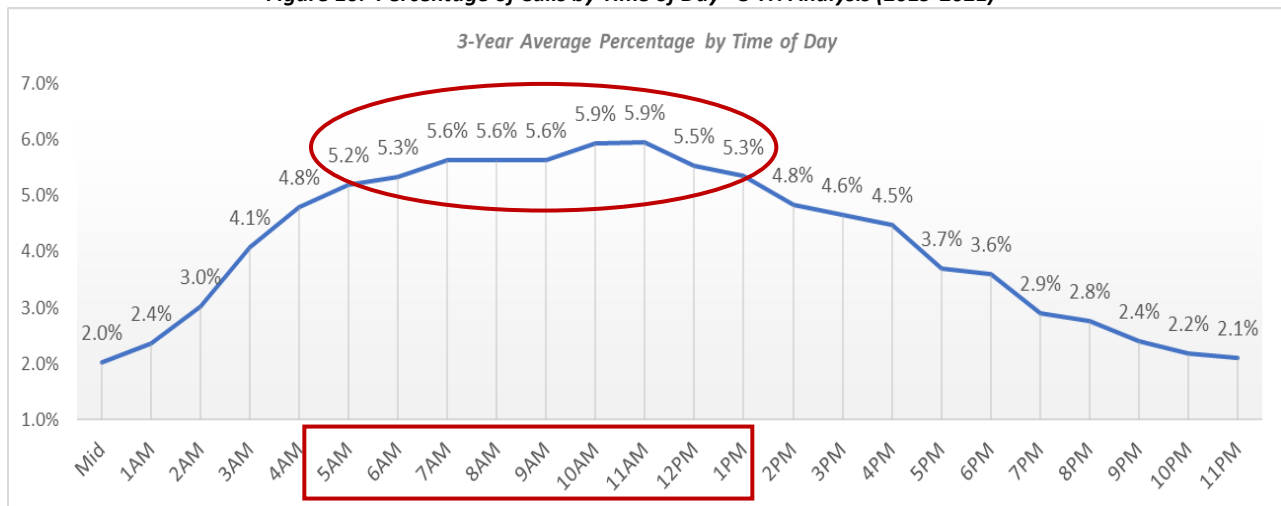
**Figure 8: Calls by Month - 3 Yr. Analysis (2019-2021)**



**Figure 9: Calls by Day of Week - 3 Yr. Analysis (2019-2021)**



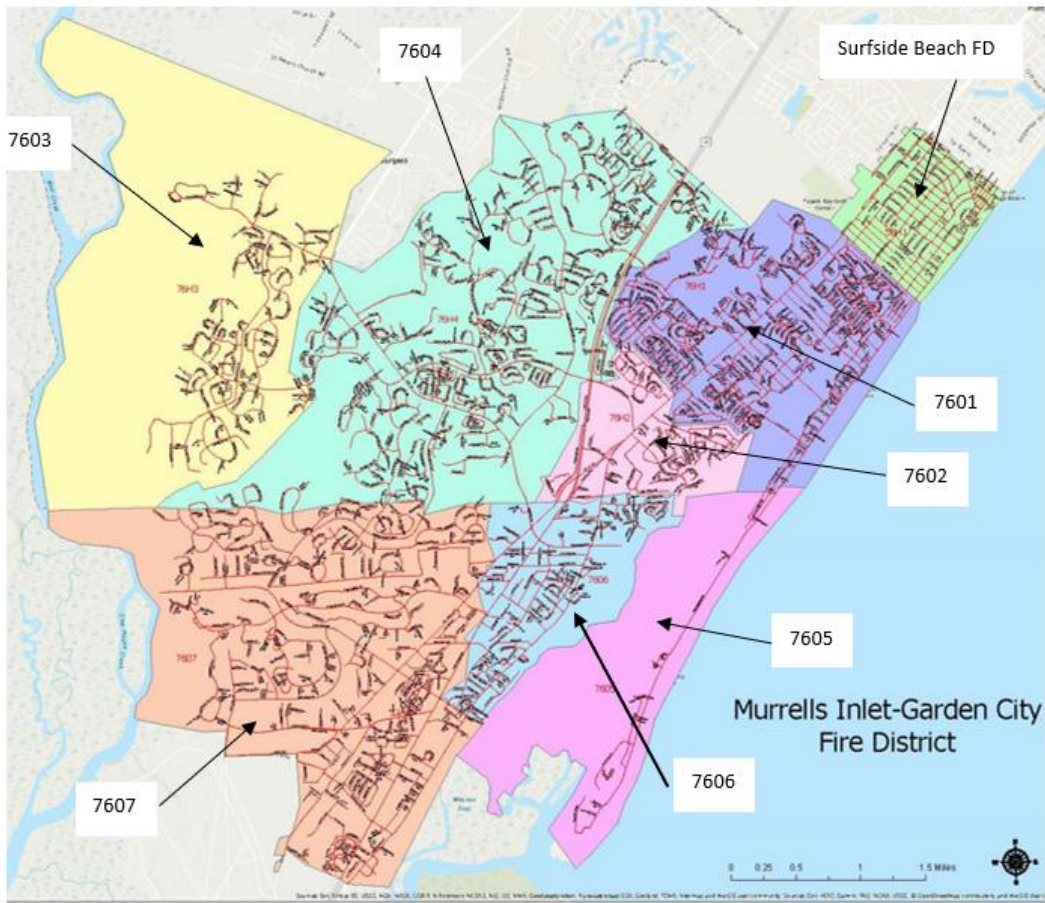
**Figure 10: Percentage of Calls by Time of Day - 3 Yr. Analysis (2019-2021)**



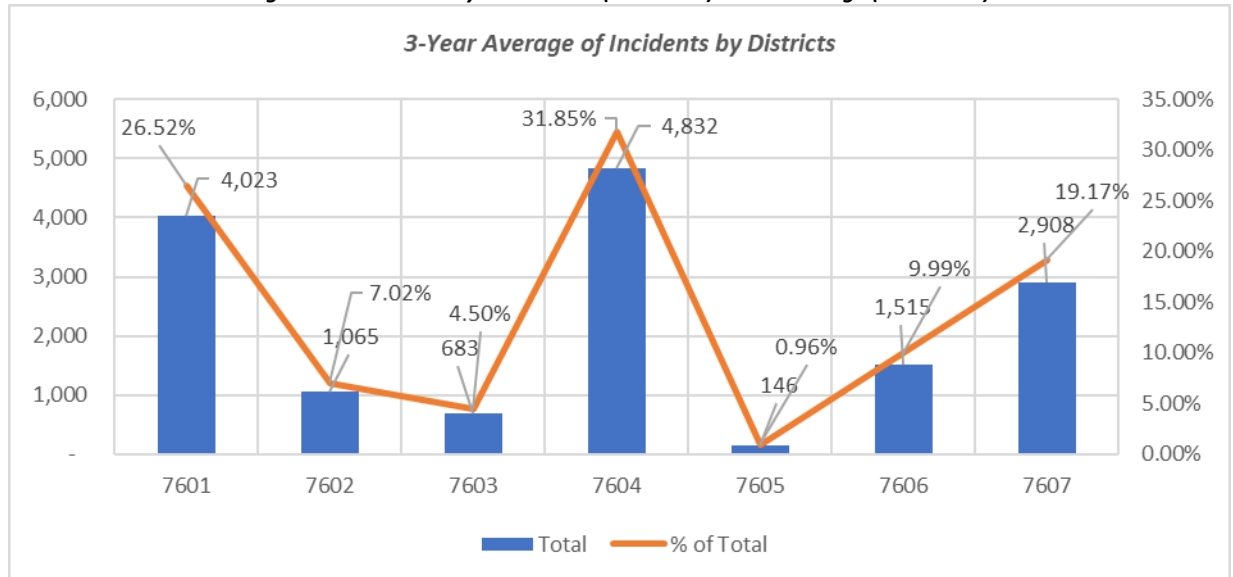
## Incidents by Response Districts

Each station is assigned a first-due area (still district or call box) in which to respond. Stations should have a level of overlap and should respond to other still districts when events demand additional resources, or the primary first-due apparatus is unavailable.

**Figure 11: Still District Map (call boxes)**



**Figure 12: Incidents by Still District (call boxes) - 3 Yr. Average (2019-2021)**



Recently, district leadership made modifications to the still district/call boxes to better distribute call load based on non-still district response order. These changes were made in coordination with the 9-1-1 dispatch centers and Horry County GIS mapping. Once these changes took effect, there was an immediate improvement in the amount of calls each unit handles with an overall balancing of the workload. This change is new enough that conclusive data is not yet available.

## Overlapping Incidents

The term “overlapping incident” is utilized by Firehouse Software™ that refers to times when the district is handling an emergency, and another unrelated emergency incident occurs requiring immediate response.

Fire districts do not have the ability to “stack calls” as do police agencies who routinely prioritize calls and dispatch accordingly. With a few exceptions, when a 9-1-1 caller requests a fire district response, it is for an emergency – at least in the opinion of the caller.

If every piece of fire or EMS apparatus were available at its assigned location every time a call for service was received, the fire district’s reliability would be 100%. If, however, a call is received for a station/unit, but that station/unit is already committed to another incident, the next closest unit must respond from a different station or location. In this case, the substitute company may exceed the maximum prescribed response time. As the number of emergency calls per day increases, the probability increases that the primary unit needed for response is already committed and a backup or mutual aid unit will need to be dispatched. Today in most fire districts, overlapping/simultaneous calls are EMS in nature.

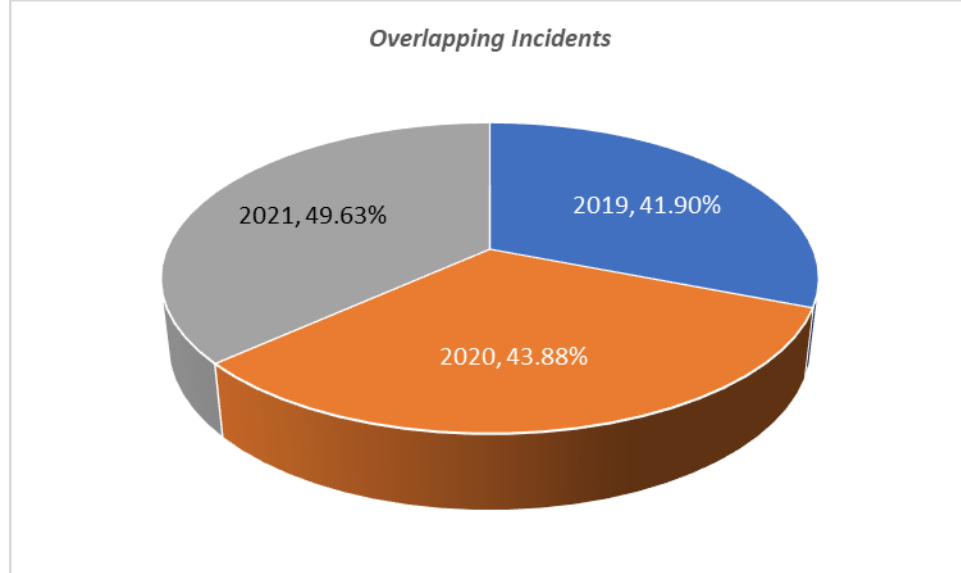
***Reliability** is the probability that the resource/apparatus assigned to a territory will be available to respond from within that territory when an emergency occurs in that area. There are times a call is received when the first-due company is out of area or unavailable. When that occurs, the next closest unit must respond, resulting in a possible elongated response time.*

### Fire District Reliability

The table and chart below illustrate when the district had multiple separate incidents occurring (overlap/simultaneous) for each of the three-year study period. Overlap/simultaneous calls ranged from one additional separate incident to six incidents occurring at the same time.



**Figure 13: Percentage of Overlapping Incidents - 3 Yr. Analysis (2019-2021)**



**Figure 14: Number of Overlapping Incidents by Year (2019-2021)**

Overlapping = Original Call Plus #s of Simultaneous Separate Incidents							
2019			2020			2021	
1	1,940		1	2,110		1	2,632
2	506		2	613		2	955
3	105		3	135		3	237
4	14		4	17		4	35
5	5		5	1		5	3
6	2		6	-		6	1
Total	2,572			2,876			3,863

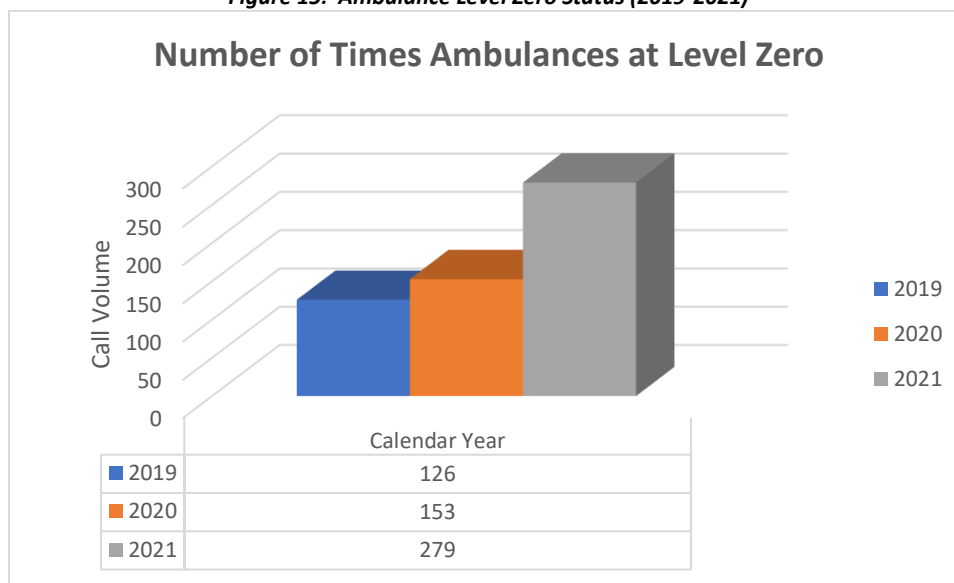
#### Ambulance – Level Zero Status

Standard of cover is significant to organizations who provide emergency response. Standard of cover studies evaluate in part the risk to a community and the capabilities of the district to meet its needs. For MIGCFD the greatest area of risk based on call volume and demographics is not having an ambulance available to respond and transport ill and injured patients. The below chart details a 3-year evaluation of the number of times that the district was at “level zero” status for ambulances. Level Zero is defined as a situation when all three ambulances are tied up on emergency calls leaving no ambulance available to handle a fourth or subsequent call. When this occurs, any additional call will need to be handled by a mutual aid ambulance.

The below chart depicts the number of times that the district was at Level Zero and an additional ambulance call was received. Although not all ambulance calls are time sensitive emergencies, the

prevalence of advanced life support calls (57.78%), coupled with the number of actual calls where an ambulance was not available, places the district in a position of relatively high-risk.

**Figure 15: Ambulance Level Zero Status (2019-2021)**



*\*\* The peak time ambulance, which went into service in July 2021 and was staffed 46.5% of the time, reduced the Level Zero number below what is shown in the above graph. Since this unit was not tracked specifically related to the Level Zero situation, no specific data was available. Best estimates of this unit's operation related to this situation is that the peak time ambulance reduced the number of instances when the district was at Level Zero status by <64 calls. Calculating this into the 2021 Level Zero numbers, the times the district is at Level Zero is still >200 times per year.*

## National Standards Compliance

Several national standards exist that can be used by Murrells Inlet – Garden City Fire District 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 the district. Due to the breadth of the standards, it is wise for the district 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, coupled with fiscal responsibility, is needed.

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 1710

NFPA has adopted two standards addressing fire department/district organization and operation:

- NFPA 1710 – Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by Career Fire Department
- NFPA 1720 – Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by Volunteer/Paid-On-Call Fire Departments.

If a fire department/district has 85% or greater career members (e.g., Murrells Inlet – Garden City Fire District) NFPA 1710 is applicable.

Chapter 5 of NFPA 1710 provides specific details on fire district service capabilities, staffing, deployment, and response times. It includes benchmarks for structural fire suppression, EMS, aircraft rescue and firefighting (ARFF), special operations, marine rescue and firefighting (MRFF), and wildland.

The district should not formally adopt NFPA 1710, but rather strive to meet as many of the standards as possible. The NFPA codes/standards have the effect of a double-edged sword. The district is not required to meet the standards but will most likely be judged against these standards as part of any litigation including investigations into a serious firefighter injury or a firefighter line-of-duty death.

NFPA 1710 is an incredibly valuable tool in that it applies the documented and proven science of fire behavior and emergency medicine to the basic resource requirements for effective fire and emergency service deployment. This application allows a community to determine if the resources allocated for the different types of fires, emergencies, medical calls, and other incidents are sufficient to effectively control the incident and protect lives and property.

The standard uses a task analysis model to determine the number of immediately deployable personnel needed based on an establish time objective of four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and/or eight minutes (480 seconds) or less for the deployment of the full first alarm assignment at a fire suppression incident. It also provides a compliance benchmark 90% of the time. The fire district is allowed an additional one minute (60 seconds) for turn out time. Turn out time is the time allowed for the firefighters to get to the apparatus and start responding to the incident.

Structural fire suppression standards are broken down based on the type of occupancy and the square footage:

- Single-family dwelling (2000 ft<sup>2</sup>)
- Open air strip shopping (13,000 – 196,000 ft<sup>2</sup>)
- Apartment (1200 ft<sup>2</sup> per unit constructed in a 3-story or garden apartment configuration)
- High-rise (the highest floor is 75' above grade)

Different deployment models are assigned for each of the above occupancies based on their level of risk and likely operational needs. Staffing numbers are then assigned along with time standards, beginning with call initiation, until all units have arrived on scene.

The below charts detail the NFPA 1710 task/role needs, along with staffing requirements, for fires in structures most applicable to district.

**Table 4: Task and Staffing Standards - Single Family Residential Structure Fire**

<b>Single-family dwelling (2,000 ft<sup>2</sup>)</b>	
<b>Task/Role</b>	<b>Staff Number Needed</b>
Dedicated incident commander	1
Pump operator with a dedicated water supply	1
Ability to establish and operate 2-handlines (attack and backup)	4
One support member for each attack and backup line to assist in stretching of hose lines, utility control, and forcible entry as necessary	2
Provision of at least one victim search and rescue team	2
Provision of at least one team to raise ground ladders and perform ventilation	2
If an aerial device is used in operations, one member is required to function as the aerial operator to maintain primary control of the aerial device at all times.	1
At a minimum, an initial rapid intervention crew (IRIC) assembled from the initial attack crew and, as the initial alarm response arrives, a full and sustained rapid intervention crew (RIC) established. (OSHA Respiratory Protection Standard; 29 CFR § 1910.134):	4
<b>Total staffing numbers required for compliance</b>	<b>16</b> *17 if aerial ladder is being used

\*When an incident escalates beyond an initial full alarm assignment, or when significant risk is present to the member due to the magnitude of the incident, the incident commander shall request an EMS crew consisting of a minimum of two members to provide treatment and transport for injured members and civilians.

In addition to staffing numbers based on tasks/roles, NFPA has also established response time parameters along with performance percentage indicators.

**Table 5: Response Time Standards - First Alarm**

<b>Response Time Standards – First Alarm Assignment</b>		
<b>Unit(s)</b>	<b>Time from Dispatch to Arrival</b>	<b>Performance Standard</b>
First Engine Company	240 sec. (4 minutes)	90% of the time
Second Engine Company	360 sec. (6 minutes)	90% of the time
Full Initial Alarm Assignment	480 sec. (8 minutes)	90% of the time

**Table 6: Task and Staffing Standards - Strip Shopping Center & Apartment Building**

<b>Open air strip shopping (13,000 – 196,000 ft<sup>2</sup>) and apartment (1200 ft<sup>2</sup> per unit constructed in a 3-story or garden apartment configuration)</b>	
<b>Task/Role</b>	<b>Staff Number Needed</b>
Establishment of incident command outside the hazard area for the overall coordination, direction, and safety of the initial full alarm assignment. This number includes the incident commander and a safety officer	2
Establishment of two uninterrupted water supplies with each supply line maintained by an operator	2
Establishment of an effective water flow application rate of 500 gallons per minute (GPM) from three handlines, each of which has a minimum flow rate of 150 GPM	6
One support member for each attack and backup line to assist in stretching of hose lines, utility control, and forcible entry as necessary	3
Provision of at least two victim search and rescue teams	4
Establishment of an initial medical care component capable of providing immediate on-scene emergency medical support and transport that provides rapid access to civilians or firefighters potentially needing medical treatment	2
Provision of at least two teams to raise ground ladders and perform ventilation	4
If an aerial device is used in operations, one member is required to function as the aerial operator to maintain primary control of the aerial device at all times.	1
At a minimum, an initial rapid intervention crew (IRIC) assembled from the initial attack crew and, as the initial alarm response arrives, a full and sustained rapid intervention crew (RIC) established. (OSHA Respiratory Protection Standard; 29 CFR § 1910.134):	4
<b>Total staffing numbers required for compliance</b>	<b>27</b> *28 if aerial ladder is being used

**Table 7: Response Time Standards - First Alarm at Strip Shopping Centers and Apartments**

<b>Response Time Standards – First Alarm Assignment</b>		
<b>Unit(s)</b>	<b>Time from Dispatch to Arrival</b>	<b>Performance Standard</b>
First Engine Company	240 sec. (4 minutes)	90% of the time

Second Engine Company	360 sec. (6 minutes)	90% of the time
Full Initial Alarm Assignment	610 sec. (10 minutes and 10 seconds)	90% of the time

#### *District Compliance / Non-compliance*

- **Full Shift Staffing:**
  - **Compliant:** If the district is operating with full shift staffing (i.e., 18 personnel on-duty) and no other overlapping calls are occurring, the district would be able to meet the standards of NFPA 1710 related to a single-family dwelling (2,000 ft<sup>2</sup>).
  - **Non-Compliant:** The district cannot meet the standard related to open air strip shopping (13,000 – 196,000 ft<sup>2</sup>) or an apartment building (1200 ft<sup>2</sup> per unit constructed in a 3-story or garden apartment configuration).
- **Minimum Shift Staffing:**
  - **Compliant w/exception:** When the department is operating at minimum staffing (i.e., 16 personnel on-duty) and no other overlapping calls are occurring, the district would be able to meet the standard for a single-family dwelling (2,000 ft<sup>2</sup>), except that an aerial ladder would not be able to be used. Not using an aerial ladder has a high probability of being problematic for the district based on the design, configuration, construction, and occupancy load of properties covered by the district.
  - **Non-Compliant:** The district cannot meet the standard related to open air strip shopping (13,000 – 196,000 ft<sup>2</sup>) or an apartment building (1200 ft<sup>2</sup> per unit constructed in a 3-story or garden apartment configuration).
- **Critical Shift Staffing**
  - **Non-Complaint:** The district cannot meet the standard related to a single-family dwelling (2,000 ft<sup>2</sup>).
  - **Non-Compliant:** The district cannot meet the standard related to open air strip shopping (13,000 – 196,000 ft<sup>2</sup>) or an apartment building (1200 ft<sup>2</sup> per unit constructed in a 3-story or garden apartment configuration).
- **Brown Out Staffing**
  - **Non-Complaint:** The district cannot meet the standard related to a single-family dwelling (2,000 ft<sup>2</sup>).
  - **Non-Compliant:** The district cannot meet the standard related to open air strip shopping (13,000 – 196,000 ft<sup>2</sup>) or an apartment building (1200 ft<sup>2</sup> per unit constructed in a 3-story or garden apartment configuration).

\*\*The above analysis is applicable only if no overlapping incidents are occurring at the same time as the structural fire response. With overlapping incidents exceeding 2,500 calls annually, it is highly unlikely that all personnel and companies will be available and able to respond. This makes the district's compliance with NFPA 1710 in any current staffing capacity almost zero.

### EMS Response under 1710

NFPA 1710 also requires fire departments/districts to provide a basic level of EMS response capabilities. At a minimum, a first responder trained member along with an Automatic External Defibrillator (AED) needs to be available on all responding apparatus/companies.

The district provides paramedic level – Advanced Life Support EMS which is the highest level of pre-hospital care available. The arrival time of Advanced Life Support care should be within 240 seconds (4-minutes) unless a first responder with an AED arrives within 240 seconds; in which case Advanced Life Support personnel have 480 seconds (8 minutes) to arrive and begin patient treatment.

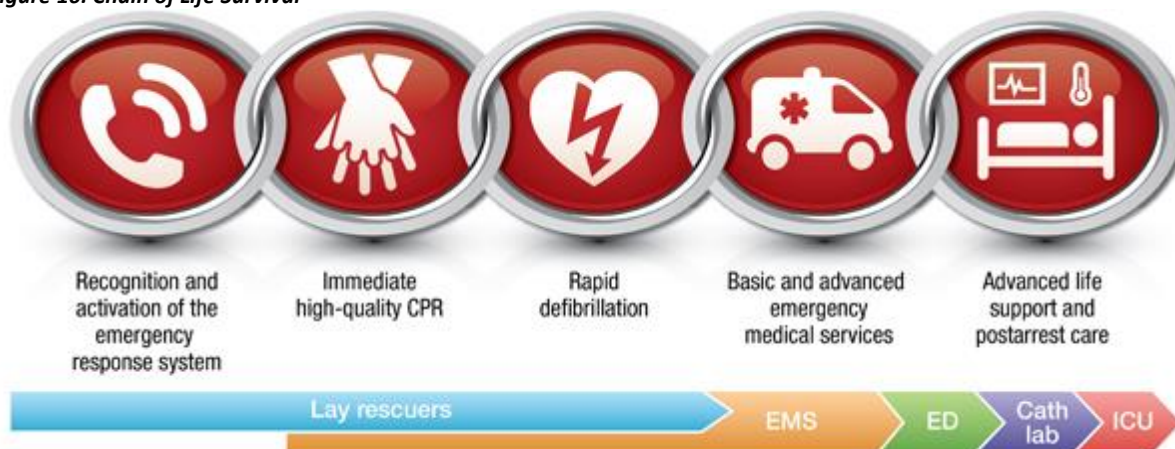
It is important to recognize that the American Heart Association has determined that the percentage of someone who is not breathing and has no pulse diminishes quickly after four minutes. As we recognize the value of the four-minute arrival time for a fire crew to a structure fire, we can also apply the four-minute response time goal for our first responding EMS crew.

**Table 8: Percentage of Survivability Based on Response Time (Source IAFF NFPA 1710 Implantation Guideline)**

Minutes	4	5	6	7	8	9	10	11	12	13	14	15
Survival	25.3%	23.2%	21.1%	20.0%	15.0%	14.3%	12.7%	10.0%	8.5%	6.4%	4.3%	2.2%

The American Heart Association has established the Chain of Life Survival as a visual example of the various aspects required to minimize death from sudden cardiac arrest.

**Figure 16: Chain of Life Survival**



Key aspects of the chain are detailed as:

- If EMS intervention or citizen cardiopulmonary resuscitation (CPR) is performed within the first 4 minutes, the patient survival rate is 45%; however, that number drops to 10.6% of patients discharged from hospital.



- Every minute without patient intervention for a non-breathing, non-heartbeat patient, the chances of survival decrease by 10%. Brain damage occurs within 4 to 6 minutes without patient intervention.
- If patient treatment (citizen CPR or EMS) is not provided within 10 minutes, the survival rate is close to zero.
- Citizen performing CPR prior to the arrival of EMS is the most critical component to patient survival.

*Source: American Heart Association*

#### *District Compliance / Non-compliance*

- **Compliant:** Based on the location of first responder equipped fire companies, along with district wide response times, NFPA 1710 is met related to EMS calls within the standard of 90%.

#### NFPA 1582

NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments/Districts, establishes the minimum “fitness for duty” medical standard required for firefighters to operate wearing personal protective equipment within an IDLH atmosphere. The district 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).

The district should make this standard applicable and require compliance with all department personnel regardless of rank or position including battalion chiefs, division chiefs, deputy chief and fire chief.

## 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 district review and update all Standard Operating Guidelines and policies related to the use and maintenance of SCBA.

It is also recommended that the district establish and enforce a “grooming policy” within the administrative policies requiring personnel to be clean shaven when on-duty 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 district 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)
  - Districts 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 district 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
  - District members who may respond and encounter 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 district review its annual training plan to ensure compliance with the 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 district's capability is determined and classified, the information is communicated to and possibly 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 9: 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 10: Source ISO™: Point Values**

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

### Murrells Inlet – Garden City Fire District – PPC Classification

In June of 2020, ISO evaluated and rated the district as a **Class 2**. The following chart provides a breakdown of awarded points for each classification leading to the assigned rating of Class 2.

**Table 11: Fire District's PPC Score**

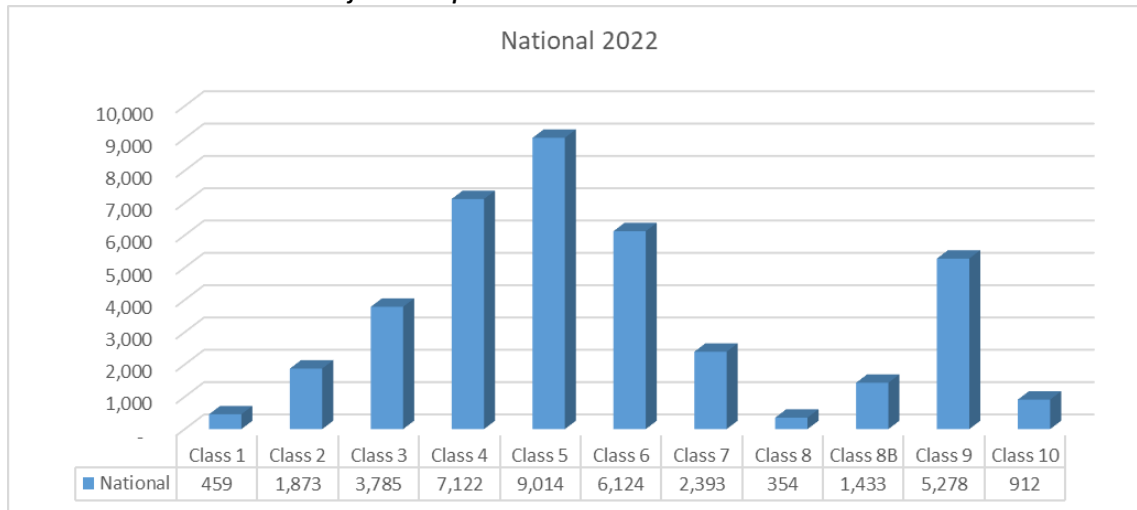
<b>Fire Protection Service Area</b>		
<b>FSRS Item</b>	<b>Credit Earned</b>	<b>Credit Available</b>
<b>Emergency Reporting</b>		
Credit for Emergency Reporting	3.00	3.00
Credit for Telecommunicators	4.00	4.00
Credit for Dispatch Circuits	3.00	3.00
<b>Credit for Receiving &amp; Handling Fire Alarms</b>	<b>10.00</b>	<b>10.00</b>
<b>Fire Department</b>		
Credit for Engine Companies	6.00	6.00
Credit for Reserve Pumpers	0.50	0.50
Credit for Pumper Capacity	3.00	3.00
Credit for Ladder Service	1.38	4.00
Credit for Reserve Ladder & Service Trucks	0.50	0.50
Credit for Deployment Analysis	6.46	10.00
Credit for Company Personnel	8.69	15.00
Credit for Training	8.27	9.00
Credit for Operational Considerations	2.00	2.00
<b>Credit for Fire Department</b>	<b>36.80</b>	<b>50.00</b>
<b>Water Supply</b>		
Credit for Supply System	27.13	30.00
Credit for Hydrants	3.00	3.00
Credit for Inspection & Flow Testing	6.93	7.00
<b>Credit for Water Supply</b>	<b>37.06</b>	<b>40.00</b>
<b>Divergence</b>	<b>-3.81</b>	
<b>Community Risk Reduction</b>	<b>5.28</b>	<b>5.50</b>
<b>Total Credit</b>	<b>85.33</b>	<b>105.50</b>
<i>ISO = 02/2X June 2020</i>		

The greatest area of weakness is in the category of firefighter staffing. In this category, the district only received 8.69 points out of a possible 15. This is by far the rating category with the most divergence from the maximum available points. Applicable also is credit for deployment, which is also impacted by staffing and overlapping incidents/district response reliability.

## Comparability of District to Other Rated Departments/Districts

In 2022, there are 38,747 rated departments/districts.

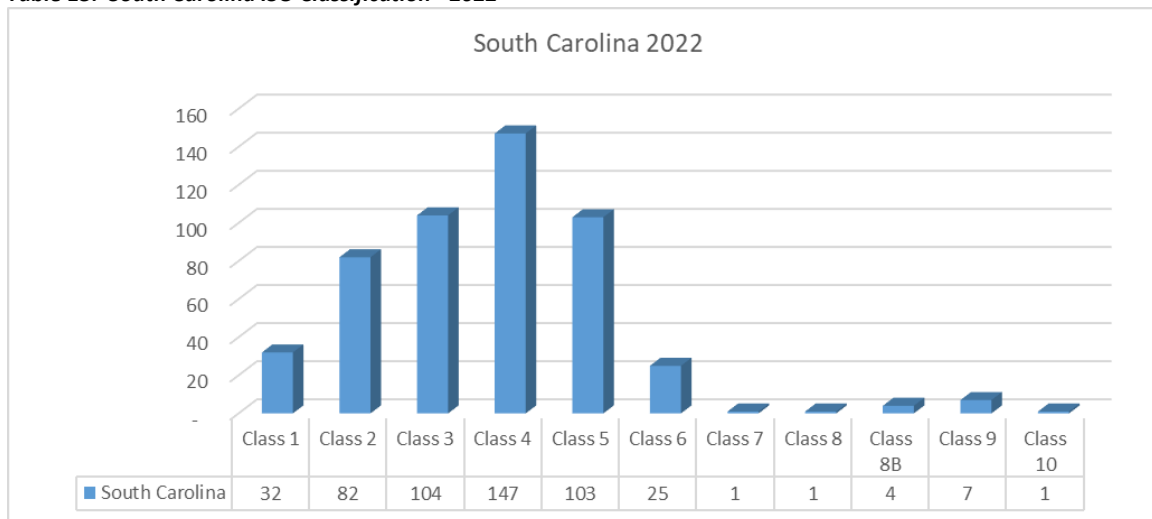
**Table 12: Source ISO™: Number of Rated Departments**



Nationwide, there were only 1,873 departments/districts with a PPC classification of Class 2.

In the state of South Carolina, 1,795 departments/districts had received an ISO PPC score. Only 82 are rated with a PPC classification of Class 2.

**Table 13: South Carolina ISO Classification - 2022**



## Applicability of ISO Rating

It is important to note what the ISO rating means to the Fire District. The purpose of ISO is to determine a fire insurance classification, which may be used in the calculation of property insurance premiums. Until recently, no credit was given for preventive measures such as property loss prevention, life safety, and

property hazard inspection. Most insurance companies use the ISO rating as a benchmark and then use market data to establish competitive rates for residential properties.

Moreover, about 90% of the insurance companies will group Classes 1 – 4 together, and then look separately at Class 5, Class 6, Class 7, and so on. In essence, the ISO rating is only one factor in establishing premiums and certainly not the primary one. It is this perceived link to insurance rates that for years has driven communities to base their decisions on the level of fire protection appropriate for their community, based upon ISO standards. A more advantageous method for assessing a fire/rescue/EMS district is discussed in the heading of Center for Public Safety Excellence.

### *Center for Public Safety Excellence (CPSE)*

#### Non-mandatory

A better fire district 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 districts that pass the stringent criteria. The criteria use more than 250 performance indicators, including 70+ core competencies.

The accreditation process requires districts 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 district should provide. The accreditation process also involves a level of community outreach where the residents and businesses are asked their opinion whether emergency service protection is appropriate, adequate, and effective. The advantage to the accreditation program lies in the process itself. The district is required to examine every aspect of its operation and determine its effectiveness in meeting the community's needs.

The district should establish CPSE accreditation as a long-range goal.

### *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.

The district should establish CAAS accreditation as a long-range goal.



## Communications/PSAP/Dispatch

Since the district resides in two counties, each county operates a separate PSAP/Dispatch Center. The district's primary dispatch center is Georgetown County. Neither county charges the district for dispatch/communication services. Telecommunicator staffing levels are as follows:

Georgetown: Maximum 5 / Minimum 4  
Horry: Maximum 16 / Minimum 10

Important to note is that during the most recent ISO inspection/rating for the district, the communication aspect received the maximum number of available points. The communication aspect of ISO includes a compilation of technology, staffing, and compliance with standards related to call process and telecommunicator training. It is challenging for communication centers to maximize all available points. Both centers should be commended for receiving such an excellent score which helped to obtain the district's rating classification of Class 2.

**Figure 17: ISO Points Related to Dispatch**

	Available Points	Awarded Points
<b>Credit for Emergency Reporting</b>	3.00	3.00
<b>Credit for Telecommunicators</b>	4.00	4.00
<b>Credit for Dispatch Circuits</b>	3.00	3.00
<b>Credit for Receiving and Handling Fire Alarms</b>	<b>10.00</b>	<b>10.00</b>

### Location of Dispatch Centers

Georgetown County  
Georgetown County Sheriff's Office Central Dispatch  
2222-C Highmarket Street  
Georgetown, South Carolina, 29440

Horry County  
Horry County Dispatch  
103 Elm Street  
Conway, South Carolina, 29526

### Call Routing

9-1-1 calls (landline and cell phone) are answered by each respective county. Calls occurring within Horry County will be transferred to Georgetown for dispatch of district assets. Horry County does alert the district on EMS related calls which speeds the overall time of dispatch. This two dispatch center model

forces personnel to listen to multiple radio frequencies and to carry multiple pagers. This scenario is taxing to on-duty personnel, but the benefit is faster notification times which is especially significant related to EMS incidents.

This two-county dispatch model/procedure as managed by Horry and Georgetown Counties is a common practice used in both North and South Carolina. As an example, an identical model is used between Forsyth and Stokes Counties in North Carolina.

## 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 are 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. Both dispatch centers provide EMD as appropriate.

## Response Time

Providing emergency services is often about response times. How long it takes for a fire district or emergency medical responder to get on location to begin to mitigate the fire or provide emergency medical service is the primary issue. An acceptable response time is subjective depending on if you are the one in need or not. When a citizen makes a call to 9-1-1 for an ambulance or fire, every second seems like minutes and their anxiety will disproportionately increase as the severity of the incident worsens.

### [NFPA 1221](#)

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 (NFPA 1221 - Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems)

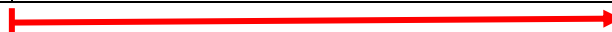
Although each has their specific areas of focus, all agree on a standard template related to call processing. This is important since NFPA 1710 establishes several benchmarks for response times that have a direct tie to quality customer service. These benchmarks only work if call processing times are held to a strict standard of emergency responder notification.

**Table 14: 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	95% of the time

**Table 15: Emergency Call Processing Flowchart**

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



Fire district response times for first-due units and for the total effective response force provide valuable information for resource allocation decisions such as fire station location, apparatus deployment, and crew size/staffing levels.

#### Response Time Components

When examining response times, it is essential that all parties are talking about the same response time components. The actual measurement of response time must include the understanding of all the following components of response time:

- **Detection Time:** The time it takes to detect the emergency incident and dial 9-1-1.
- **Notification Time:** The time from when the call is received by dispatch (PSAP) to the time the district is notified.
- **Turnout Time (Out the Door Time):** The time it takes personnel to prepare and leave quarters after notification.
- **Travel Time:** The time the first apparatus/ambulance leaves the station to the time it arrives on the scene. (The term travel time ends when the unit arrives on location of the emergency)

- **Mitigation Time:** The time the first apparatus arrives at the scene to the time when actual extinguishing/treatment (mitigation) efforts begin.

#### Fire & EMS District Control or Response Times:

- Turnout Time / Out the Door Time – (*NFPA 1710 – 2020 edition – section 4.1.2.1: shall not exceed 60 seconds for EMS and 80 seconds for fire and special operations*) the time from when the fire district is notified by dispatch until the first mitigation unit leaves the station or begins their response
- Travel Time – (*NFPA 1710 – 2020 edition*) – *section 4.1.2.1(3): 240 seconds (4 minutes)* arrival of first engine company at a fire suppression incident
- Travel Time – (*NFPA 1710 – 2020 edition*) – *section 4.1.2.1(7): 240 seconds (4 minutes)* arrival of first responder with automatic external defibrillator (AED)
  - Travel Time – (*NFPA 1710 – 2020 edition*) – *section 4.1.2.1(7): 480 seconds (8 minutes)* arrival of advance life support (ALS) provided a first responder meets the 240 seconds (4 minutes) arrival

#### Turnout Time (Out the Door)

**Turnout Time** – The time it takes personnel to prepare and leave quarters after notification. This factor of total response time is completely within the control of the fire district assuming they record and utilize the information in the management of the organization. Under NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Districts which, is the standard, requires a turnout time of 60 seconds maximum for EMS calls and 80 seconds for fire/special operations response calls (2020 edition) Chapter 4 – 4.1.2.1

The issue with the Murrells Inlet-Garden City Fire District is that 54.1% of the turnout times provided indicated that no time (0:00:00) times elapsed from when the PSAP = Public Safety Answering Point (aka: dispatch) notified the fire district to when the on-duty crew was able to staff the apparatus and respond (out the door). The reason for the 0:00:00 turnout time is that Horry County PSAP will transfer fire calls to Georgetown PSAP but not EMS calls. Rather Horry County will call the Fire District directly and inform them of the nature and location of the EMS incident. The on-duty crew will respond and as they leave the station notify Georgetown PSAP of the incident who time stamps the dispatch time and turnout time to the same time 0:00:00.

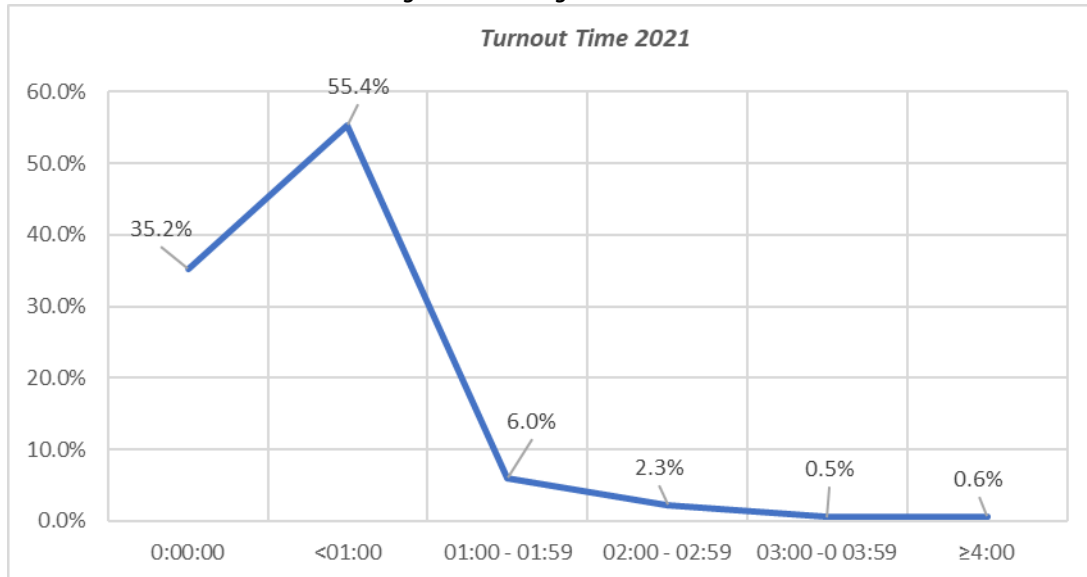
Therefore, to establish a turnout time for the Fire District the consultants must remove all the 0:00:00 (54.1%) and use the turnout times from Georgetown PSAP. The table below illustrates the turnout times from 0:00:01 to 0:03:59. Those time that were equal to 0:04:00 or greater were removed as outliers, which are unusual circumstances as illustrated in the table below:

**Table 16: Average Turnout Time - 2021**

2021
Average Turnout Time
0.00.47

An average turnout time (out the door) of 47 seconds is excellent and far exceeds the NFPA 1710 standard of 60 seconds for EMS and 80 seconds for fire.

**Figure 18: Average Turnout Time**



## Training

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

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

Fire departments/districts have become full-service organizations handling needs far beyond responding to just fires. Departments/districts must be “all-hazard” response agencies, which require 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 MIGCFD 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 and EMS.

Many fire service experts hold the common belief that no single activity in a fire district is as important as their training and preparedness. How individuals train, how often they train, and the quality of such training is directly reflected in the way a firefighter performs during very difficult emotional and physical emergency situations and conditions. Training is therefore often considered the backbone of emergency operations since it produces a well-prepared force that through repetition increases the speed of an operation and enhances proper execution while reducing injuries. It must also be noted that documentation of the training is an essential part of the training process.

### Training/Documentation

With an increasingly litigious society, the liability associated with poor training and/or poor documentation of that training is enormous. Within the last decade, there has been an increased tendency for municipalities/townships/districts to be stripped of their immunity protection when dealing with an employee’s injury or death. At a minimum, the training records of the employee(s) would be scrutinized to determine whether they had been trained to address the situation that had led to their injury or death. The district would need to provide the investigating agencies with the following:

- Documentation that the individual received training in the evolution(s) in which the death/injury occurred
- Comprehensive written curriculum and lesson plan of the training topic
- Attendance sheet with the individual’s signature indicating he/she attended – not a list of member’s names with a check-off box
- Record of the instructor’s qualifications to teach the topic
- Competency documentation showing how the district measured the ability of the individual to safely perform the task in which he or she was injured

- Historical record showing how frequently this topic was instructed and what other topics supported a safe environment under the conditions found at the accident scene

## 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 also requires validation of their competency to do so. A well-constructed training program will employ a system to ensure all members receive the required training, while evaluating and documenting their core competencies. Records of the testing should become part of the individual's training record. These records of testing are commonly referred to as Job Performance Requirements (JPRs). Standard Operating Guidelines (SOGs) focus on emergency incident operations, while job performance requirements (JPRs) focus on skills needed to carry out the functions called for in the SOGs.

### NFPA Job Performance Requirements (JPR)

Governing bodies are not required to adopt the NFPA codes; whereas many view the NFPA terms, codes, and standards as a benchmark by which to judge against. Training drill records should indicate which NFPA JPR were covered in a particular drill or training activity. Most fire service records management systems have simple ways to correlate training objectives with NFPA JPRs. NFPA provides standards on training in various fireground activities which are followed by the Murrells Inlet-Garden City Training Division:

- NFPA 1002-Standard for Apparatus Driver Operator
- NFPA 1021-Standard for Fire Officer
- NFPA 1041-Standard for Fire Instructor
- NFPA 1401-Recommended Practice for Fire Service Training Reports and Records
- NFPA 1403- Standard on Live Fire Training Evolutions
- NFPA 1404- Standard for Fire Service Respiratory Protection Training
- NFPA 1407- Standard for Training Fire Service Rapid Intervention Crews
- NFPA 1410- Standard on Training for Emergency Scene Operations
- NFPA 1451- Standard for a Fire and Emergency Service Vehicle Operations Training Program

### 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/volunteer/part-time 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.

**Figure 19: ISO Training Requirements**

<b>ISO Fire Training Requirements</b>	
<b>Topic</b>	<b>Hours</b>
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

During the district's last ISO™ evaluation 8.27 points out of a possible 9.00 were awarded. This is an excellent score, and the district should be commended for holding the organization to such a high standard.

### ***Monthly Fire Training***

The district develops the monthly training schedule based on requirements from both ISO and select NFPA standards. The Division Chief of Training provides department instructors with the objective and lesson plan for all topics. This ensures consistency in training between the shifts. It is the responsibility of each battalion chief to ensure training is completed.

The Division Chief of Training monitors presentations and drills as needed, and reviews all submitted training records. Training records are maintained through Target Solutions™ including employee certification records and skill competencies/JPRs. Records for all outside training is also logged into the Target Solutions™ system.

The following chart indicates the annual average number of training hours per member per shift. COVID restrictions have negatively impacted training in both 2020 and 2021. The district is making every attempt to increase the total training hours in 2022. For the first 5-months of 2022, the district appears to be on track to exceed the total number of hours for the past two years.



**Figure 20: Average Annual Training Hours Per Shift**

Average Annual Training Hours per Member by Shift			
Shift	2020	2021	2022 (first 5-months)
A	140	218	161
B	169	176	90
C	154	154	110

A challenge related to completion of shift training is the overall heavy call volume of the district. This is compounded by the district's limited staffing. Department members work hard to accomplish their required training, while still managing the calls. This combined workload significantly impacts the overall fatigue of the members. Physical and mental fatigue leads to firefighter injuries. During consultant interviews with district staff, the topic of fatigue was raised by several staff members citing a combination of call volume, training, and overtime as a concern.

### Probationary Firefighter Training

The Murrells Inlet-Garden City Fire District has developed a comprehensive program for the training of new members. The district utilizes a 40-step training manual that contains a training module as well as associated competency testing on each district required subject. Each of the various firefighting/rescue topics must be mastered by the firefighter and upon successfully doing so, be signed off on by a training instructor and the new employee's Battalion Chief. This training is conducted on-shift and requires a minimum of 6-12 months to complete. Probationary firefighters are not allowed to complete probation until all training and the associated skill evaluations have been completed and passed.

### Driver Training

More civilians are injured in crashes with emergency vehicles than are injured in home fires. The driving of district vehicles, both non-emergency-everyday driving, as well as under emergency conditions (lights and sirens), is a routine part of providing services, but it is also one of the most important. Driving any emergency vehicle is generally considered a "routine" duty, but driving district owned staff vehicles or small, medium, and large trucks does carry a higher degree of risk and liability.

The State of South Carolina requires a "Class E" license for the operation of fire apparatus. The State requires driver testing, which is completed by the district under the Authority Having Jurisdiction (AHJ) standards of third-party testing. In addition to third-party testing, all members of the district are required to complete the 4-hour VFIS/Emergency Vehicle Operators Certification (EVOC) course and perform 12-hours of annual drivers training. The Division Chief of Training, along with two other district instructors, are certified to conduct this training.

## National Incident Management System (NIMS) Training

The National Incident Management System (NIMS) under the Federal Emergency Management Agency (FEMA) is a collection of principles and methods that can be utilized by local, state, and federal emergency managers, as well as the private sector. A basic premise of NIMS is that all incidents begin and end locally, with the focus being to improve the nation's overall response to emergencies. The NIMS model does not take command away from state and local authorities, but rather provides a framework to enhance the ability of responders to work together more effectively. Large-scale national disasters in the past have suffered from a lack of coordination, authority, and a universally accepted plan to organize and mitigate such events. To that end, FEMA developed the National Incident Management System. The system incorporates several available “on-line training classes.” Those most applicable to district staff are:

- ICS-100: Introduction to the Incident Command System: interactive web-based course
- ICS-200: Basic Incident Command System for Initial Response: interactive web-based course
- ICS-300 Intermediate ICS for Expanding Incidents: 24-hour classroom based
- ICS-400: Advanced ICS for Command and General Staff: 24-hour classroom based
- ICS-700a: National Incident Management System: an introduction
- ICS-800b: National Response Framework: an introduction

The NIMS ICS 300 course is required under the “Homeland Security Presidential Directive (HSPD-5)”. Based on the ICS role, district officers who serve as Incident Commanders are mandated to complete this training. The training is designed to enhance coordination, compatibility, and safety on emergency scenes as well to receive federal funding, grants, training, and reimbursement of disaster recovery cost. A review of district certification records indicated that all district officers have completed each of these required NIMS training certifications.

## EMS Division Training

At the time of this writing, the district employed 30-certified/licensed paramedics and 24-Emergency Medical Technicians – Basic. All Paramedics and EMT’s are both Nationally and South Carolina certified. Training is available for certification/licensure for EMT’s and Paramedics, as well as advanced EMS coursework through the Horry Georgetown Technical College.

Oversite of the districts EMS Paramedic Program is provided through the Waccamaw Community Hospital in Murrells Inlet under the direction of Medical Director Dr. Scott Coradi.

Continuing education hours are provided “in-house” under the direction and supervision of the Division Chief of EMS. This includes courses such as Advanced Cardiac Life Support (ACLS), Pre-hospital Trauma Life Support (PHTLS), Pediatric Advanced Life Support (PALS), and others.

## Safety Officer

The Division Chief of Training serves as the District's Safety Officer. The safety officer reviews current safety policies and procedures, conducts district safety training, as well as responds to major incidents to act as the incident safety officer. All twelve shift officers and many of the acting officers are certified as NFPA 1521 Incident Safety Officers. Under the safety officer standard, the officer functioning in that capacity must be dressed and able to function to the level of the incident. Currently the district does not require chief level officers to complete the annual physical ability testing to be qualified to wear SCBA. It is the consultant's recommendation that any officer serving in an incident safety officer role be required to take and pass the physical ability test along with the NFPA 1582 medical exam.

## Training Facility

**Figure 21: Photo of 4-Story Training Tower – Side A**



The training facility located at the Headquarters Station has a wide array of very useable-hands-on buildings, structures, and props.

Four-story Training Tower constructed from treated wood and timber is utilized for numerous fire/EMS evolutions including but not limited to: hose advancement, ventilation, search and rescue, laddering, rappelling, roof penetration, confined space exercises, high-angle rescue operations, aerial operations, etc.

**Figure 22: Photo of 4-Story Training Tower - Side C**



This structure is constructed from metal (repurposed shipping containers) and allows for live-fire training drills.

**Figure 23: Live-fire Training Prop**



**Figure 24: SCBA Drill Prop**



The training trailer is used primarily for smoke maze drills. This structure also includes props for Rapid Intervention Team (RIC) training that focuses on rescuing trapped or downed firefighters.

**Figure 25: Propane Drill Prop**



Liquid propane gas (LPG) is stored as a liquid and converted to a gaseous state for use. Fighting LPG fires is different from normal firefighting in that large quantities of water are needed for cooling the container, while taking steps to stop the leak.

## Officer Development Training

Although the training division was rated extremely well in the most recent ISO evaluation, there is strong evidence that more focus is needed on officer development training specifically in the areas of soft skills/employee management skills. Officers appear to be competent in emergency response, but based on information gleaned during interviews, district officers have limited or no training on numerous HR related issues. Topics such as team building, team communication, team vision casting, employee coaching, employee career development, conflict resolution, conducting internal investigations, employee discipline, how to conduct employee performance evaluations, harassment, harassment prevention, employee hazing, stopping of employee hazing, sexual harassment, and many more topics need to be addressed. District officers are extremely weak in these soft skills of employee management.

In addition to employee management/soft skill development, emergency incident leadership training needs to be part of the officer development training program. This training needs to concentrate on incident tactics and strategies with a focus on implementation of best practices and scientific research.

Training should include cognitive as well as psychomotor knowledge and skill development including skill evaluation and testing.

It is highly recommended that the district institute a broad range multi-year training plan designed to address these areas to strengthen officer skill sets.

## Succession Planning

Along with officer development training, the district needs to focus attention on succession planning. Succession, by its nature, focuses on a line of progression designed to pass the torch of responsibility to those next in line. The fire service works hard at developing the abilities of underlings to receive the torch and learn to manage emergency incidents, but frequently falls short in developing organizational leadership skills so these employees can lead the organization into the future.

One of the first steps in a successful succession planning process is understanding the current situation related to employee tenure and their desire for future leadership responsibilities. It is important for district leadership to continually assess the abilities of staff related to future leadership roles, but it is equally important to determine the long-term goals of individuals employed by the district. Conducting this analysis involves one-on-one discussions and career development planning.

This issue of succession planning and officer development training has recently exhibited itself in the fact that the district has lieutenant openings that are being filled by “acting lieutenants” because candidates did not pass the most recent promotional exam. It was also identified through employee interviews that employees are not interested in promotional opportunities and therefore do not prepare or do not take the promotional examination. Whether this is an organizational cultural issue, a morale issue, a fatigue factor based on the heavy call volume and overtime workload, or something else, this issue needs to be addressed to maintain long range organizational stability and quality. It also highlights the need for additional officer development training focused on preparing the future leaders of the district.

The following worksheet provides a basic planning tool for tracking the current situation and identifying potential challenges based on current employee tenure and development. It is recommended that the district assess the current situation related to succession planning and begin building a model for employee development to ensure the future stability and long-term progression of the organization.

**Figure 26: Succession Planning Worksheet**

Succession Planning Worksheet												
Position Title	Incumbent Name	Hire Date	Date Promoted to Current Rank	Pensionable Years of Service	Age	Retirement Status	Number of Staff on Current Promotional List	Criticality Rating	Number of Replacement Staff Ready Now	Number of Staff Ready in 1-2 Years	Employee Succession Planning Priority	Action Steps
Fire Chief												
Deputy Fire Chief												
Division Chief of Training												
Division Chief of EMS												
Fire Marshal												
Battalion Chief												
Battalion Chief												
Battalion Chief												
Captain												
Captain												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
Lieutenant												
<b>Retirement Status:</b>				<b>Succession Planning Priority:</b>				<b>Criticality:</b>				
A = Retirement likely within 1 Year				High		1		1 = Must "hit the ground running"				
B = Retirement likely within 3 Years				Moderate		2		2 = Must be fully functional within 6 months				
C = Retirement likely within 5 Years				Low		3						
				Will not promote further		0						



## Fire Marshal Division

Two major elements which assist in making a community a safer place to live, work, and visit are that of fire prevention and public safety education. These elements also have a significant impact on firefighter safety.

The Prevention / Education Division of the District consists of two personnel:

- Fire Marshall
- Deputy Fire Marshall

Duties include:

- Conducting all fire prevention inspections of commercial occupancies
- Conduct plan reviews for code compliance
- Conduct or direct all public education programs
- Oversee the pre-incident planning program
- Oversee and or conduct fire cause and origin investigations
- Manager invoicing for fire prevention activities

## Fire Prevention

The Fire Prevention Division has approximately 1400 inspectable occupancies within the district. These occupancies include general business, restaurant/bars, public assembly, mercantile, motels, apartments, marinas/fuel docks, 6 miles of oceanfront shoreline and associated waterways, and Condo/Multi-family residences. The division attempts to inspect each occupancy annually. Fire Codes currently utilized and enforced are the 2018 International Code Council (ICC) Building and Fire Codes. This will be moving to the 2021 ICC codes with South Carolina amendments in the near future. Local amendments to the code are prohibited under South Carolina rules.

The district charges a fee for each annual inspection conducted. This fee is based on the square footage of an occupancy and ranges from \$75.00 (occupancies up to 999 square feet) to \$300.00 for occupancies 50,000 square feet or more. There is no charge for a 2nd visit to conduct a re-inspection to assure compliance for any noted violations. Any further re-inspections will result in a \$100.00 charge per visit. All inspection fees are billed through Fire Recovery USA, Inc. which is the third-party contractual billing company used by the district.

When conducting code compliance plan reviews, the division works closely with the respective county building inspection offices. The division conducts reviews of new and remodeled construction, fire detection/sprinkler protection systems, hazardous materials occupancies, as well as any other special occupancies. A fee structure for plan reviews is utilized based on size and type of occupancy and billed through the third-party vendor.



The consultants are not clear as it relates to the overall authority of the district related to plan review code compliance, including recommendations for changes based on local impact to district operations and emergency response. Lingering questions related to this issue include:

- If the district is conducting a plan review while the respective county is simultaneously doing a code compliance plan review, this appears to be duplication of work.
- If the plan review is being conducted for the purpose of suggesting changes based on district needs, with enforcement taking place under the jurisdiction of the county, this makes sense, but the consultants question how often changes are actually made.
- How often does the division conduct training with the operational personnel to keep them abreast of new construction and/or occupancy changes within building units.

\*\*At the time of this audit, the consultants were advised that inspection records have not yet been migrated from Firehouse Software® to ESO Solutions® and therefore data analysis and the development of visual graphs like seen in other areas of this report are not available. Inspections are currently back to a “pen and paper” scenario until the migration is complete.

## Pre-Incident Plan

Pre-incident planning is designed to provide responding and on-scene personnel with up-to-date information needed for select occupancies to assist in emergency incident mitigation. Information such as occupancy construction features the presence of special hazards, emergency shutoff locations for utilities, fire alarm/sprinkler system information, etc.

NFPA 1620 – The Standard for Pre-Incident Planning provides guidance for creating pre-incident plans:

- Exact location – address
- Owner/keyholder contact information
- Specific occupancy information
- Access points
- Special hazards/hazardous materials on site
- Type of construction (Presence of lightweight trusses/roof construction considerations)
- Available water supply
- Fire alarm/sprinkler system information and shutoff location
- Exposure hazards
- Technical rescue concerns
- Any special considerations

This information is available to responding personnel using the District’s Active 911 app on cell phones and tablets. This app system is maintained by the division.

## Public Safety Education

Public education, especially to children and the senior population, is a focus area for the district.

- Public safety events – EMS and fire presence / standby
- Smoke detector install program
- Social media
- School visits
- Fire station open house / safety day
- Fire prevention week activities
- Big-box store activities with emphasis on smoke detector safety
- Holiday public events

## Fire Investigations

The South Carolina Code of Laws places responsibility for cause and origin investigation under the authority of the State Fire Marshal. CHAPTER 9, Article 1, SECTION 23-9-30 of the code applicable to the State Fire Marshal provides delegation authority to “Resident Fire Marshals” who have authority to act under authority of State Fire Marshal. It specifically calls out in subsections:

- a) The chief of any organized fire department or county fire marshal is ex officio resident fire marshal.
- b) All powers and duties vested in the State Fire Marshal may be exercised or discharged by any deputy state fire marshal, county fire marshal, or resident fire marshal within the area of his service, or any state or local governmental employee certified by the State Fire Marshal whose duties include inspection and enforcement of state or local fire safety codes and standards, acting under the authority of the State Fire Marshal.

SECTION 23-9-40 of this same code calls out the duty of State Fire Marshal to enforce certain laws and ordinances.

It shall be the duty of the State Fire Marshal to enforce all laws and ordinances of the State, and the several counties, cities, and political subdivisions thereof, with reference to the following:

- f) Investigation of the cause, origin, and circumstances of fire.

Based on these sections of the South Carolina Code of Laws, responsibility for fire cause and origin is delegated to the fire chief who can assign as necessary individuals responsible to conduct this work. In the case of the district, this work is assigned to the Fire Marshal – Prevention Division.

The Fire Marshal is a certified Arson Investigator through the International Association of Arson Investigators (IAAI). The Deputy Fire Marshal is a Certified Fire Investigator Technician through the IAAI.

Additionally, each Battalion Chiefs holds certification as a Fire Investigator Technician. The technicians are authorized to conduct basic fire investigations.

The procedure used by the district is for the shift battalion chief to conduct the initial investigation and then request assistance from the division when necessary. The Fire Marshal or Deputy Fire Marshal responds to every confirmed fire that has traveled beyond the object of origin. If the fire is confined to a stove, HVAC unit, etc., the on-duty battalion chief will handle the investigation. At any time, if a certified battalion chief is not on duty or cannot conduct the investigation, the Fire Marshal or Deputy Fire Marshal will be called to respond.

The district has established a policy that all fire investigations shall follow the Scientific Method as outlined in NFPA 921 and will include a minimum of scene photographs and a completed MIGCFD Investigator Notes packet (**Appendix D**). Highlights of the policy are as follows:

- Interview statements are documented in the investigator notes packet. After each investigation, the completed investigator notes packet is scanned into a secure file on the Fire Marshal server and the paper copy is secured in a file cabinet.
- If during the fire investigation, there is any suspicion of an incendiary cause, the investigation shall be halted and the police agency having jurisdiction shall be notified to obtain a search warrant before the investigation is continued. Any evidence collected during such investigation will be collected and packaged by the on-scene fire investigator. An Evidence Transmittal Form will be filled out and the evidence will be transferred to the police agency on scene to be submitted to the South Carolina Law Enforcement Division lab for processing. If the police agency on scene is the South Carolina Law Enforcement Division, they will collect and process their own evidence.
- The fire district per policy will maintain control of the scene until the investigation is complete and all evidence collected. In non-suspicious fires with exigent circumstance, the district will have the person with lawful control of the property sign a consent form allowing reentry for investigative purposes.
- In the event of any fire that results in or has the potential to result in a fatality, the following persons and organizations are to be immediately notified:
  - The Fire Chief
  - Deputy Fire Chief
  - Local Law Enforcement
  - State Warning Point
  - The coroner will be notified if there is a confirmed fatality. In incidents of this nature the scene should be secured, and only essential operations carried out until the arrival of police. Exterior investigative measures will be allowed such as interviews, drawings, and exterior photographs. The coroner will make the notifications of next of kin.
- Redacted fire reports are provided to homeowners and their insurance companies. Other persons may request these reports through the FOIA process as outlined on the district's website.

**(Appendix E)**

### Investigation Data

Fire investigations, including the cause and origin, are tracked through ESO. During the last year, two fires were investigated that were considered arson/suspicious and video evidence was collected and preserved on the Fire Marshal's secured server. Since both fires were trash dumpsters, the police department having jurisdiction chose not to pursue the matter.

### Investigator Continuing Education

Training for the battalion chiefs is coordinated through the Fire Marshal's Office and each battalion chief is required to complete 40 hours of training per year. This includes online training through <https://www.cfitrainer.net/>

The Fire Marshal and Deputy Fire Marshal each attend various training conferences throughout the year as well as South Carolina International Association of Arson Investigator quarterly training and online training through <https://www.cfitrainer.net/>. The Fire Marshal and Deputy Fire Marshal each receive more than 60 hours per year of documented training.

The district's fire investigation program is well laid out with sound policies established. The district should consider training the Deputy Fire Marshal as a certified arson investigator (CFI). This will provide some additional depth and work as part of the overall succession planning process.

## Stations / Facilities

All four current fire stations are owned and operated by the district. A station previously used by the rescue squad has been willed to the county with a covenant that it be used to support purposes of the fire district.

### Fire Station 76



Station 76 serves as the headquarters station for the district. The station was built in 2000 and has a total of 14,580 square feet. The station is a one-story facility with a small mezzanine on the south side of the apparatus bay for storage. The building is non-combustible construction and is fully sprinklered. There is also a full alarm system and a dry powder system in the stove hood vent system. All systems are monitored by an outside agency. The station has a backup emergency generator powered by natural gas providing 100% power coverage to all areas of the station. The

station is compliant with the Americans with Disabilities Act. There are two eye wash stations located on the apparatus floor.

#### Administration

The administration portion of the building is 2,298.5 square feet and consists of the chief's office, the deputy chief's office, the administrative assistant's office, the fire marshals' offices, the EMS division chief's office, the training division chief's office, a station office, and two washrooms.

#### Apparatus Floor

The apparatus floor and associated rooms are 7,236 square feet, with another 1,344 square feet of storage on the mezzanine over the rooms off the south side of the apparatus floor. The rooms on the south side of the floor include space for the station generator, compressor, laundry, shop, and spare equipment room. The mezzanine level is used for EMS storage as well as general equipment storage.

The apparatus floor has four bays with a drive through design. All eight overhead doors are 14' high and 12.5' wide. All are operated by wall-mounted push buttons with remotes in the apparatus. The apparatus floor is heated with electric heat.

#### Emission Exhaust

There is no exhaust removal system or scrubbers to rid exhaust from the apparatus floor. Emission exhaust is a serious concern to all emergency personnel.

NFPA 1500 – Standard on Fire Department Occupational Safety and Health Program, Annex A, Section 10.1.5, requires that apparatus emission exhaust be limited to the lowest feasible concentration.

Both OSHA and the National Institute for Occupational Safety and Health (NIOSH) state that exhaust removal should be handled by a vehicle exhaust removal system.

Although noted under Station 76, none of the stations are equipped with an emission exhaust system. The consultants recommend that a 100% emission exhaust capture system be installed in each facility. This exhaust recovery system selected should attach directly to the exhaust pipe of the fire apparatus and will automatically disconnect as the vehicle exits the station. In addition, the stations should have ceiling-mounted air scrubbers to capture exhaust emitted from sources other than vehicles (e.g. power saws, generators, etc.).

It is further recommended that a policy be developed requiring the running of smaller gasoline/diesel fueled engines outside of the station whenever possible.

The station is equipped with an SCBA compressor. OSHA requires that SCBA compressors be equipped with an outside fresh air intake system. The current compressor configuration does not include this required air intake.

#### Living Quarters

The living quarters are 4,726 square feet in size. The living quarters include a kitchen, lounge, training room, bunk/locker room, a separate room used as a bunk room for the on-duty battalion chief, a company officer office, battalion chief's office, and four restrooms. There is also a workstation for entering reports located in the rear hallway between the company officer's office and the training room.

Staffed first response equipment consists of Truck 76, Medic 76, and the Battalion Chief. Many support and reserve apparatus are also housed at this facility.

#### Outside the Station



Fuel facilities with tanks for gasoline and diesel are installed under a free-standing, metal-roofed open air car port. Two tanks contain 500 gallons of gasoline each with a 1000-gallon capacity diesel tank.

A concrete pad area exists with an installed underground water tank that is used for pump testing. The pad is also an area used by the district's mechanic to park and work on apparatus.

## Fire Station 77



Station 77 is located on Azalea Avenue and is within feet of the Atlantic Ocean. It is well built but not hardened. During times of forecasted hurricanes, the station is vacated with the most vulnerable assets removed.

The station was built in 1990 and has a total square footage of 3,700 square feet, with 3 drive through single-deep bays. The living quarters are 2 stories, and the construction is non-combustible. The building has a full fire alarm system and a hood and duct dry powder system for the kitchen range. The kitchen has recently undergone some basic remodeling. The station is not equipped with a sprinkler system or emergency back-up generator. Heat is provided by electric ceiling heaters. There is an eye wash station on the apparatus floor.

### Living Quarters

The living quarters consist of a kitchen, dayroom, single use restroom, office, bunk/locker room, mechanical room, and laundry/storage room with an extra shower.

### Apparatus Floor

The apparatus floor has three bays, single deep, that are of drive through design. The area of the apparatus floor is 2,760 square feet. There are six overhead doors that are 14' high and 12.5' wide. All doors are controlled by both wall mounted button controls and vehicle remotes.

Staffed first response equipment are Engine 77 and Medic 77. Other support and reserve apparatus are also housed at this facility, including a jet ski used for water rescue and a police utility ATV.



## Station 78



The station was built in 2006. The building is a one-story frame and has a total area of 5,760 square feet. There is also a small shed off to the side of the property where the county sheriff stores equipment. The building is sprinklered per NFPA 13, fully alarmed, and has a monitored hood and duct dry powder system installed above the kitchen range. The station has a full facility, diesel-powered backup generator. The building is ADA compliant. The apparatus floor is heated with electric heating and has an eye wash station on the apparatus floor.

### [Living Quarters](#)

The living quarters consists of a kitchen, day room, bunk room, restroom/shower room, two offices, single use restroom, work room, electrical room, storage room, and utility room.

### [Apparatus Floor](#)

The apparatus floor has three drive through bays that are single deep. The size of the apparatus floor is 2,848 square feet. There are six overhead doors--front and rear. Doors are 14' high and 12.5' wide. They are controlled by wall-mounted switches and vehicle remotes.

Staffed first response equipment is Engine 78. Other support and reserve apparatus are also housed at this facility.



## Station 79



The station was built in 2006 and is of non-combustible construction. The station has an area of 6,150 square feet. The building is fully sprinkled, has a full fire alarm system, and a dry powder hood system in the kitchen over the range. All systems are monitored by an outside agency. The station has a propane fueled emergency generator. The station is ADA compliant. Electric heating is used for the apparatus bays, and there is an eye wash station on the apparatus floor.

### Living Quarters

The living quarters has an area of 2,490 square feet and consists of a kitchen, pantry, dining area, day room, bunk room/locker room, three restrooms/shower rooms, office, a screened in porch, EMS equipment storage room, electrical room, tool room, and laundry room.

### Apparatus Floor

The apparatus floor is 3,660 square feet in size with three single deep drive through bays. There are six overhead doors--front and rear. Doors are 14' high and 12.5' wide. They are controlled by wall-mounted switches and vehicle remotes. There is an eye wash station on the apparatus floor.

Staffed first response equipment are a Quint 79 and Medic 79. Other support and reserve apparatus are also housed at this facility.

## Rescue Station



The rescue station is located at 4475 Murrells Inlet Road. The building is now being used for storage and is in a state of disrepair. [REDACTED]

The consultants believe that this would be a sound location to build a modest Administration building including an Emergency Operating Center.

## Recommended Storage Building

The district operates a wide array of vehicles including front line, watercraft, call back/volunteer response apparatus, reserve vehicles, public education, weather related vehicles, trailers, etc. With two of the four stations being single deep stations, many of these vehicles and equipment are stored outside. In addition to the storage concern is the fact that apparatus and equipment maintenance occurs outside. Should a vehicle be down for more than a single day, the apparatus will sit unsecured outside until the mechanic can obtain the parts and complete the needed work. This outside storage and lack of a maintenance facility is not efficient, and the district should work to address this concern.

The consultants recommend that a storage building be built behind station 76. This building should have multiple bays for vehicle and equipment storage as well as a designated vehicle maintenance area with lifts appropriate to conduct maintenance on all district apparatus including the aerial units.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

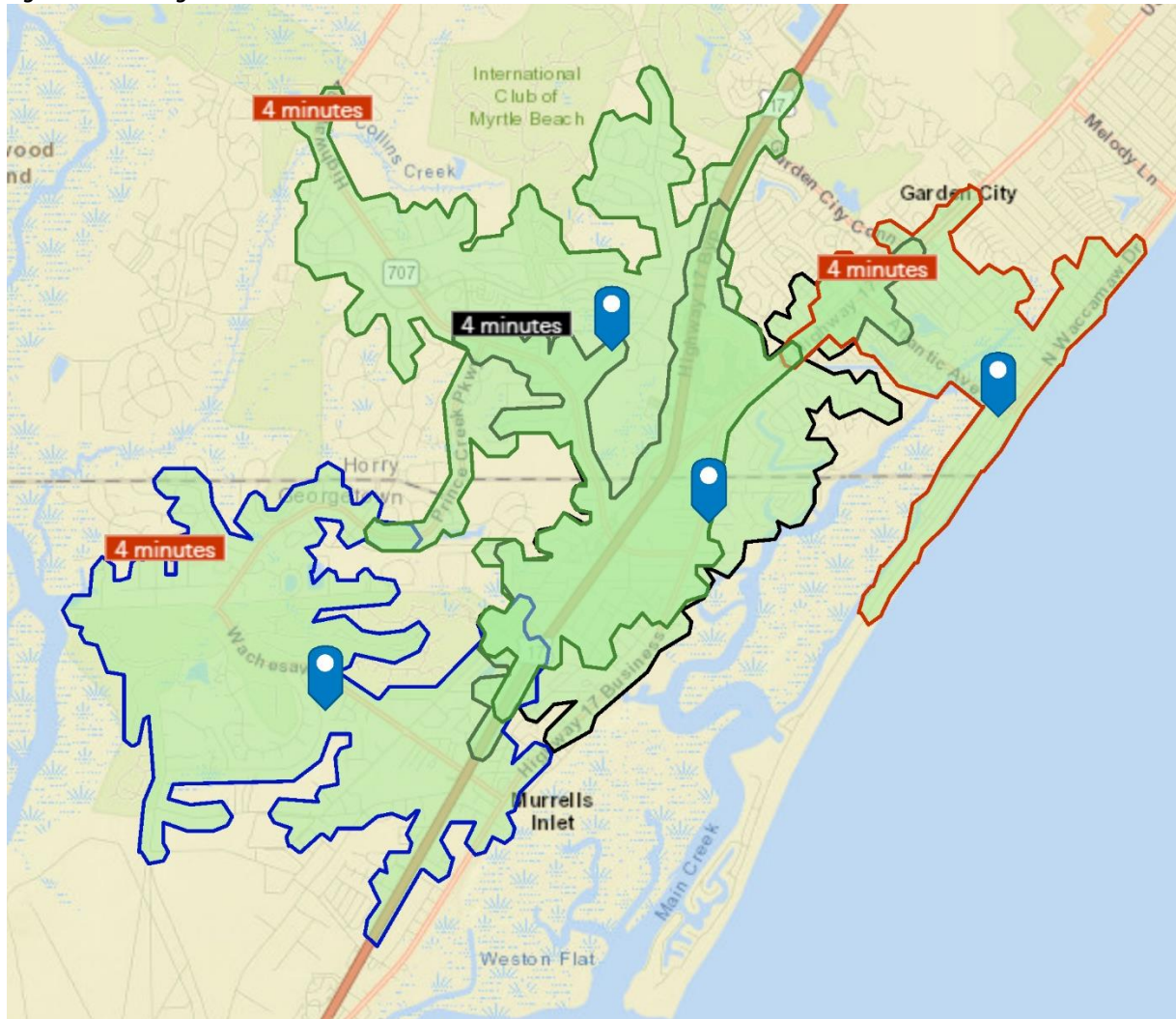
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Figure 28: Existing Fire Stations - 4 Minute Travel Times



[REDACTED]

[REDACTED]

[REDACTED]

***Figure 29: Existing and Proposed Fire Stations - 4 Minute Travel Times***



## Apparatus / Fleet

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 can influence reliability.

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 fit all. 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.

**Table 17: NFPA Recommendation for 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

MIGCFD operates a large fleet of apparatus, support vehicles, and rolling stock to address the numerous challenges of the district. Frontline apparatus includes engines, aerial apparatus, ambulances, command vehicles, and staff vehicles. Frontline apparatus needs to be backstopped by reserve apparatus that can operate as replacement units when the frontline apparatus is down for maintenance. Additionally, water

rescue is a primary need within the district requiring numerous types of watercrafts for the varying rescue situations encountered. Overall, the district is well equipped for the service demands faced.

The below chart provides a listing of district apparatus and current assignment. Usage categories are broken down as:

- Frontline: The primary response apparatus used by on-duty personnel
- Support: Used to support district operations in both an emergency and non-emergency capacity
- Special: Specialty apparatus (i.e., watercraft, trailers, high-water vehicles, etc.)
- Reserve: Replacement apparatus used to backstop frontline apparatus
- Public Education: No response capability

**Table 18: District Apparatus Listing and Assignment**

District Apparatus Listing									
Apparatus	Manufacturer	Apparatus Type	Year	Mileage	Hours	Pump	Tank	Foam	Assignment
<b>Administration</b>									
Chief 76	Dodge Durango	Fire Chief	2021	8,081	N/A	N/A	N/A	N/A	Haney
Chief 77	Dodge Durango	Deputy Fire Chief	2021	6,827	N/A	N/A	N/A	N/A	Kosto
Fire Marshal 76	Ford 150	Fire Marshal	2016	50,703	N/A	N/A	N/A	N/A	Zimpleman
Fire Marsh 77	Ford 150	Fire Marshal	2018	34,471	N/A	N/A	N/A	N/A	Sacra
EMS 76	Honda Pilot	EMS Division	2014	78,242	N/A	N/A	N/A	N/A	Owens
Training 76	Dodge Durango	Training Division	2022	1,500	N/A	N/A	N/A	N/A	Brown
Station Vehicle	Honda Pilot	Personnel transport	2015	52,318	N/A	N/A	N/A	N/A	Sta. 76
<b>Station 76</b>									
Battalion Chief	Dodge 2500	Command	2020	13,167	1,421	N/A	N/A	N/A	Front Line
Medic 78	Ford 650	Ambulance	2018	5,900	N/A	N/A	N/A	N/A	Front Line
Truck 76	Sutphin	100 tower quint	2006	6,086	3,577	2,000	300	N/A	Front Line
Utility 76	Dodge 2500	Utility	2021	6,470	335	N/A	N/A	N/A	Support
Air 76	Ford 550	Air cascade	2005	15,611	1,740	N/A	N/A	N/A	Support
IRB76	Inmar Inflatable	Boat	2021	N/A	N/A	N/A	N/A	N/A	Special
Utility 78	Polaris Ranger	Utility 4X4	2013	N/A	N/A	N/A	N/A	N/A	Special
Boat 79	Jon Boat	Boat	2017	N/A	15	N/A	N/A	N/A	Special
Boat 78	Carolina Skiff	Boat	2007	N/A	90	N/A	N/A	N/A	Special
Jon Boat Trailer	Load Rite	Trailer	2017	N/A	N/A	N/A	N/A	N/A	Special
Boat 78 trailer	Wesco	Trailer	2016	N/A	N/A	N/A	N/A	N/A	Special
Kaufman Trailer	Kaufman	Trailer	2021	N/A	N/A	N/A	N/A	N/A	Special
Boat 76	Safe Boat-Defender	Boat	2009	N/A	N/A	N/A	N/A	N/A	Special
Highwater 76	LMTV (Military Surplus)	High Water Vehicle	2009	N/A	N/A	N/A	N/A	N/A	Special
Reserve Ladder 76	E-One	75' Rearmount Aerial	2000	82,083	12,418	2,000	500	0	Reserve
Reserve Engine 79	Sutphen	Engine	2004	110,102	11,278	1,500	750	0	Training
Special operations trailer	Cargo Trailer	Special Events	2012	N/A	N/A	N/A	N/A	N/A	Support
Road King Trailer	utility trailer	general use	2011	N/A	N/A	N/A	N/A	N/A	Support
Public Ed Parade Engine			1993						Public Ed
Public Ed Antique Engine			1968						Public Ed
<b>Station 77</b>									
Medic 77	Dodge 5500	Ambulance	2022	956	8.46	N/A	N/A	N/A	Front Line
Engine 77	Sutphen	Engine	2013	81,989	7,664	1,500	980	20	Front Line
Utility 77	Polaris 4000G	4x4	2021	N/A	N/A	N/A	N/A	N/A	Special
Jet Ski 77	Jet Ski	Water Rescue	2019	N/A	N/A	N/A	N/A	N/A	Special
Highwater77	LMTV (Military Surplus)	High Water Vehicle	2009	N/A	N/A	N/A	N/A	N/A	Special
IRB 77	Inmar Inflatable	Boat	2021	N/A	N/A	N/A	N/A	N/A	Special
Jet Ski Trailer	EZLO Trailer	Move Jet Ski	2019	N/A	N/A	N/A	N/A	N/A	Special
<b>Station78</b>									
Engine 78	E-One	Engine	2015	53,017	4,523	1,500	980	20	Front Line
Reserve Medic 76	Ford 450	Ambulance	2000	99,557	109,381	N/A	N/A	N/A	Reserve
Medic 78	Ford 650	Ambulance	2014	137,323	N/A	N/A	N/A	N/A	Part-time
<b>Station 79</b>									
Ladder 79	E-One	75' Rearmount Aerial	2017	46,484	5,036	1,500	480	20	Front Line
Medic 79	Dodge 5500	Ambulance	2020	53,225	5,084	N/A	N/A	N/A	Front Line
Reserve Engine 76	Sutphen	Engine	2006	90,581	12,789	1,500	980	20	Reserve
Service 76	E-One	Brush truck ( Midi-Pumper)	2003	74,847	14,847	750	500	N/A	Special

 = Denotes Front Line Unit



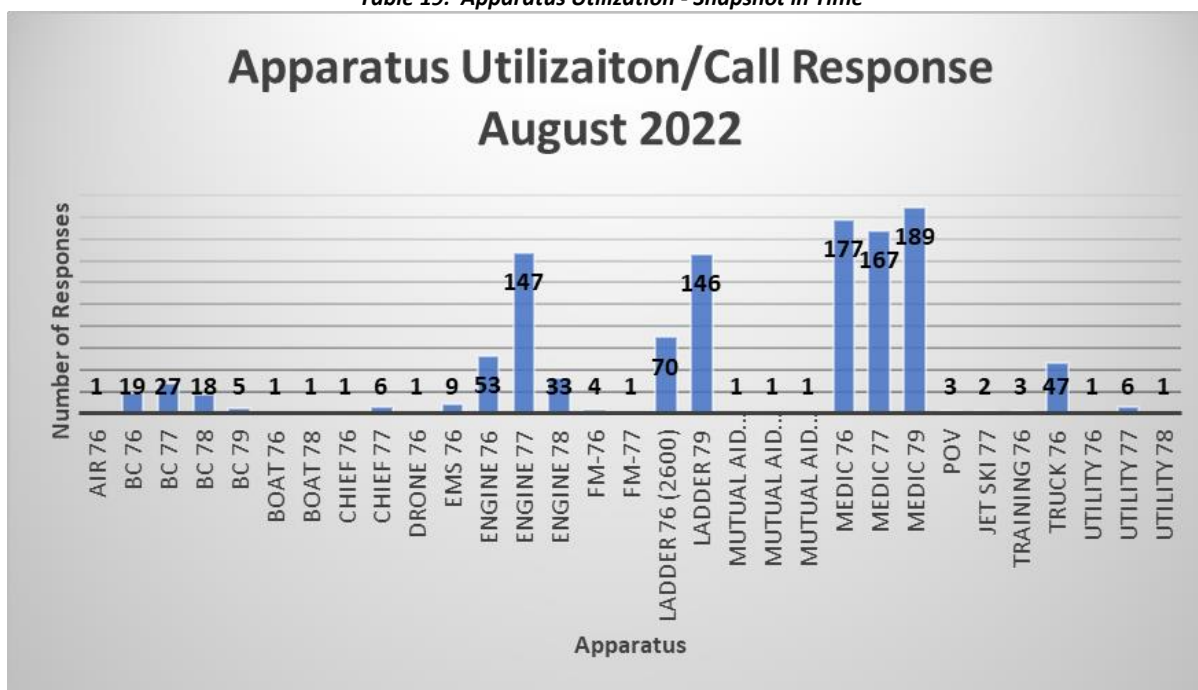
The district currently has on order--awaiting delivery:

- Sutphen Quint/108' Rearmount Aerial
- Sutphen Engine

## Utilization of Apparatus

The following chart provides a snapshot of apparatus utilization. The numbers shown indicate call responses for the month of August 2022. It is important to note that the department responded to 665 calls during the period. In some calls for service, multiple apparatus responded to the same incident based on the nature of the call.

**Table 19: Apparatus Utilization - Snapshot in Time**



## Sufficiency of Apparatus

The district appears to have the appropriate amount of apparatus needed to support operations. It is important to note that due to weather-related events and the need for standby at tourist events, the district needs to maintain a larger than normal reserve apparatus cache. This is wise and should be continued. It is also important to note that the 75' Quint operated at Station 79 has a reserve 75' Quint available for use when it is down for maintenance. Once the new 108' Quint/Truck is delivered, the consultants recommend strong consideration be given to maintaining the 100' Quint/Tower Ladder to serve as a reserve for the new aerial. This will ensure consistent capabilities throughout the district regardless of frontline apparatus status.

## 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 \$800,000. Ladder trucks and tower ladders are now costing well over a million dollars. These varying numbers make it difficult for most districts to maintain a consistent tax levy/revenue model when including apparatus purchases into their capital program. MIGCFD has utilized impact fees to purchase apparatus. As the district becomes more built out, this source of revenue will likely slow necessitating the need for the use of a sinking fund/escrow account, thereby spreading this large revenue need over the life of the apparatus. It is the lead consultant’s belief that the district under Chief Haney’s leadership is now using the sinking fund model. This should be continued and supported.

For readers not familiar with the sinking fund process, the key is determining 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. Sinking fund payments are placed in a restricted “savings account” reserved for the purchase of apparatus.

The formula for calculating the cost of the rig based on the compounded interest 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/districts commonly schedule apparatus to have a 20 to 25-year serviceable life. A great deal can change in technology and standards over 25 years. Up until only a few months ago, using historical cost increases seen by the lead consultant, the percentage multipliers typically suggested were as follows:

- Command vehicles, pickup trucks, and light duty utility vehicles – 3%
- Ambulances – 5%
- Pumpers, aerial apparatus – 5%



These multipliers are nowhere close to the inflationary increases being seen in just the last few months. Fire apparatus manufacturers are reporting double digit percentage increases which will have a significant impact on sinking fund contributions. Based on the volatile financial market of today, a multiplier between 10% and 15% is much more realistic. The consultants also recommend that other items such as SCBA be included in the sinking fund. The typical multiplier that has worked well for SCBA is 2.5%, but a more realistic number based on conversations with SCBA manufacturers is 11%.

As the economy stabilizes along with the supply chain concerns, these multipliers can be backed down based on actual future costs of new vehicles and breathing apparatus.

## Mutual Aid / Automatic Aid

Although fire departments/districts should work to provide staffing and available apparatus to cover the typical call volume encountered on a regular basis, there are instances when—due to heavy call volume or a large-scale incident—emergency service agencies are unable to cover the workload completely within their single agency. In these instances, emergency organizations must request aid from their surrounding neighbors. This is known as mutual aid.

Similarly, many departments/districts have entered into agreements with their neighboring agencies to respond automatically, thereby allowing the closest geographically located units to arrive and begin providing services regardless of jurisdictional boundaries. This is known as automatic aid.

- **Mutual Aid:** The philosophical concept is to aid a fire district upon a request made by a host district. The sole purpose is to give or receive assistance when all available resources—equipment or personnel—are depleted, and then on a limited basis. Generally, mutual aid is drawn upon during an emergency incident where a particular or specialized need arises on a small to medium size incident that would not be expected as a lengthy or long-term incident.
- **Automatic Aid:** Automatic aid occurs when departments/districts agree prior to an emergency incident to share resources as part of the original/first dispatch to a 9-1-1 call for help. The National Fire Protection Association (NFPA) defines automatic aid as follows:

*Automatic aid is established through a written intergovernmental agreement that provides for the simultaneous dispatch of a predetermined response of personnel and equipment to a neighboring jurisdiction upon receipt of an alarm and is included as part of a communication center's dispatch protocols.*

This automatic “front loading” of response equipment and staffing is extremely important in today's fire environment since fires progress much quicker than in years past, due to the combustibility of the products burning (i.e., plastics/composites/laminates/foams compared to natural products). This faster-moving fire environment requires greater assets early in an incident to quickly gain control and minimize loss.

Automatic aid is also preplanned to include multiple alarms, thereby allowing an incident commander to simply elevate the response (i.e., 2<sup>nd</sup> Alarm, 3<sup>rd</sup> Alarm, 4<sup>th</sup> Alarm, etc.). This preplanning is efficient and greatly assists the incident commander in his/her decision-making process.

Automatic aid can also assist departments/districts in compliance with NFPA 1710 standards related to staffing.

The below side-by-side comparison highlights the differences between the two systems:

**Table 20: Comparison of Mutual Aid vs. Automatic Aid**

Mutual Aid vs. Automatic Aid	
Mutual Aid	Automatic Aid
Mutual aid is not automatic: <ul style="list-style-type: none"><li>Aid is requested on an ad hoc basis by the local incident commander.</li><li>Mutual aid, even in the best situations, takes time to put into operation.</li></ul>	Provides the closest, most appropriate fire service resource regardless of jurisdictional boundaries.

### A Word of Caution

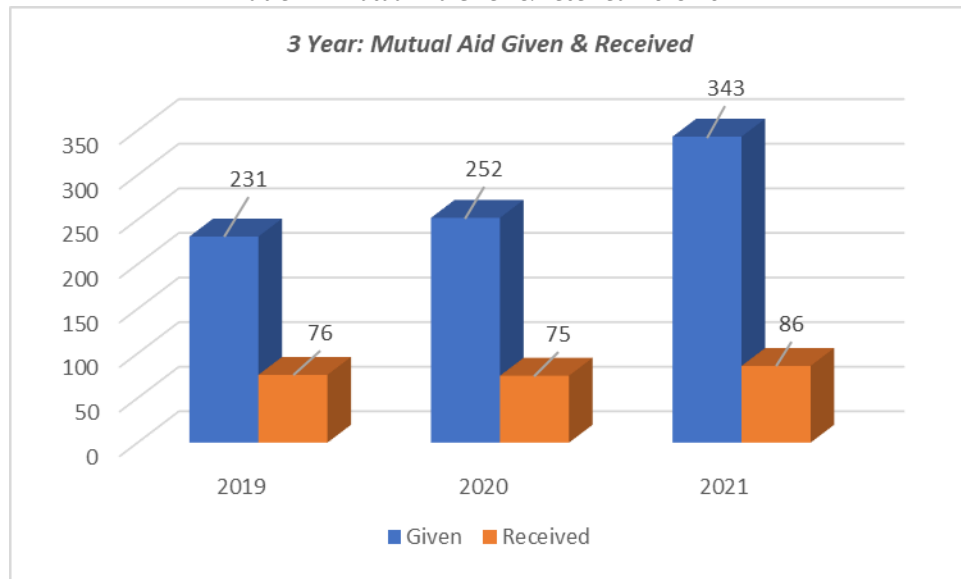
In some studies, the consultants have found that governing officials believe that requesting assistance from other service providers on a routine basis will preclude them from having to add additional personnel, pay overtime, or provide more apparatus. This thinking is greatly flawed as the foundation of mutual and automatic aid is the reciprocity of services.

### District Participation

The fire district participates in mutual aid with the surrounding departments. At the time the study was initiated, the district did not participate in automatic aid; however, such discussions were just occurring. Attached as **Appendix F** is a new mutual aid agreement that became effective October 1, 2022. This agreement does not include an automatic aid component.

The below chart provides a breakdown of the number of times mutual aid was given and received over a 3-year period (2019-2021).

The three-year average for mutual aid given equaled 4.02% of all calls and 1.15% received for all incidents in the study period.

**Table 21: Mutual Aid Given & Received: 2019-2021****Table 22: Aid Given & Received By:**

<b>Aid Given</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Conway FD	0	0	1	1
Georgetown County FD	5	0	4	9
Horry FD	145	168	98	411
Horry County FD	0	0	135	135
Midway FD	49	48	51	148
Myrtle Beach FD	0	0	5	5
North Myrtle Beach	0	0	1	1
Surfside FD	32	36	28	96
Surfside Beach FD	0	0	20	20
<b>Total</b>	<b>231</b>	<b>252</b>	<b>343</b>	<b>826</b>
<b>Aid Received</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Georgetown County FD	3	0	1	4
Horry FD	35	40	27	102
Horry County FD	0	0	18	18
Midway FD	25	33	38	96
Myrtle Beach FD	9	0	0	9
Surfside FD	4	2	0	6
Surfside Beach FD	0	0	2	2
<b>Total</b>	<b>76</b>	<b>75</b>	<b>86</b>	<b>237</b>

## Development of Automatic Aid System

The consultants are advocates for utilization of an automatic aid system. Two models exist that can be used to guide in the development of a system for the Grand Strand.

### Regional Automatic Aid System

The Regional Automatic Aid System has been utilized in the Phoenix Valley since 1976. It is a time-tested deployment model that provides the closest, most appropriate fire service resource regardless of jurisdictional boundaries. It is easily and decisively the “gold standard” for automatic aid systems operated throughout the United States. Key aspects of the system include but are not limited to:

- Shared communication centers
- Joint equipment purchasing
- Better geographically located facilities/fire stations designed to provide timely emergency response coverage to a designated district/area instead of a single-focused community model. This is accomplished through a conscious distribution of resources within a member’s jurisdictional boundaries to ensure that no participant unfairly benefits at the expense of another member and that jurisdictional equity and autonomy is maintained.
- All assets maintained by a member of the Automatic Aid System are available, shared, and operated as if the asset is the property of the entire system and not just belonging to a single community/district.
- No liability exists if a community is not able to provide the requested assistance due to other calls or being unavailable due to training, public education, community events, etc.
- Operation and staffing of specialty response teams (examples):
  - Hazardous Materials
  - Trench Rescue
  - Structural Collapse Rescue
  - Confined Space Rescue
  - High-angle Rescue
  - Dive/Underwater Rescue
  - Swift Water Rescue
  - Fire Cause and Origin Investigation
- Shared specialized unit response:
  - Command Team
  - Rehab
  - Brush Fire Response
  - Water Tenders

Hallmarks of the system are shared standard operating procedures, training and 4-person company staffing. All participants of the automatic aid system agree to operate at emergency incidents utilizing the same protocol and procedures. To accomplish this, they also agree to provide the same base level (academy) training to all firefighters. Likewise, incumbent firefighters are required to attend continuing

education including specialized training based on their rank and operational assignments (e.g., engine company, ladder company, safety officer, command officer, etc.). These two factors allow the various participants to operate seamlessly as one large fire response agency compared to individual jurisdictions who only come together during times of emergency and are then forced to merge operations spontaneously.

In addition to coordinated standard operating procedures and training, a staffing standard of 4-person companies is maintained. This staffing level not only meets national standards (NFPA 1710), but also ensures that the same number of firefighters will arrive on-scene and be able to perform standardized functions regardless of jurisdiction. This staffing level applies to all engine and ladder companies.

Another major aspect of the system is the elimination of duplicate services. Since equipment and tools are shared as part of the specialty team response model, it fosters the purchase and maintenance of specialty assets and equipment that would likely be prohibitive in cost or frequency of use for any one jurisdiction.

#### [Mutual Aid Box Alarm System \(MABAS\)](#)

The Mutual Aid Box Alarm System currently includes six Midwest states: Illinois, Wisconsin, Indiana, Michigan, Missouri, and Iowa. Fire districts in the following states are considering joining the MABAS system: Minnesota and Ohio.

The MABAS system has been recognized as a “best practice” by the Department of Homeland Security and is currently being considered as the model for inter-state mutual aid agreements. The concept behind MABAS is that a fire district develops an alarm card, which will indicate what apparatus/equipment and/or personnel they are requesting, who they are requesting it from, and what level (how much/many resources) is desired prior to the actual emergency. The MABAS cards are designed to cover a generic situation and/or area of response district. Different cards are designed for situations such as tender box (requiring large amounts of water to be trucked in), mass casualty box, confined space box, hazardous material box, grass/brush fire box, etc. A portion of the card is classified with the lowest alarm (still alarm) and progresses in magnitude in the following order, Box, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> alarm. Each alarm will bring in additional apparatus as designated by the host (community having the emergency) district.

The card also designates the type of equipment to be sent and from which district. For example, a typical card will have an alarm classification heading (i.e., engines, tankers, trucks, ambulance, chiefs, and special equipment).

Another portion of the MABAS Box Card designates the districts that are to change quarters to the stricken community. Change of quarter units respond from their respective communities and staff the fire/rescue/EMS station of the stricken community until the time that community can cover additional calls itself.

MABAS cards are a predetermined assessment of the fire and/or EMS risk in a community and can be changed (additional equipment requested) during the course of an incident. The value of such a card is the fact that it releases the command officer from the need to recall what equipment is available and where it might come from during stressful times.

Most MABAS cards are designed to take a minimum number of resources from any neighboring community, thereby allowing that community to adequately protect its own district. Therefore, it is not uncommon to have numerous districts respond to an incident versus only a few districts with multiple apparatus and staffing.

The consultants recommend that the district continue discussions with the regional departments to develop and implement an automatic aid system.

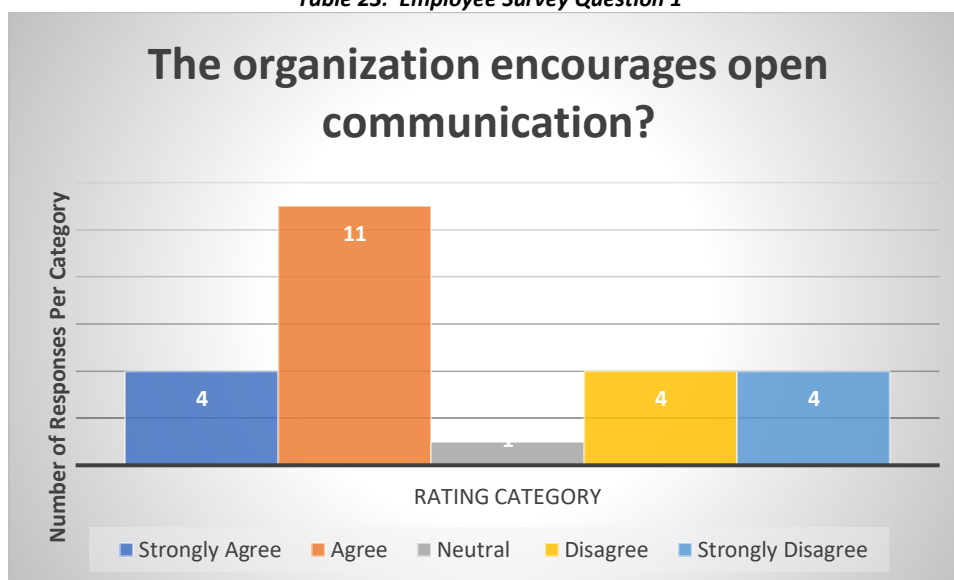
## Employee Survey

In addition to analyzing major human resource processes that may positively or negatively impact the human capital of the district, the consultants utilized an employee survey tool to gauge employee feedback on specific human resource and operational topics. Understanding the feelings and perspective of the line employees is essential in being able to effectively manage and lead front line workers within a progressive public safety agency. All employees were invited to participate. The survey was a “blind” process where answers were not trackable back to any one specific employee, thereby making the process confidential and protected. The questions were developed to help gain feedback on various elements of retention and job satisfaction. The aggregate results of the survey questions are provided.

Additionally, as part of the study, all district employees were interviewed. Although the consultants did not know how each employee had answered the survey questions, many employees openly shared their opinions related to strengths and weaknesses within the organization. Using these two separate processes the consultants were able to gain insight into the feelings and unique perspectives of the employees. The consultants, where appropriate, have added narrative statements following the below survey questions based on information gleaned during these employee interviews.

The consultants recommend that the district view this survey as an internal baseline of the organization from the employee’s perspective. As changes are made, the survey should be repeated to allow a comparative analysis of progress. A copy of the survey questions is provided in **Appendix H** at the end of this report.

**Table 23: Employee Survey Question 1**

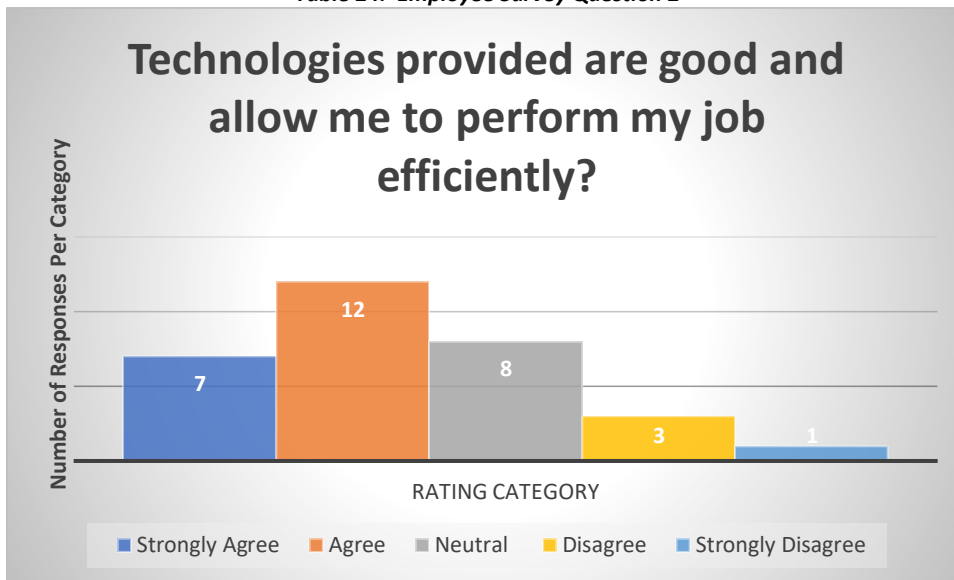


Generally, employees agreed with this question. Feedback was provided that districtwide communication from the Fire Chief has become less frequent, and employees appreciate direct communication from the



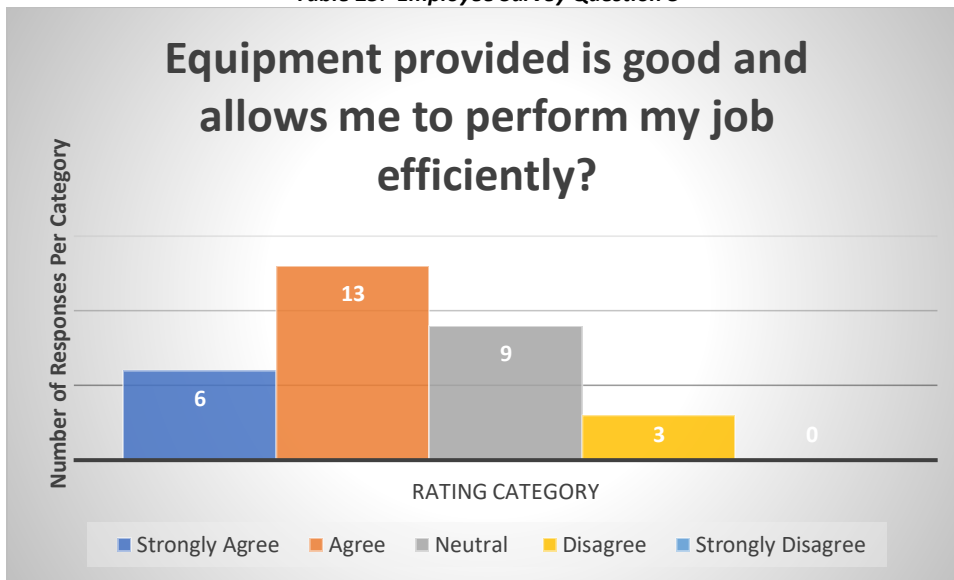
Chief to explain strategic and executive level decisions. This helps them to better understand why certain decisions are made and how those decisions should/will impact the work they perform.

**Table 24: Employee Survey Question 2**



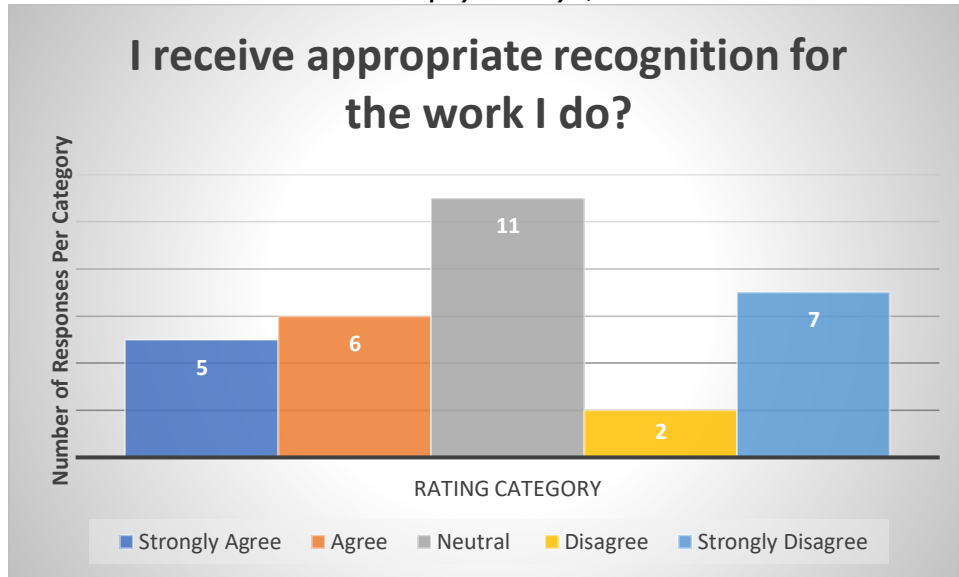
Employees did not provide any specific feedback on this area.

**Table 25: Employee Survey Question 3**



Employees did provide feedback against recent equipment purchases (i.e., new rescue boat, staff vehicles, high-water vehicles), but they appreciate the Chief’s explanation of how the budget process works related to impact fees, and how certain fiscal resources are restricted in their usage.

**Table 26: Employee Survey Question 4**

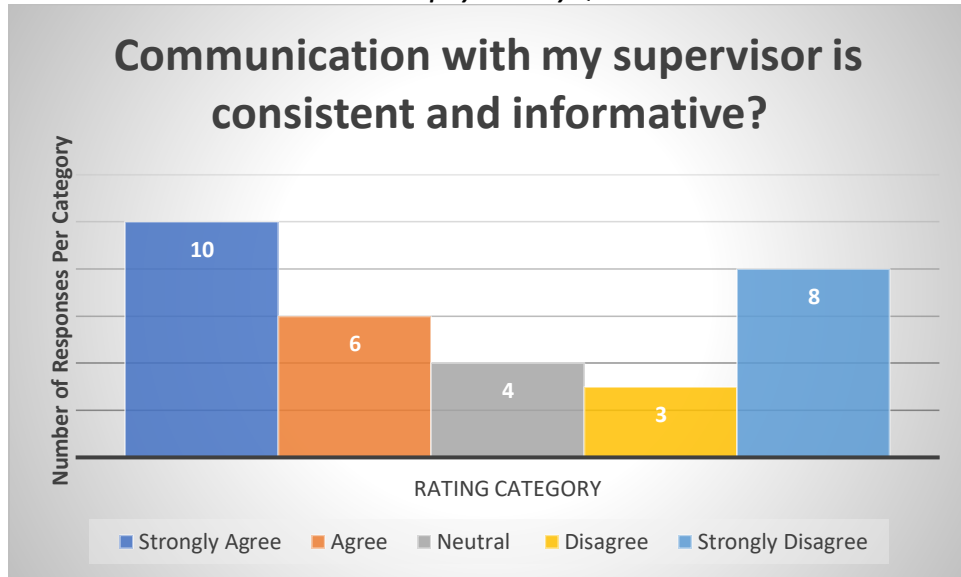


Employees in any organization want to feel that their work is meaningful, that it serves the common goal of the organization, and that they are respected for the job they perform. Employee recognition does not need to be a grand or expensive gesture, but it does need to be sincere.

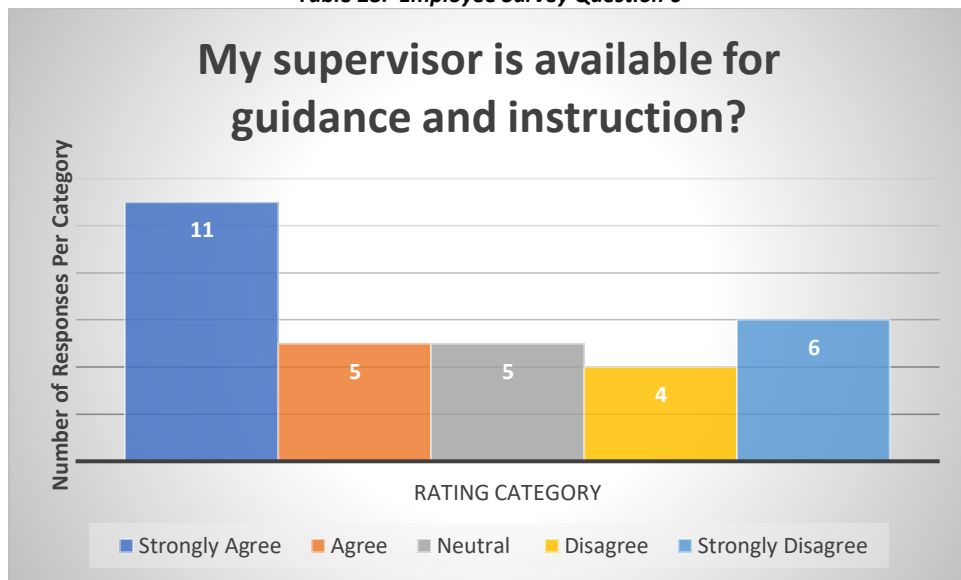
Attraction, motivation, engagement, and retention are critical issues facing all employers. Successfully addressing these issues begins with, at a minimum, having a strategy that aligns certain elements of the employment experience with the goals and objectives of the employer. A Total Rewards Model encompasses specific employment elements to drive performance and support a positive employee experience. This Total Rewards Model considers all the following areas (Source: WorldatWork):

- **Wages (base pay and variable pay):** Pay provided by an employer for services rendered. This includes both fixed pay and variable pay tied to performance.
- **Benefits:** Programs an employer uses to supplement the cash compensation that employees receive. These include health, income protection, retirement programs that provide security for employees and their families, etc.
- **Well-being:** Organizational practices, policies and programs that help employees achieve success both at work and outside of work.
- **Talent Development:** Provides the opportunity and tools for employees to advance their skills and competencies in both short- and long-term careers.
- **Recognition:** Acknowledgement of employee behaviors/outcomes that support the organization's success. Recognition programs can be formal or informal and do not need to have a financial component.

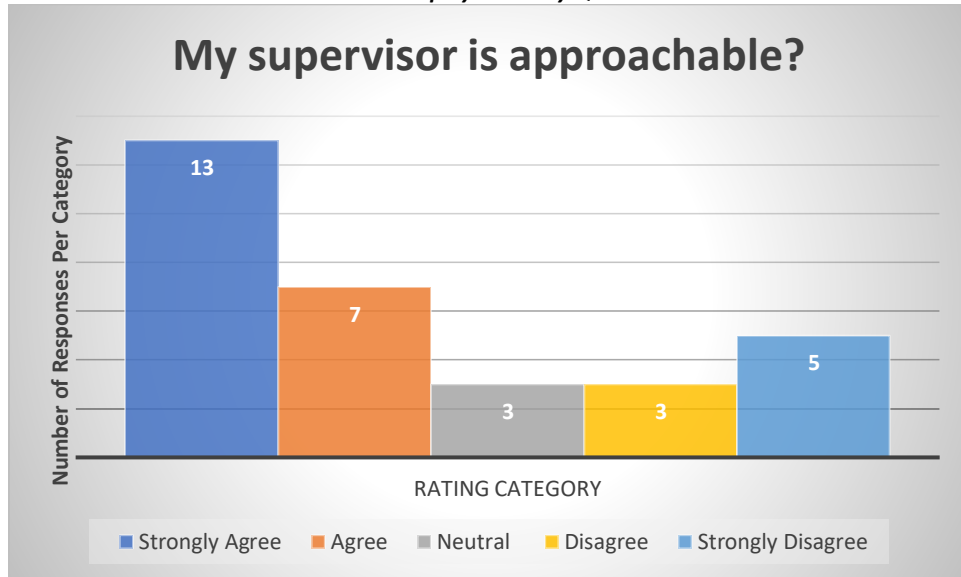
**Table 27: Employee Survey Question 5**



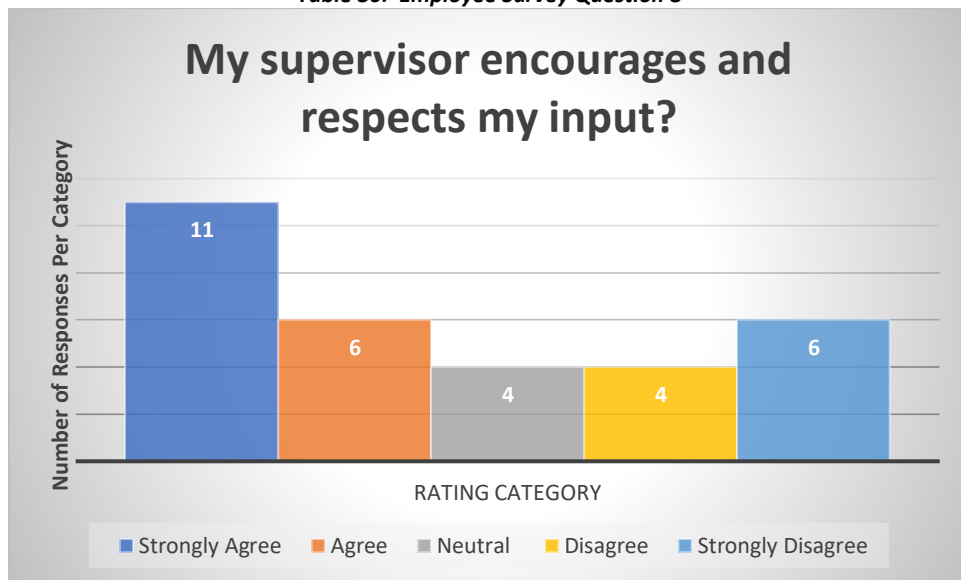
**Table 28: Employee Survey Question 6**



**Table 29: Employee Survey Question 7**



**Table 30: Employee Survey Question 8**



In person discussions with employees identified that responses to Questions 5-8 may differ based on individual supervisors.

With that said, in any organization, there are leaders and managers:

- Leaders set the goals and direction of an organization; and influence, motivate, and encourage others to contribute toward those goals.
- Managers organize, direct, and control their subordinates to accomplish the work of the organization.

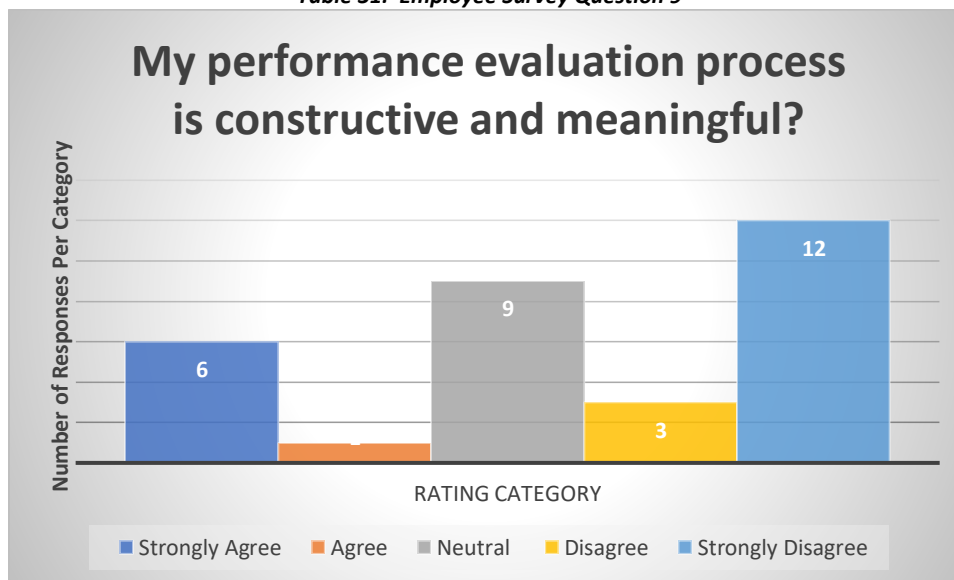
Supervisors typically tend to lean more in mindset and skill set toward one of the above personality groups – leader or manager. One is not better or more desirable than another if supervisors understand their natural bent and how this impacts employee performance.

It is imperative that both personality types (leaders and managers) work to develop their subordinates for higher level responsibilities. An organization places significant resources into managing tasks and personnel. Both leaders and managers need to be cautious to not allow themselves to take on the responsibility of simply doing the work themselves rather than developing their subordinates. They also need to avoid micromanagement.

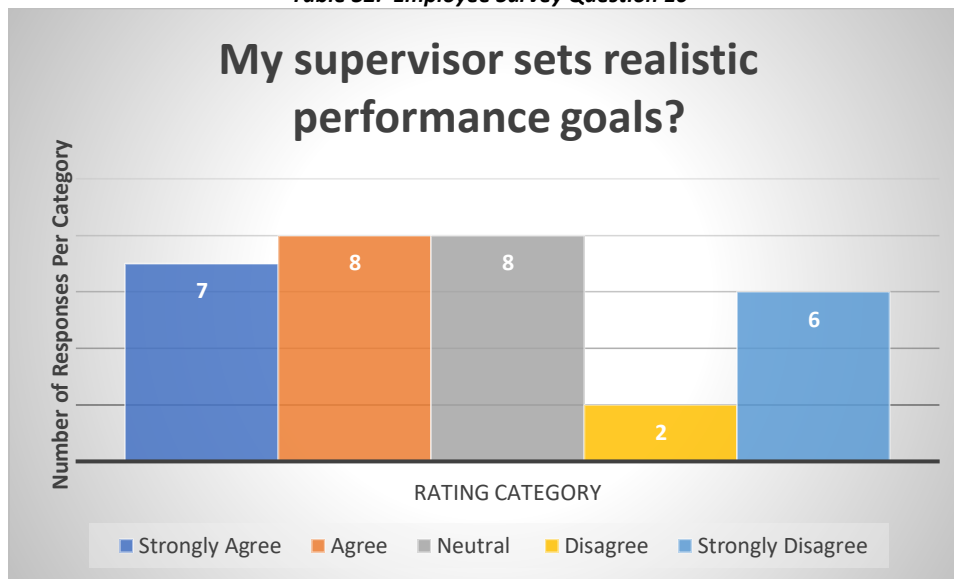
Micromanagement results in de-motivating staff, dismisses the knowledge and experience of others, discourages new opportunity and innovation resulting in a loss of trust that simply causes employees to disengage from their work--all of which may contribute to frustration and turnover. When a supervisor immerses themselves in the work of others, they often are not focusing on the correct priorities and become too narrowly focused. In addition, personnel who are not prepared to perform the work because they have not been allowed to can have a devastating impact during periods of turnover/transition.

Based on employee interviews, a level of micromanagement exists within the supervisory staff of the district. This concern was repeatedly communicated by staff during interviews. This feedback was brought to the attention of the administration by the consultants during one of the on-site visits. The Fire Chief has taken this feedback seriously and redirected specific management duties back to lower supervisor ranks to help grow and develop each rank in a hands on/mentoring manner that will ultimately enable those supervisors to effectively address issues that would reasonably be handled at each command level.

**Table 31: Employee Survey Question 9**

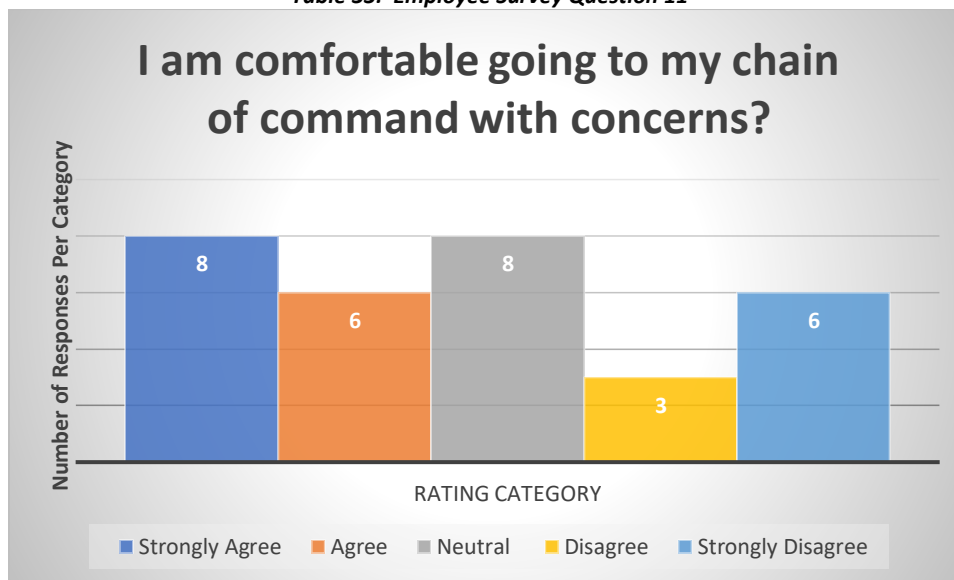


**Table 32: Employee Survey Question 10**



The organization does not currently do routine performance evaluations. The consultants believe that there is value in an ongoing performance management program. This will be discussed later in the Human Resources section of the report.

**Table 33: Employee Survey Question 11**

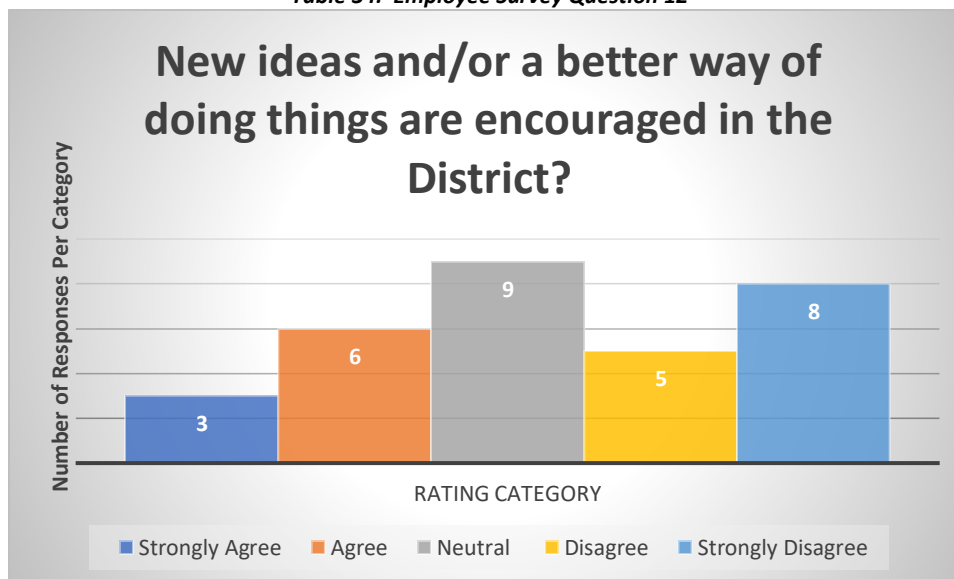


A chain of command creates a hierarchical structure allowing for the delegation of duties and accountability. It is also an important discipline tool. Ignoring the chain of command allows for circumvention of structure. Because the organizational culture currently allows for circumvention, this may be a reason for the divergence of ratings shown in this survey question.

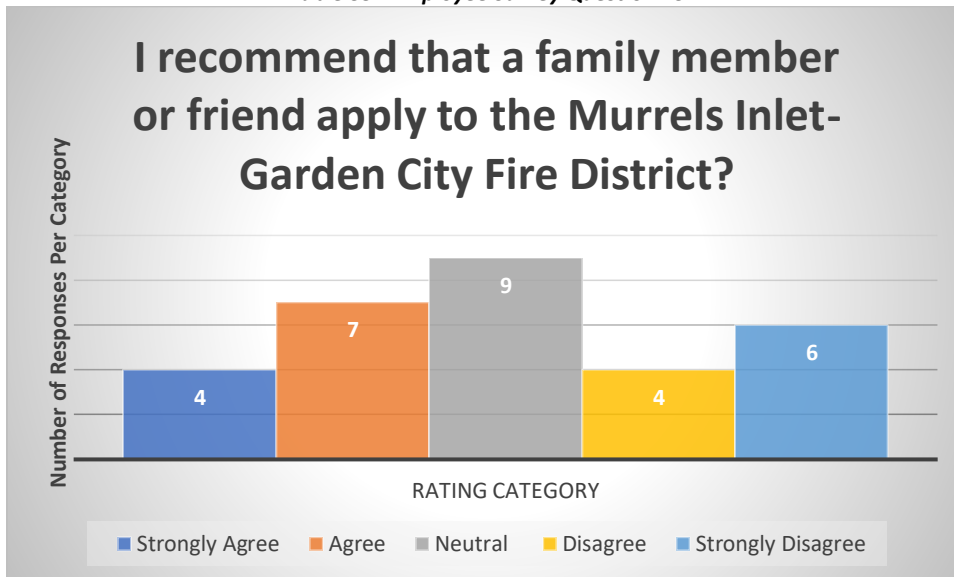
The district has recently experienced significant turnover in both line and supervisory staff. Because of this turnover, the chain of command is not as clear to all employees as it should be. This is driven by the fact that the administration has taken on responsibilities that could/should be addressed at a lower rank. This later aspect is driven by the fact that the new supervisors/officers are working hard to learn all aspects of their new positions which can be overwhelming as they juggle emergency response demands and training for their new position. This workload strain has the potential to lead to micromanagement by senior supervisors. Senior supervisors become challenged by the time demand of getting issues taken care of, which is often faster and easier if you do it yourself, rather than taking the time to train the new supervisor on how to accomplish the work. Although understandable, this practice becomes a slippery slope that will have a long-term negative impact on the overall health of the organization.

Based on feedback provided to the consultants during the study, the Fire Chief has made recent changes in management responsibilities at the Battalion Chief level which should help this concern.

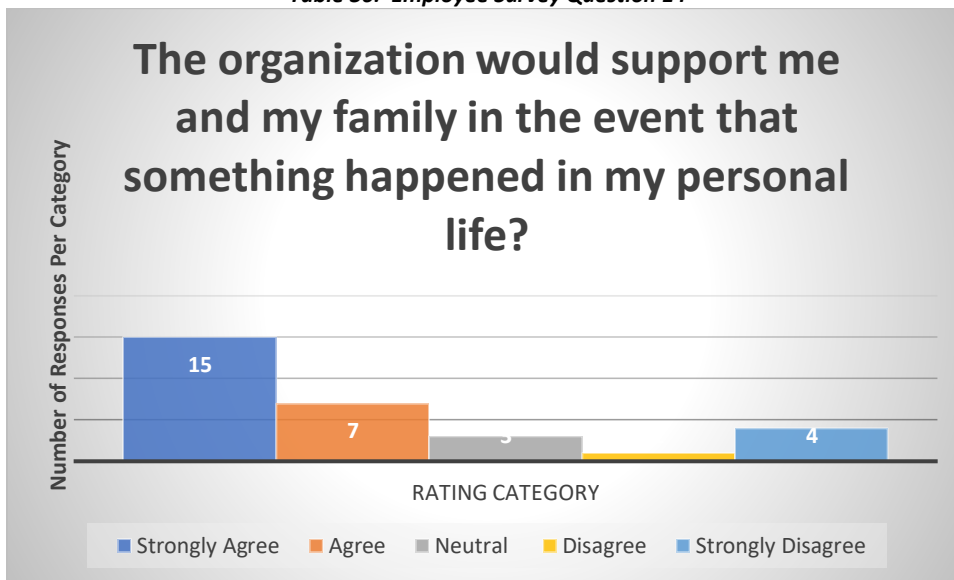
**Table 34: Employee Survey Question 12**



**Table 35: Employee Survey Question 13**



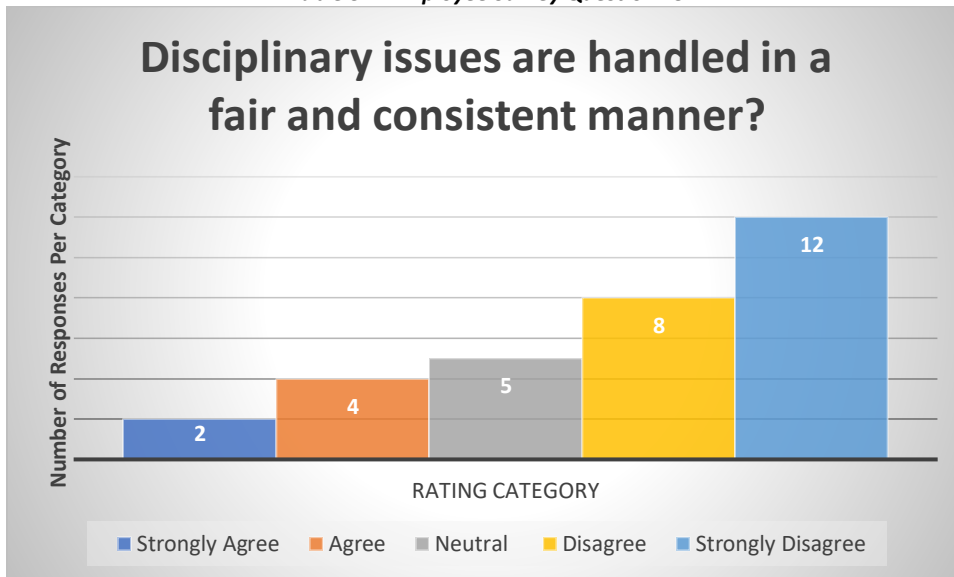
**Table 36: Employee Survey Question 14**



Although employees feel supported personally, that support does not necessarily include a recommendation of MIGCFD for employment based on the totality of findings within the organization.

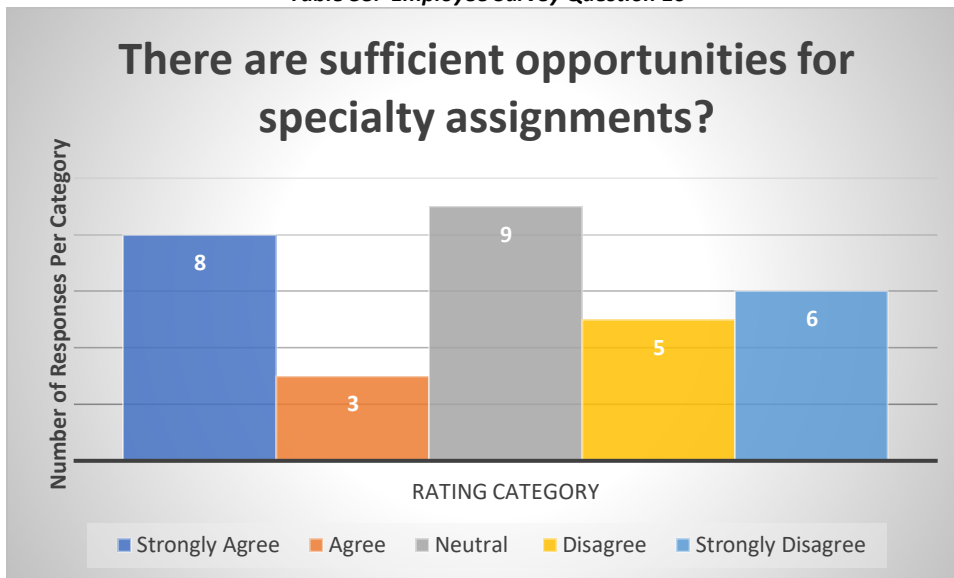


**Table 37: Employee Survey Question 15**

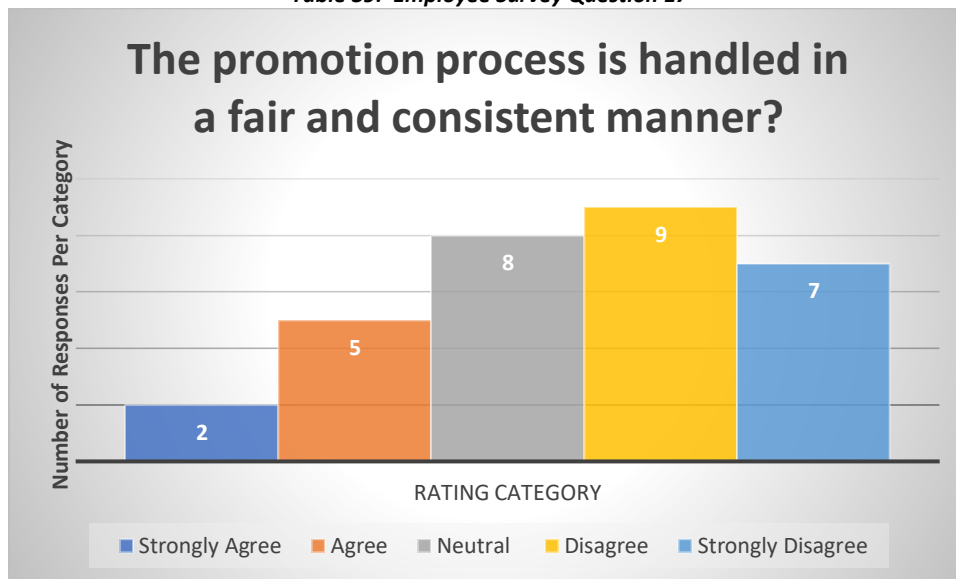


Significant feedback was provided by employees on this topic. Disciplinary action will be discussed in a later section of the report.

**Table 38: Employee Survey Question 16**

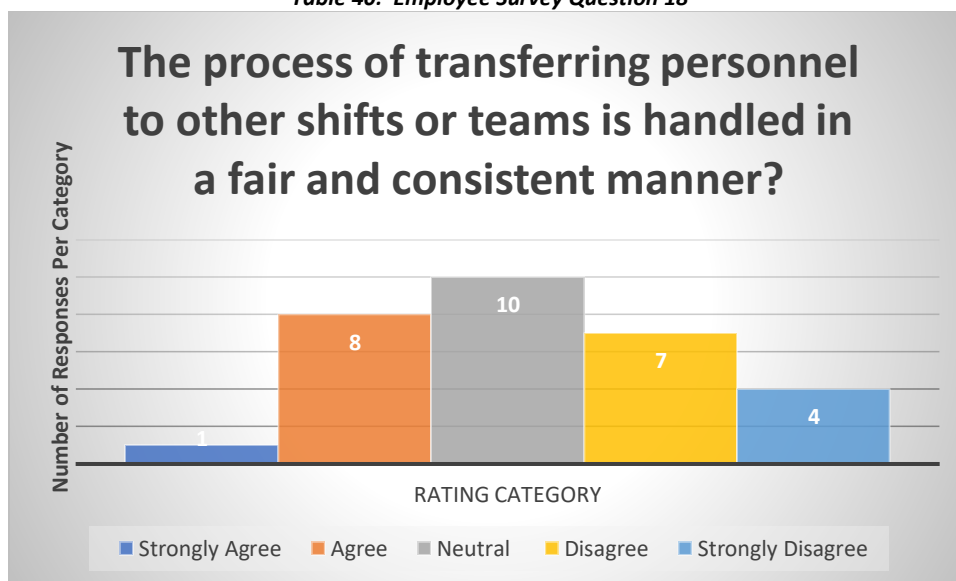


**Table 39: Employee Survey Question 17**

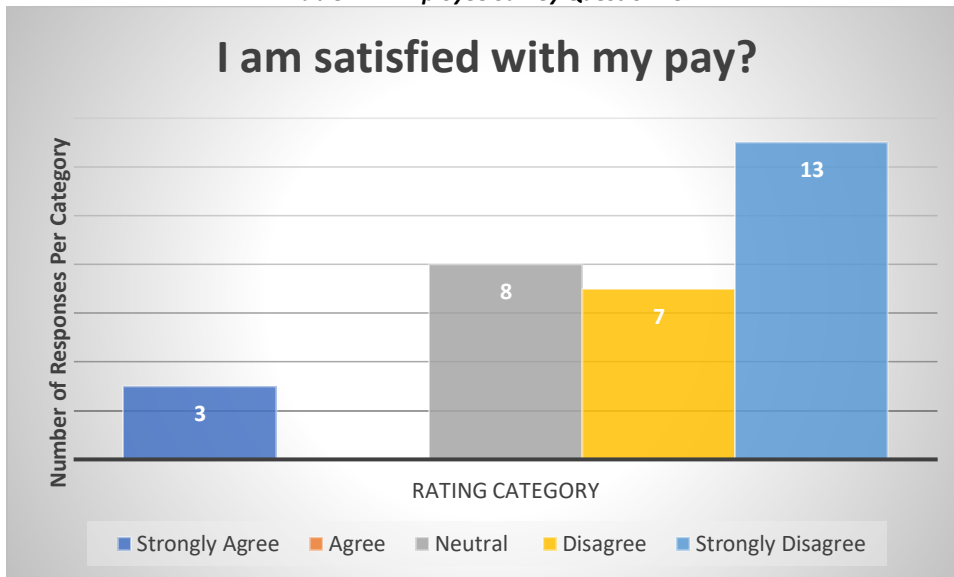


Significant feedback was provided by employees on this topic. Promotions will be discussed in a later section of the report.

**Table 40: Employee Survey Question 18**

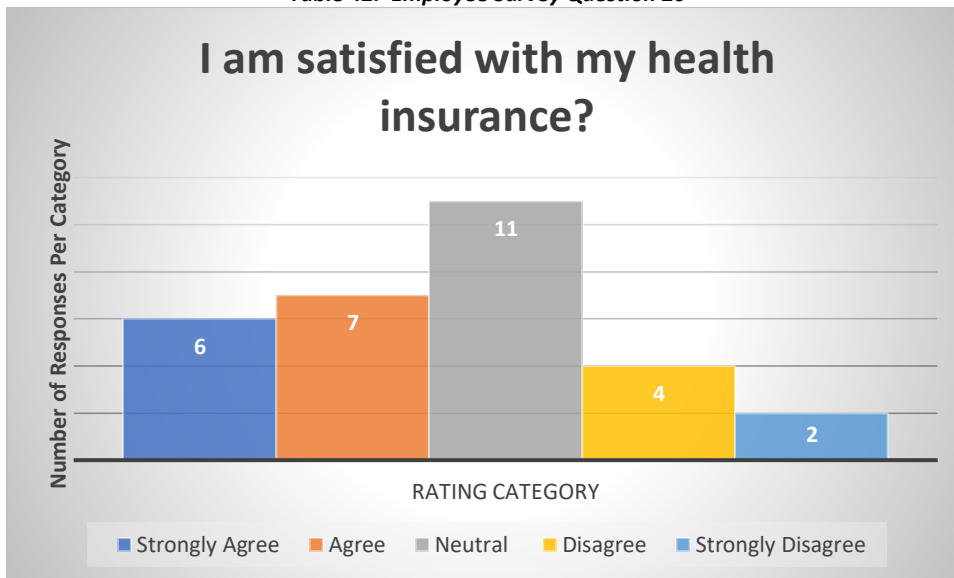


**Table 41: Employee Survey Question 19**

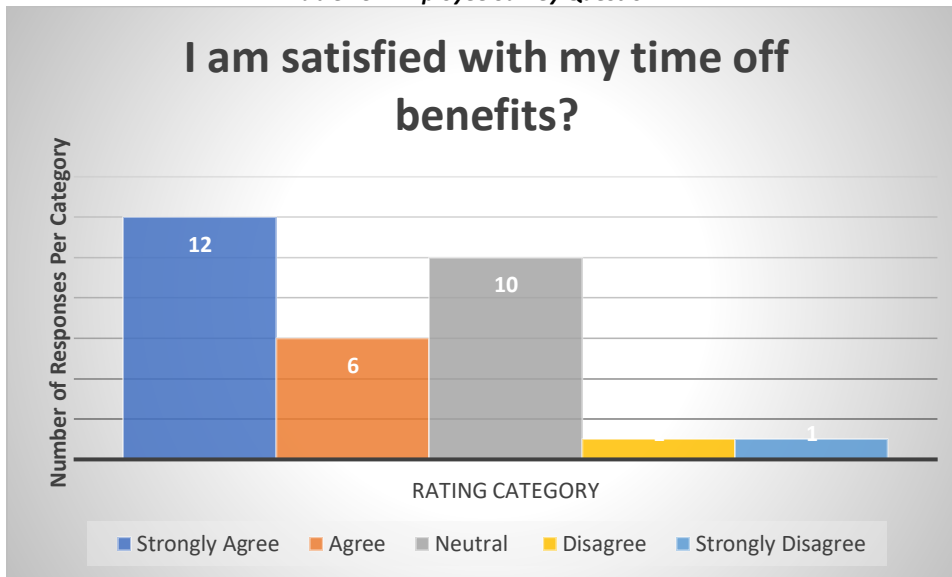


Wages were discussed at length during employee interviews. Many employees clarified their understanding that MIGCFD wages, in comparison, are aligned closely to the local market, but the expectations set forth by administration along with the number of hours of overtime and calls for service were identified as to why employees are pushing for higher compensation.

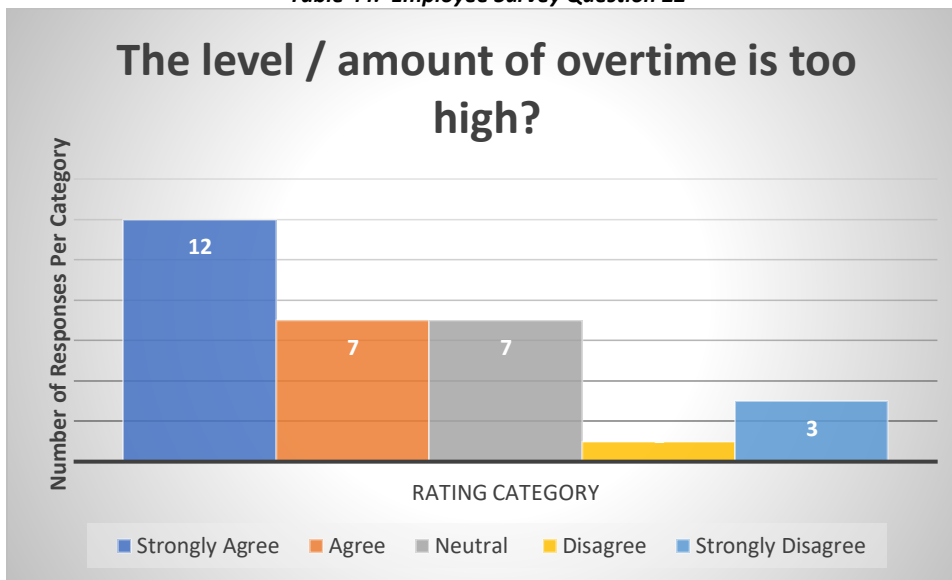
**Table 42: Employee Survey Question 20**



**Table 43: Employee Survey Question 21**

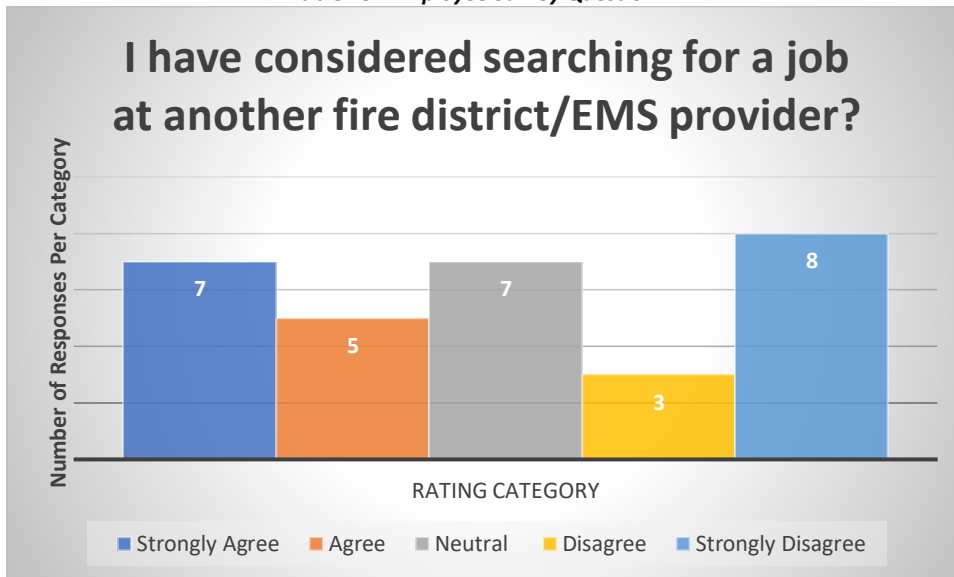


**Table 44: Employee Survey Question 22**

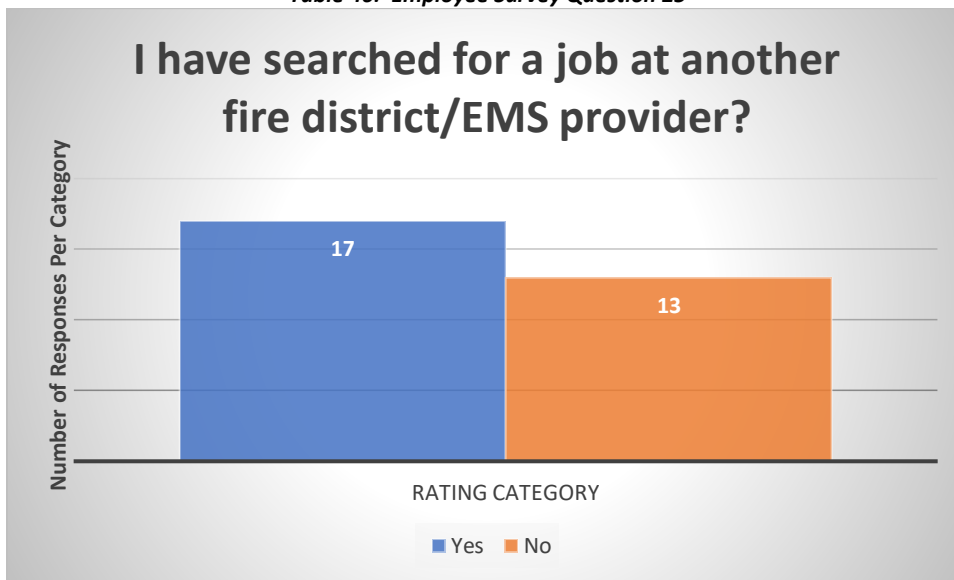


Overtime is required daily and usually in multiple numbers. So far, the district has not yet needed to do mandatory overtime calling, but administrative staff have sometimes worked shifts to avoid mandating employee callbacks. Burnout, fatigue, the potential for employee injuries, including errors in patient care are all significant concerns with the level of hours being worked.

**Table 45: Employee Survey Question 24**

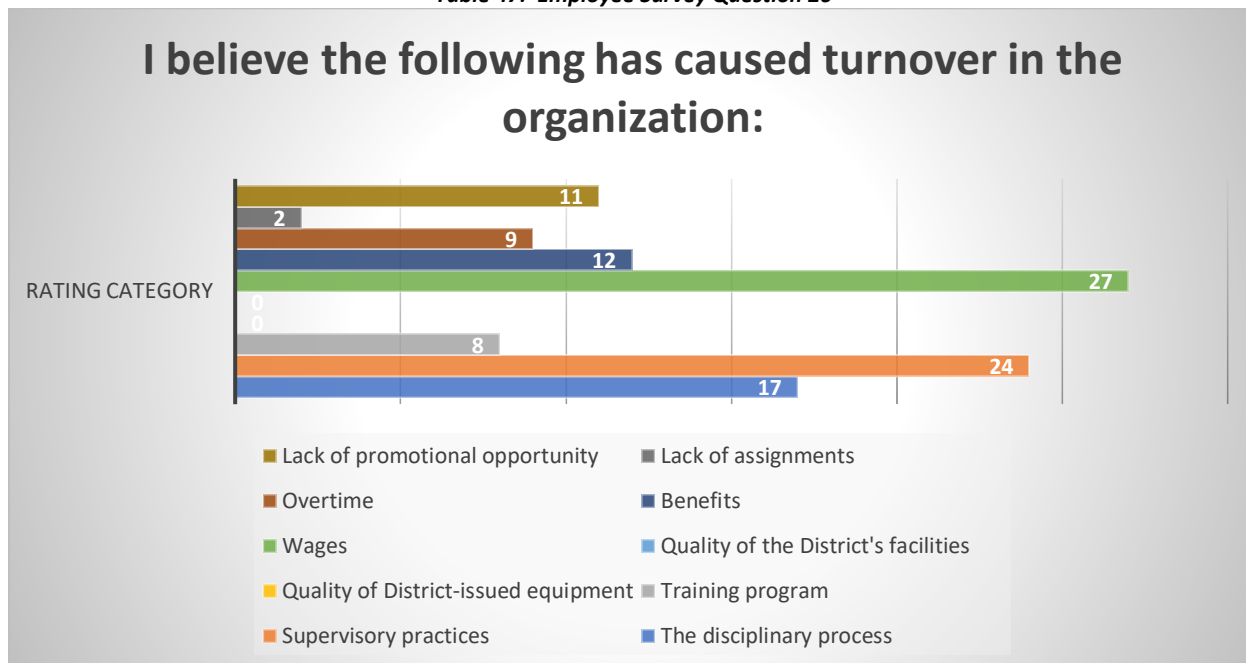


**Table 46: Employee Survey Question 25**



Turnover and retention analysis supports the fact that employees are seeking other employment opportunities.

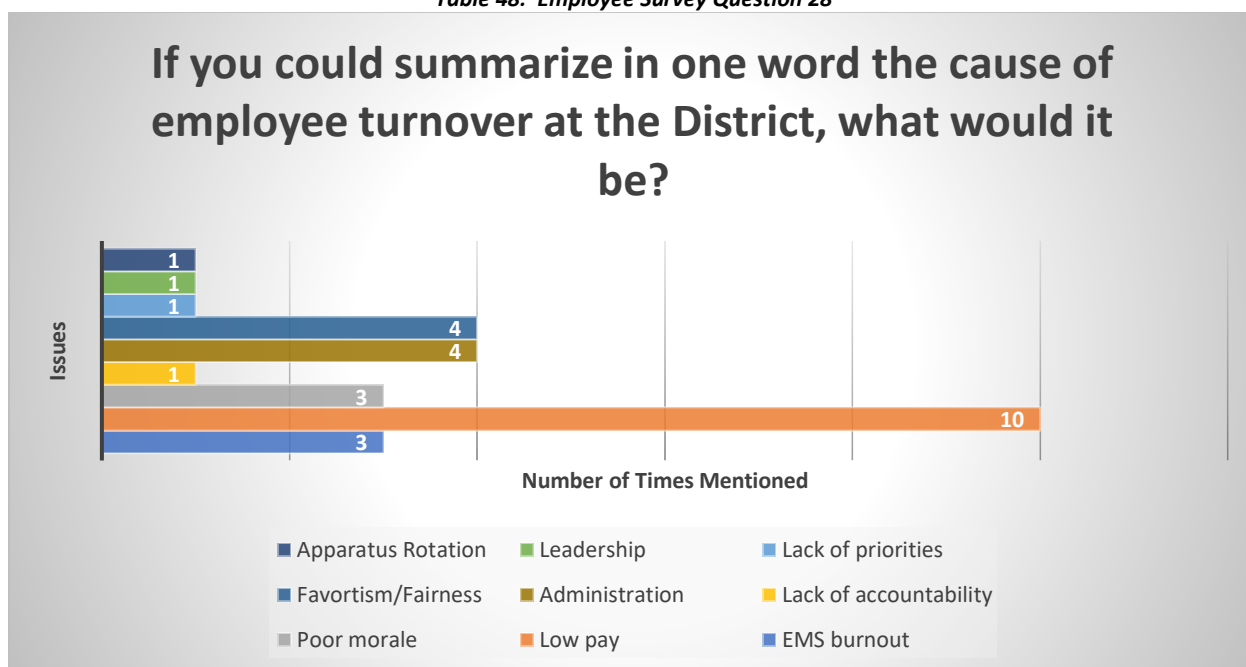
Table 47: Employee Survey Question 26



Top 3 ratings related to employee turnover:

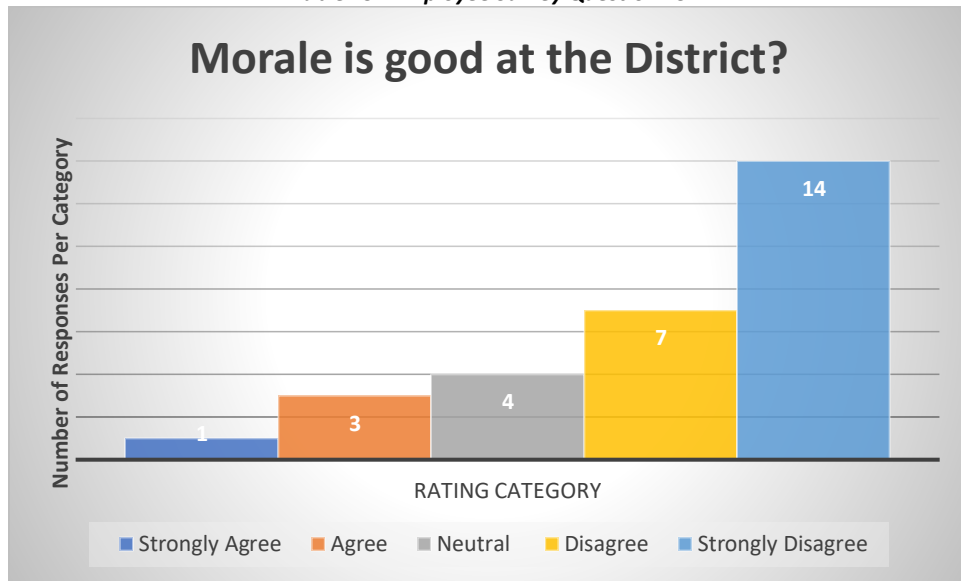
1. Wages
2. Supervisory practices
3. Disciplinary process

Table 48: Employee Survey Question 28



High turnover and low retention are strong indicators of organizational concerns within the district. Although wages are the leading explanation for turnover, existing employees understand that wages are aligned to the external market but may not be sufficient for the level of expectation currently put onto employees. Human Resource processes (supervisory practices) which include recruitment, promotion, performance management, and discipline are covered in the Human Resources section of the report.

**Table 49: Employee Survey Question 23**



Morale is an intangible factor that describes the emotions, attitude, satisfaction, and overall outlook of employees in a workplace environment. Given the ratings on other topics, this is not a surprising result.

*Table 50: Employee Survey Question 27 (Aggregate Answers)*

What is the district's greatest strength, conversely what is one thing that the district could improve on?	
Greatest Strength	Area to Improve
Promotional Opportunities	Leave time
Cares about employees	Pay and retention of personnel
Equipment	Not enough employees
Wages	Morale
Small district size	Employee retention
Administration is trying to make improvements	Admin needs to talk and listen to employees
Don't know	How they treat employees
Emphasis on higher education, training, vacation, insurance benefits	Pay, staffing, officer development, quality of equipment
Small district size	Employee retention
Growing department	Micromanagement (not enough workers compared to supervisors)
Training facilities	Favortism
Generous time off policy	Employee retention
Support of employees	Pay and more employees
Ability to overcome staffing woes while still meeting call volume	Low staffing, high overtimes, poor morale
Comradery	Less micromangement
Fire Chief who will listen	Low pay
Some of the people	Workload relief
Distance between stations	Favortism
Number of stations for a small area	Additional medic units
Equipment	Fairness
High standards	Low pay
1% fund	Administration must improve
The swap and vacation policy	Low staffing
Fast response times	Performance of supervisors
Family atmosphere	Make documentation less taxing
	No mandatory overtime

“Strengths” refer to the favorable activities, processes, and behaviors of the organization. These are factors the participants identified that contribute to the success of the district. They are areas the employees value.



“Areas to improve” are only valuable if the participants are willing to identify the unpleasant truths. These are the characteristics and behavior that prevent the district from achieving its highest potential and areas the employees perceive the district does not do well.

**Table 51: Employee Survey Question 29 (Aggregate Answers)**

<b>Is there anything else you would like to tell us?</b>
<i>Great district to work for and the command staff is always looking for ways to improve the district. The command staff always has an open-door policy.</i>
<i>Boots on the ground are always considered to be in the wrong...</i>
<i>There are issues with management and administration...</i>
<i>We are treated like we are 8-5 employees – not someone that will most likely will be up running calls most of the night, then be forced into an overtime 48-hour shift.</i>
<i>Low wages</i>
<i>Stop changing the promotional requirements just so leadership can promote the individual they want.</i>
<i>Allow other individuals to go to training classes instead of the same 3-5 people.</i>
<i>Hold everyone to the same standards.</i>
<i>Leadership says they welcome new ideas but are not receptive to when ideas are presented.</i>
<i>Retiree benefits don't cost the district a lot of money and would be a huge incentive for employees to work here till retirement.</i>
<i>Staffing is too low for the call volume. Example – water rescue calls take about a third of the district to respond.</i>
<i>We can't retire without our insurance.</i>
<i>Micromanagement – every decision, big or small, is micromanaged.</i>
<i>Overall, my job satisfaction is reasonably good. Do I wish I was paid more? In my opinion our pay is lower but comparable to the surrounding area. The problem is with the current state of inflation, it is no longer sufficient to survive. Plus, we have a serious problem with compression and lack of raises associated with longevity. There is no incentive to stay.</i>
<i>The chain of command and lack of communication from administration is terrible.</i>
<i>The administration is unapproachable. Often answers fall under the “because we said so” umbrella. No real explanation.</i>
<i>Supervisors/battalion chiefs have been witnessed not responding to high-risk calls, creating a feeling of distrust within the shift and a feeling of not being safe.</i>
<i>Favoritism feels rampant.</i>
<i>Incompetent providers are being assigned RSI capabilities.</i>
<i>Fear of retaliation is present when filing complaints against officers.</i>
<i>District revenue has not been used responsibly with wasteful spending (new boat, drone, etc.) when the funds could have been reconfigured or moved around to provide more wages to staff.</i>
<i>Communication with officers is lacking, especially when a problem arises, or a question is asked that then becomes problematic.</i>

*The attitude of “at this station, we do things differently because we can” creates a hostile environment for visiting crews...*

*EMS training is nonexistent.*

This Survey tool provided the district with a means to understand various aspects of the organization during this specific period. As stated in the introduction, the district should view this information as an internal baseline for future engagement opportunities. Conducting this survey again in the future will give the district another mechanism to see the progress being made to improving the culture, ultimately preserving the skilled workforce who aligns with the mission, values, and ethics, and who wants to work toward building a healthy and effective organization.

## Organizational Culture

Organizational culture is a collection of values, expectations, and practices that guide and inform the actions of all team members. Every organization has unique cultural aspects that are manifested in a variety of ways. Organizational culture establishes expectations of performance, customer service, internal relationships and interaction within the chain-of-command and includes how members are treated within the organization by both their peers and their supervisors. Culture dictates leadership behaviors and communication styles including the perceived value they have in the workforce. The culture of an organization is an unwritten expectation that is often difficult to assess yet critical to understand. Because culture is difficult to define, organizations may have trouble maintaining consistency in their messages about culture; and employees may also find it difficult to identify and communicate perceived cultural inconsistencies. This is especially problematic in organizations with high employee turnover.

The key to a successful organization is to have a culture based on a strongly-held and widely-shared set of beliefs that are supported by strategy and structure. An organization's culture defines the proper way to behave within the organization. This culture consists of shared beliefs and values established by leaders and then communicated and reinforced through various methods, ultimately shaping employee perceptions, behaviors and understanding. A strong culture does not focus on individuals, but on the organization and its goals; and leaders live the culture, communicate it to employees, and hold them accountable for it. An ineffective culture can significantly weaken an organization and can certainly bring down its leadership. Challenges such as high turnover, low engagement, labor management strife, and employees not being empowered to perform their jobs may all be symptoms of a negative culture.

### MIGCFD Culture

During this study, there were numerous indications to the consultants that the culture of the organization has shifted. This shift is not believed to be the result of negative organizational traits or failed leadership. On the contrary, the organization has experienced multiple challenges over the last few years, including tremendous population growth within the district and the discovery of the embezzlement of funds which unquestionably contributed to a failed referendum. The passage of this referendum would have allowed the district to address staffing needs required to manage the high call volume and meet fire and EMS national standards/best practices. This restriction of available funding for personnel has had a severe impact on the organization. The inability to maintain staffing levels consistent with a balanced work and off-duty lifestyle has made it incredibly difficult for members to be employed by the district. This has led to employee turnover, challenges in recruitment, and the inability to fully articulate and demonstrate the culture of the district for employees who have a relatively short tenure with the organization. Organizational culture is both "taught and caught" which includes both mentoring and learning by watching the example of others. In the case of the district, the filling of enough positions to cover staffing assignments has taken precedence over recruiting and hiring employees who have a strong likelihood of fitting the specific culture of the organization. Despite these significant setbacks, district administration has continued to expect a superior level of service delivery with finite available resources.

Although the consultants admire the district's superior service delivery standards, the fact remains that employees are simply exhausted due to the workload and limited staffing. Employees are having a difficult time continuing to provide a high level of service at the unsustainable pace of the current call volume coupled with maintaining physical training, high training standards, administrative workload, and other duties. This extraordinary level of expectation coupled with the high call volume and staff shortages has likely contributed to turnover. This turnover has resulted in administration making management level adjustments to help balance the lack of experience in certain ranks, which has caused confusion, challenges, and frustration within and throughout the organization, which may also be contributing to current turnover. Employees have described the organization as having "lost the feeling of family." This may be due to the shifting culture as well as the lack of tenure left within the organization. In summation, the organization is caught in a cycle that without added staffing to both cover and share the workload, substantial reductions in service levels will be required.

In these types of cases, the consulting team analyzes whether these are insurmountable issues or if they can be rectified with existing administration. In this case, there is tremendous respect by employees for the current Fire Chief and his leadership. The consulting team believes the administration team can and will incorporate necessary changes as outlined in this report. Additionally, this has already been proven by the changes implemented since the start of the study as the consulting team has shared feedback with the Fire Chief and his administration. The following sections provide areas needing immediate attention:

#### Organizational Structure

The current line officer structure is lieutenant, captain, and battalion chief. This is a recent change that has been made to bring the department more in line with the structure of regional fire agencies. The problem is that these officers do not necessarily understand their new roles, and job descriptions were not fully updated to serve as guiding documents. In addition, there is very little role specific training and mentoring focused on helping the officers learn their new roles. Also, duties and responsibilities are not being delegated to the appropriate rank. As a result, the officers feel they have diminished roles with very little authority, and higher ranks undermine the authority of the lower ranks.

#### Department of Record (DOR)

The organization spends a great deal of time doing documentation on employee behavior and performance. Supervisors are struggling to maintain the required documentation while balancing the calls for service.

In addition to this mandatory documentation, Documents of Record (DOR) are required from officers on a multitude of issues in terms of performance and operational issues that are then routed through the chain of command – even if the officer has sufficiently addressed the reason for the DOR. The DORs are then reviewed for further action. In some cases, higher ranking officers have taken disciplinary action against employees for events that were already addressed at a lower level. As a result, two (2) things are occurring:

1. There is a growing level of concern in the organization that mistakes will automatically result in discipline, instead of using mistakes as a learning/training opportunity. This concern extends to a belief that mistakes will lead to termination of employment, which adds a significant level of stress to a workgroup that is already overwhelmed by call volume and workload.
2. Lower ranking officers feel undermined in that they believe that they have adequately addressed issues, only to have higher levels of authority further address the issue in another or different manner. This leads lower ranking officers to feel that they have limited organizational authority. It also leads to the perception of inconsistencies in how issues are addressed which introduces feelings of favoritism or targeting regardless of whether the facts support this feeling.

When a senior supervisor feels that an issue needs to be addressed differently than how it was handled by a lower ranking supervisor, the senior officer should include the junior officer in the decision about how to change what has been done. This will serve as a mentoring opportunity while not undermining the authority of the lower rank.

The organization should also revamp how documentation occurs. Right now, DORs can be used for multiple purposes including commendations. However, most employees do not acknowledge this and only see DORs as a means of discipline. The district needs to make a clear distinction, both in writing and practice, what is documentation for documentation's sake, and what is documentation for the purposes of training/corrective actions (guidance and counseling) or discipline.

#### Communication

The organization holds meetings based on ranks. Some officers described these meetings as productive while others described them as less so. Following the meetings, it does not appear (based on information gleaned during the employee interviews) that information is being consistently communicated down the chain of command with employees feeling that communication is stilted at times. Feedback was provided that direct communication from the Fire Chief is welcomed and desired. The employees continually praised Chief Haney and made clear that they prefer more consistent communications delivered during regularly scheduled meetings with him. This feedback was shared with Chief Haney, and he has now instituted meetings where employees get to hear messages directly from him. He reports that this has been successful, and the meetings seem to be appreciated by staff.

## Human Resources

The Human Resource function is one of the major components of any organization. Its policies impact every member of the organization and can be an area of major litigation. The purpose of Human Resources is to ensure that managing the 'human capital' of the organization is done in an objective and lawful manner, is consistent with the mission of the organization, and fosters a positive work environment. Employees should be considered the organization's most valuable resource. The topics covered in this section will provide an overview of concerns found related to the human capital within the organization as well as related processes for improvement.

### Turnover

Employee turnover refers to the number or percentage of employees who leave an organization and are replaced by new employees. Measuring employee turnover is helpful to examine the reasons why employees choose to leave the organization.

Turnover often has a negative connotation, yet turnover isn't always a negative event. For example, desirable turnover occurs when an employee whose performance or attitude falls below the organization's expectations is replaced by someone whose performance and attitude meets or exceeds expectations. It's desirable because poor job performance and negativity can be costly both financially and culturally. Desirable turnover occurs when replacing employees infuses new talent and skills, which can be positive to an organization. Conversely, undesirable turnover means the organization is losing employees whose performance, skills and qualifications are valuable resources.

High turnover rates can negatively affect an organization and its employees in many ways. With the constant need to hire and train new employees, it is easy to veer from the true mission and vision of the organization. By retaining employees, an organization can provide a higher caliber workforce.

Employee turnover also has a direct impact on budgets. One such cost to the district is turnover cost, which is the actual financial cost to the district when an employee leaves and a new hire is brought in for replacement. Turnover can be calculated as:

**Total Payout Cost + Recruitment Cost + Replacement Compensation/Benefit Cost + Training Cost**

Turnover Costs will typically calculate around 1.5 times the cost of the original position but given the significant amount of training and equipment associated with public safety positions, turnover costs can be as high as double the cost of the original position, which is in addition to the impact to overall operations.

Because turnover is expected in every organization, and welcomed in some cases, no organization should expect a zero-turnover rate. The generally accepted industry standard for an organization is approximately 10% turnover each year. However, even a 10% turnover rate may not be a healthy

percentage if the employees who are leaving are strong performers. Healthy turnover is described as employment separation from low performers, which then cultivates an engaged and high-performing workforce.

In addition, the Bureau of Labor Statistics reports state and local government turnover rates (excluding education) at 20.2% nationwide for the year 2021. This has been consistent for the last several years. The Bureau of Labor Statistics does not isolate public safety turnover data from all other governmental positions.

In reviewing the district's turnover for the period of 2019 through June 2022, the following table summarizes the turnover per year. This includes retirement, resignation, and discharge for both civilian and sworn, inclusive of all ranks.

**Table 52: Employee Turnover Rates 2019 – 2022**

<b>Year</b>	<b>Number of Employees Leaving (all reasons)</b>	<b>Budgeted Full Time Employees</b>	<b>Turnover Rate</b>
<b>2019</b>	16	61	26%
<b>2020</b>	8	61	13%
<b>2021</b>	17	61	28%
<b>2022 (as of 6/2022)</b>	6	61	10%

2020 was a difficult year across the nation because of the Pandemic, so it not necessarily an indicator of the overall trend. However, the District has seen turnover rates as high as 28% which is cause for additional analysis. As a result, the consultants next looked at voluntary separation versus those who retired or were considered an involuntary separation (termination/discharges). The following Table is a summary of those findings.

**Table 53: Voluntary Turnover Analysis 2019-2022**

<b>Year</b>	<b>Discharge</b>	<b>Voluntary Resignations</b>	<b>Retirement/ Death</b>
<b>2019</b>	3	11	2
<b>2020</b>	2	4	2
<b>2021</b>	3	13	1
<b>2022 (as of 6/2022)</b>	2	3	1

The data shows the number of voluntary resignations is the largest contributor to turnover, (although the organization does have a high number of discharges). This would indicate there may be specific factors within the organization facilitating the spike in voluntary resignations.

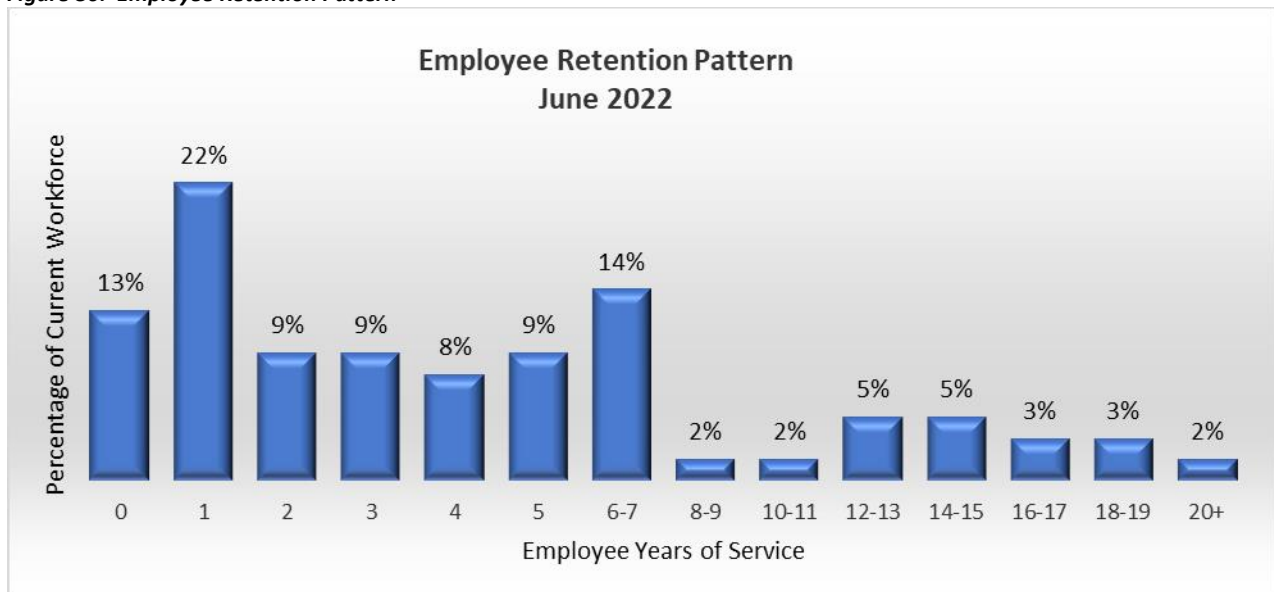
Further analysis was conducted on those employees who have separated employment with the district. It was discovered that employees who voluntarily resigned were between the ages of 22-52 at the time of separation, so it is an eclectic cross-section of demographics without pattern, including service with the

district, which spanned between 6 days-14.8 years. It should be noted that 65% of employees resigned prior to two years of service, so the district is experiencing significant early turnover, meaning they lose most employees early in their career. To determine if this is significant, the overall demographics for active employees must be identified.

## Employee Demographics

A review of the district's active employee demographics indicates the tenure of the organization ranges from new hires to twenty-two years, with an overall average tenure being 5.14 years. The national average in the public sector is currently 6.9 years (Local Government-Bureau of Labor Statistics, September 2022). This indicates that the district is below average in overall employee tenure. A review of tenure as of June 2022 is provided in the following figure. The district's pattern shows a significant loss in tenure before the completion of year two with yet another decline before completion of year seven.

**Figure 30: Employee Retention Pattern**



\*\* Rounding may not result in 100%.

This also shows 35% of the district's workforce has been with the district less than two (2) years, and 84% of the total workforce has been with the organization less than seven (7) years. This causes challenges because there is a significant gap of experience within the existing workforce, particularly for promotional opportunities and succession planning. This indicates that the district is either not able to hire personnel or it simply cannot retain personnel.

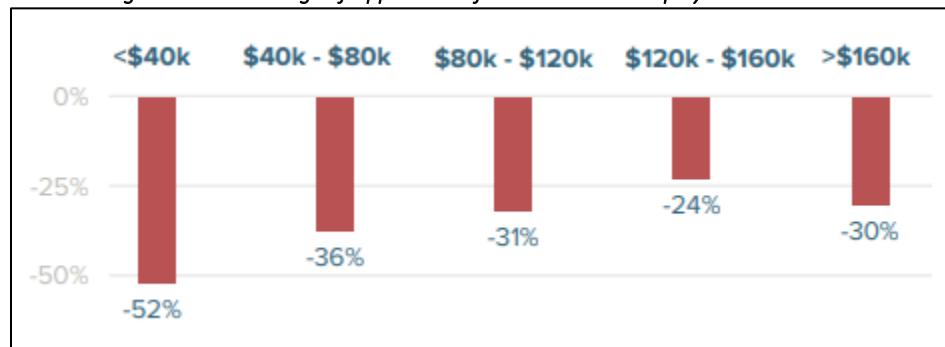
## Recruitment Challenges

According to human resource professionals across the United States, it is becoming progressively harder to hire qualified personnel. Looking at a tight labor market, recruitment, and retention of qualified personnel with the necessary skills for public service has topped the list of workforce challenges for the



last several years. In 2021 nearly 86% of human resource professionals reported moderate to significant increases in vacancies within their organizations. Between 2015 and 2021, applicant volume for government jobs has dropped 21%, resulting in a significant work gap in the public sector (Neogov Job Seeker Report 2021). As a result, all organizations should approach recruitment as the first and most important step to providing the community with a stable and professional workforce.

Figure 31: Percentage of Applications for Government Employment 2015-2021



(Source: Neogov)

*“The decline in job applications per job over the last six years is being felt across all job types and salary levels. The hardest hit are jobs that pay below \$40,000 per year, which are frequently the jobs that interface with the public and community members the most. This may unfortunately lead to a decrease in the quality of services that agencies are able to provide.” (Source: Neogov 2021 Job Seeker Report.)*

This is not necessarily a new issue, but some employers do state it has become increasingly problematic to operate. Public employers have been experiencing ongoing challenges of this nature for almost a decade. Governments historically have had a compelling proposition to offer workers with secure lifetime employment and generous health benefits followed by a robust pension for retirement, which is no longer the case. Public employers are battling for their talent because:

- Long-term employment has less appeal for the younger workforce.
- There is a real or perceived decline in public support for government workers.
- Public employers do not feel they can compete with salaries and benefits as benefits erode and the private sector is more competitive.
- There is a growing skills gap. Many government jobs now require specialized education or training. Fewer positions are ‘learn on the job.’
- Public employers are not able to offer flexible work arrangements to all employees.
- Limitations in technologies prevent efficiency and automation.
- There are limited financial resources.
- Not all work cultures are pleasing and supportive.

Compounding the public sector recruitment challenges, in 2021, as the nation re-opened following COVID shutdowns, the country has experienced continued private industry prosperity, record inflation, record retirements, and record turnover from an otherwise qualified workforce, causing all industries, both public and private, to be competing for already limited human resources. This has led employers to increase wages for all positions to help recruit and retain their talent. The effect has been substantial, and nearly every employer is experiencing recruitment and retention challenges. Many businesses report the lack of available workers and have curtailed their ability to meet current work demands. As a result, all employers, including the district, should be assessing how to be an employer of choice, and ensuring employees have a positive and engaging employment experience. This will be discussed in detail later in the report.

## Human Resource Related Processes

### Recruitment

Recruitment is a critical part of ensuring 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, so the applicant has a positive experience; so even if they are not selected, they may be drawn to apply again in the future.

From an operational standpoint, recruitment should occur as quickly as possible, while maintaining legally required and best practice standards with the recruitment process. Often vacancies will result in overtime for remaining personnel to ensure the minimum staffing levels are met. This can be challenging on operational budgets. In addition, although overtime is expected in this line of work, ongoing overtime may exacerbate burnout, decrease job satisfaction, and demotivate employees.

A recruitment strategy is a plan of action devised to help an organization with its recruitment needs. A strategy is typically targeted and outlines the strengths and benefits for working for the organization. It is more in depth than just identifying marketing sources. It considers all aspects of the hiring process to draw in the best candidates. The district does not have a recruitment strategy. A formal recruitment strategy identifies recruitment sources, target populations, target locations, information on the district and the community to market, etc. Successful recruitment is changing because traditional recruitment models are no longer effective. Currently, the district is more successful at bringing in applicants from outside the region, which can cause turnover in the future if they return home. Employees indicated that regionally, they feel the district is no longer considered an employer of choice. If this is accurate, the district will need to 'rebrand' itself and showcase what makes them an employer of choice to draw regional applicants, making recruitment strategy that much more critical. Areas of discussion should include:

- Different strategies to focus on EMS versus traditional firefighting calls.
- Diversity – Targeted recruitment and professional relationship development to align with the community it serves.

- Integrity – What should or should not disqualify a candidate, balanced with district credibility.
- Service – Emphasis on the district as a community service provider and the opportunity for employment to give back to the community served.

Discussion with employees resulted in some creative recruitment suggestions and identifying opportunities that, if showcased correctly within the community and social media sources, could make MIGCFD an employer of choice. Often, existing employees are the greatest recruitment tool available.

#### *Recruitment Process Opportunities*

It was found that the district is following a standardized process, which includes:

- Deputy Chief application review
- Reference and background check
- Written examination administered by Fire & Police Section Services
- Structured interview
- Job Related Agility Test (JRAT)
- Physical and drug test (post offer) provided through the district's occupational health provider. It was not verified by the consultants but is presumed the medical exam is conducted by an occupational health provider knowledgeable in NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments and OSHA 1910.134: Standard on Respiratory Protection.

#### *Applicant Barriers*

The district should consider an Applicant Tracking System (ATS), so the entire recruitment process is managed via a software system, with document and notation retention capabilities.

#### *Applicant Communication*

The Deputy Fire Chief is currently responsible for ensuring all applicants are notified of their status during the application process. This is not always an effective use of his time. 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
- The candidate will not be moving further along in the hiring process

This correspondence should 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.

#### *Structured Interview*

Although the Deputy Chief is responsible for interviewing, the rank of Lieutenant and above should be introduced to the hiring process for training and experience in the hiring process.

### *Job Related Agility Test (JRAT)*

The district utilizes a self-developed test called the JRAT to determine if applicants can perform the essential job duties of being a firefighter. Hiring practices that include testing components that cannot be directly linked to job functions are problematic in that they may be considered discriminatory, thereby wrongly eliminating candidates who would otherwise be qualified for the job. So only validated tests should be used, which the JRAT is not. The consultants recommend the district begin using a third-party agency to conduct candidate physical ability testing utilizing the nationally recognized Candidate Physical Ability Test (CPAT) for its hiring and annual testing process.

The Candidate Physical Ability Test (CPAT) provides for a third-party agency to conduct candidate physical ability testing utilizing this nationally recognized test. The CPAT is a legally defensible and legitimate tool for assessing eligibility for employment. In addition to being endorsed by the International Association of Fire Fighters and International Association of Fire Chiefs, the test meets validity criteria established by the federal Equal Employment Opportunity Commission, the U.S. Department of Justice, and the U.S. Department of Labor. To ensure all candidates have an equal opportunity to succeed, the CPAT includes an orientation and mentoring process that begins weeks prior to the actual test. This process involves an explanation of the test and its physical demands, recommendations of training and conditioning drills, and an opportunity to preview and practice the exercises. The CPAT examination process is open to anyone interested in taking the test. All costs associated with the CPAT testing process are borne by the candidate, but to ensure this is not a barrier to the application process, the district can reimburse new hires for this expense.

### *Personality Inventory*

A tool that may be useful to the district is the inclusion of personality testing into their process. Personality testing is used to gain insight on an applicant's interactions, personality, and behavioral tendencies. The intent is to identify the applicant's character relevant to the job. This is different from an aptitude test, which measures one's ability to do the job. Personality tests assess whether the applicant will do the job, and how, and are generally an indicator of how the person will perform. Filling positions with candidates who are the right fit may lessen turnover because they are screened out before hire.

For personality testing to be an effective instrument, the district will need to establish a baseline. Conducting the personality test on current personnel will give the district the foundation of the indicators most successful within the organization. The intent of administering this instrument to current employees is not to identify current issues, but simply to establish benchmarks for new hires going forward to better capture job suitability and culture fit.

### *Recruitment Records Custodian*

Currently recruitment documents are collected/maintained with the Deputy Fire Chief. Recruitment records include the documents and actions taken for the hiring of each position such as job

advertisements, resumes, employment applications, applicant screening and 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, including those not interviewed. These records should be retained and held by the official records custodian for proper retention/destruction. These documents must be kept for three years after a no-hire decision has been made. Records generated for those who become employees must also be retained and should be included in the district's confidential personnel records.

### Compensation

Compensation is an important component to the caliber of talent an employer can attract and retain. It is also important to avoid bias and discrimination when making compensation decisions, so establishing an objective and well-documented compensation policy that can be easily administered and defended is critical.

In reviewing the current compensation system, employees do not understand how the model is used or that a system even exists. The system does not include specialty pay for specific assignments as a reward to employees for obtaining additional training/certifications that give value to the services offered by the district. It is important to note that the consultants did not perform a compensation study, which would have been beyond the scope of this project, but some regional entrance rates were provided by administration for the consulting team to review. As stated elsewhere in the report, employees understand wages may be comparable to the region, but the profession in general may be struggling against the overall labor market, and employees do not feel wages are competitive to the level of expectation demanded by the organization. This directly related to the district's compensation philosophy.

A compensation philosophy is an organization's financial commitment to how it values its employees. The goal of this philosophy is to attract, retain, and motivate qualified people. A consistent philosophy provides a strong foundation in determining the type of total compensation package to offer employees. There are foundational aspects of compensation to assist with the development of a compensation philosophy to ensure the goals of compensation align with the goals of the organization. A few basic questions to consider:

1. What is considered a fair wage?
2. Are wages too high for the financial health of the organization?
3. Does the compensation system reflect the value of positions within the organization?
4. Is the compensation strong enough to retain employees?
5. Does the district have a defined compensation philosophy?
6. If so, is the compensation philosophy remaining in line with labor market changes, industry changes, and organizational changes?

The district is in the business of providing emergency services to the citizens, businesses, and visitors of the community. It does that through hiring qualified employees who lend their skills and talents to various positions within the organization. Without those individuals, the district cannot provide these essential services. Employees expect competitive wages for the skills, education, and responsibilities of the position, and in alignment with the organization's expectations, which may be a higher standard than other communities. To be competitive, retain existing personnel, and to successfully recruit future employees, the district needs to be highly competitive within the region. It is recommended the district determine its compensation philosophy and then establish wages and benefits that align with the regional labor market. Although the consultants acknowledge compensation is not the only reason for unwanted turnover, it is ranked as a high-level concern by employees. The consultants recommend a full compensation study be conducted and adjustments to the district's pay and benefit program be made as appropriate.

#### Timekeeping/Payroll

Fair Labor Standards Act (FLSA) overtime requirements for dual-role public safety employees differ from other single-role or civilian 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 public safety employer to choose a pay cycle from seven (7) to twenty-eight (28) days. If this provision is used, the employer is required to establish a written work period to calculate compensation. This policy should be clarified in the district's Employee Handbook.

In addition, it is important that all employees understand that it is their responsibility to ensure additional work assigned away from the normal work schedule must be included on timesheets for the approval and payroll process to ensure proper and timely compensation occurs.

#### Personal Cell Phones

During employee meetings, communications were occurring between supervisors and subordinates. One area of concern with this practice is that personal cell phones used for work purposes may be subject to subpoena, potentially causing the release of personal information of employees. The practice of employees utilizing personal property to conduct district business is inadvisable. The consultants recommend that the District consider issuing district-owned cellular phones to those employees who require them as part of their assigned job duties. Officers should then be educated to ensure that those who hold positions that do not require district issued cell phones should not be using their personal device for official work purposes.

#### New Employee Onboarding

Onboarding or new employee orientation should be viewed as an extension of the recruitment process. A standardized onboarding process helps the district with better employee engagement and employee performance and retention, because it is the employee's first impression of the organization as an

employer. Onboarding is necessary to educate new employees on rules and regulations, roles and responsibilities, the organization's culture, values, and allows the new employee the opportunity to make connections with co-workers.

The onboarding process can be time-consuming and overwhelming for a new employee, so that must also be considered. It is not uncommon to provide materials to new employees in advance of their first day and break the orientation session into multiple phases for optimal retention of information. A suggestion related to the onboarding process is the following:

1. Pre-Hire: Provide all payroll-related forms and I-9 document information sheet to the new hire in advance of their first day of employment. In addition, provide benefit information/options, the Employee Handbook, harassment policy, ethics information, and any other major policy important for Day 1 of employment. Employees should have an instruction sheet related to these materials and be told to bring the packet with them on their first day. Many organizations are providing this information electronically, which gives the employees an opportunity to review some of the materials in advance of the first day.
2. Date of Hire Orientation (Orientation Session 1): Administration should review all completed forms, finalize the I-9, discuss benefit options, time off, timekeeping information, the Employee Handbook, and all major policies that were sent in advance. This review should include harassment and discrimination policies, and any others deemed critical by the district. Information Technology should be included in this orientation to introduce employees to email, software systems, ID badges etc. The district should also introduce the employee to the organizational structure and strategic priorities. It is important to remember, orientation days often suffer low memory retention, so this first day should not be overwhelming. It should cover the initial requirements, liability-type policies, benefits, and some basic information about the organization.
3. Follow up Orientation (Orientation Session 2): Follow up orientation sessions should occur 3-5 weeks after hire. During this session administration can review training compliance with the employees to ensure they are on-track, answer questions about topics previously addressed to ensure information is retained and begin to introduce new topics such as performance management, organizational values, communication tools, wellness/EAP, and other additional training topics. This second session will be shorter than Orientation Session 1 and should be considered as a check-in session to see how the employee is doing. This is also a good time to introduce executive leadership into the process.
4. Follow up Orientation (Orientation Session 3): Employees should attend this session 7-9 weeks after hire. The administration can then answer questions about topics previously addressed to ensure information is retained, as well as other questions that employees may have. This will be a simple scheduled check-in meeting. The district can use this time simultaneously with operational training check ins.

### Job Descriptions

Job descriptions are communication tools used to explain to employees the required education, skills and levels of performance required for their position. Minimum qualifications assist in screening for recruitment including the listing of promotional requirements designed to assist the employee in understanding what will be needed to attain higher ranking positions within the organization.

Job descriptions should delineate responsibilities, not only operational skills, but also management and leadership skills required for the positions. Applicants should also be asked to acknowledge they can perform the prescribed duties of the position. Job descriptions should be utilized not only in the hiring process, but also the promotional process.

When reviewing the district's job descriptions, not all have revision dates listed, so it is not clear how old the job descriptions are and when they were last reviewed. Considering the feedback from the Officer level, these documents should be updated as soon as possible. To keep job descriptions updated, it is recommended that during employee performance evaluation sessions (to be discussed), the job description should be reviewed for completeness and any changes needed should be noted. In this way, the job description becomes a living document.

### Performance Management

Performance appraisals are among the most valuable and important tools available to a supervisor. Evaluations/performance appraisals are essential to provide meaningful feedback and improve employee performance. When handled effectively, these reviews can help close the gap between what employees do and what administration needs them to do. Performance discussions can also assist in the retention of employees. Employees who feel engaged, understand their contribution to the organization, and feel respected are more often likely to stay.

The district should reinstitute a formalized performance review process (annual reviews were conducted prior to COVID). The district should introduce a simple evaluation system that not only provides feedback on operational performance, but one that also looks at the establishment of goals and professional development. Development of employees internally will assist in retention and succession planning. In addition, an evaluation process should also be developed for new members and completed more frequently until there is consistent performance in all areas of expectation.

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 an employee's performance in all areas is reinforced and supported. These discussions should identify and leverage opportunities to utilize the employee's greatest strengths and address performance deficiencies immediately. This means the organization should have between 2-4 formal check-ins with employees during the year. In addition, the process provides an opportunity to discuss career and professional development opportunities and help guide those who wish to be promoted. This will greatly



benefit the district for effective succession planning and employee development. Lastly, these meetings are a perfect opportunity to obtain information from the employees such as “why they like working for the district” and “things that they would like changed.”

### Promotion

The district updated its promotional process in 2021. This included qualifications for each promoted rank. A memo notification was sent to employees in May 2021 outlining these changes and to objectively identify the qualifications and tests necessary for standardized processes going forward. The district’s promotional process is outlined in SOG 104. The changes to the promotional process were not universally accepted, as some employees believe these changes would have a negative impact on their promotional opportunities. The district has been increasingly challenged with promotions, given the lack of tenure in the organization, so significant time is needed by administration to build up and mentor employees who seek promotional opportunities over the course of the next several years.

### *Promotional Process Opportunities*

As with recruitment, there are opportunities to improve the current promotional process.

1. Ensure job descriptions are updated annually, are available to employees, and provide advanced notification of changing qualifications to accommodate test/material changes.
2. Although the Fire Chief and Deputy Fire Chief is currently responsible for interviewing, the ranks of battalion chief and captain should be introduced to the promotional process in order to garner their input as well as provide a level of succession planning experience and development. Even with the addition of these personnel, it must be understood that the final determination on promotion rests with the Fire Chief.
3. The district should continue the use of an assessment center process for the testing of each rank. It is highly recommended that outside assessors are used to evaluate candidate during an assessment center process.
4. Run promotional testing annually, even if no openings are expected, to allow interested employees that meet the qualifications the opportunity to participate, and better understand the process. This also helps the Command Staff identify who may be interested in a future promotional opportunity.

### Discipline

As stated in a separate section of the report, the employees have a negative view of the DOR process. It is also unclear to employees exactly what constitutes discipline. They repeatedly complained that discipline is not consistent and does not follow a system of generalized standards. This may be due in part to the overall lack of understanding related to the DOR process. As explained to the consultants by administration, a DOR may result in guidance/counseling, but that does not mean that it is a disciplinary document.

In the consultant's experience, it is unusual to find counseling sessions with an employee to be considered a level of discipline. Counseling or coaching events are just that – counseling, which is used to explain (in a non-disciplinary manner) performance expectations or to advise the employee of a needed course correction before discipline is needed. Counseling should be documented to memorialize the discussion, but it should not be considered a step of progressive discipline.

The investigative process on matters which may result in disciplinary action is currently the responsibility of the Deputy Fire Chief. The results of the Deputy Chief's review are then given to the Fire Chief, who may do additional investigating before imposing discipline.

To ensure the organization meets a consistent standard for discipline, it is recommended the district utilize the Seven Tests of Just Cause. These are set criteria/guidelines developed out of arbitrations across the United States to apply facts to each case to ensure the employer has met the Just Cause standard. The seven steps are as follows:

1. Reasonable Rule or Work Order: Is the rule or order reasonably related to the orderly, efficient, and safe operation of the district?
2. Notice: Did the employee receive adequate notice of the work rule or performance standard and the possible consequences of failure to comply?
3. Sufficient Investigation: Did the organization conduct a documented investigation before deciding about taking disciplinary action?
4. Fair Investigation: Was your investigation fair and objective?
5. Proof: Did the investigation find proof of misconduct or of a performance discrepancy?
6. Equal Treatment: Will the proposed discipline be consistent and equal with how other employee have been treated, and applied without discrimination?
7. Appropriate Discipline: Is the proposed discipline appropriate?

Step 6 requires the organization to assess whether the rules and penalty were applied consistently across the organization, meaning similar infractions are penalized consistently and objectively. A disciplinary matrix that outlines the expected disciplinary path for many infractions is also critical to better ensure consistency.

The district is recommended to adopt a progressive disciplinary approach which excludes coaching as a form of discipline. Coaching is an employment measure prior to disciplinary action and may be presented to the employee in verbal or written form. If the coaching is presented in verbal form to the employee, the supervisor shall document the date and details of the verbal coaching. All coaching actions should be retained in the employee's personnel file.

Disciplinary action means an employment action that results in one of the following forms:

- a. Verbal Warning: A disciplinary verbal warning is an oral statement made to an employee indicating the employee's conduct or performance fails to meet an acceptable level and expected improvement. Verbal warnings are documented.

- b. **Written Warning:** A disciplinary written warning is a written statement made to an employee indicating the employee's conduct or their performance fails to meet an acceptable level and expected improvement is required. It also details further discipline should the action or similar action occur again.
- c. **Disciplinary Suspension:** A disciplinary suspension is the temporary removal of an employee from his/her assignment without pay for disciplinary reasons. The number of days of the removal shall be determined by the Fire Chief and shall be based on the circumstances of the violation.
- d. **Disciplinary Demotion:** A disciplinary demotion is the permanent removal, for disciplinary reasons, of an employee from the employee's current assignment to an assignment in a lower classification resulting in reduced pay.
- e. **Discharge:** Discharge from employment for disciplinary purposes may occur. Discharge does not include paid administrative leave, layoff, reduction in workday, reduction in workforce, job transfer or reassignment, retirement, death or the end or completion of temporary employment.

Finally, the administration is encouraged to include lower supervisory ranks, as appropriate, to be part of the process for professional growth and development. Currently, the administration maintains information on a "need to know" level. There are circumstances when the employee's battalion chief and even captain should have an understanding of what is occurring so they can be part of the corrective action and growth and development process.

#### HR/Management Training

Training is an investment in not only employees but also in the entire organization. Training opportunities not only teach a skill, but they are also a means of meeting regulatory or legal requirements. Employment litigation is often a result of actions or statements of a supervisor, simply because they are not trained in how to address various situations in the workplace. Officers were asked if they felt prepared for their role, and while they acknowledged that they are prepared operationally, they do not feel prepared administratively. It is important that employees in management/administrative roles have sufficient "tools" in their toolboxes to address these issues in a manner that minimizes liabilities to an organization and to ensure each employee will be successful in their respective roles. Topics of interest may vary from new supervisor topics such as coaching, conflict resolution, performance management and documentation; to HR topics such as employment law and compliance with FMLA, ADA, harassment, civil rights, etc. The more educated supervisors are in these areas, the more effective they are in their roles, and the less likely they are to respond improperly to a personnel issue that could put the district in a vulnerable defense position. Although the district has a robust training program, not all relevant HR topics are part of the training program.

The district is recommended to establish a regular schedule of training topics for its officers and command staff positions, but this may also benefit employees who are interested in developing their skills for future promotional opportunities. Those topics should incorporate management topics, employment law and compliance topics, but could also expand to other areas the district may deem critical for managers such as budgeting and strategic planning. Employees who are not trained may not understand the legality

behind certain statements or actions, which makes this a liability. Therefore, it is recommended all supervisory positions receive basic training in employment law, interviewing, performance management, documentation, and discipline as soon as possible. Every supervisor should be required to attend a pre-determined number of trainings each year, based on their rank. The following are potential subjects for management training.

**Table 54: HR/Management Training Topics**

<b>HR/Management Training – Topics</b>	
Change Management	Management vs. Leadership
Coaching	Managing Differences
Conflict Resolution	Motivating and Influencing
Delegation	Negotiating
Discipline	Performance Management
Diversity and Inclusion	Principles of Supervision
Effective Communication Skills	Problem Solving
Employee Engagement	Project Management
Employment Law	Strategic Thinking
Ethics	Team Building
Fair Labor Standards Act	Time Management
Family Medical Leave Act	

#### Personnel Policies

Personnel Policy Manuals/Employee Handbooks are a summary of information about an organization that will often include administrative procedures and employment-related policies. These documents cover 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.

MIGCFD has an Employee Handbook, last revised in 2014. Employees are provided an Employee Handbook at time of hire and sign an acknowledgement of receipt. The Handbook is outdated and is missing critical topics. Having outdated policies in place can be as much of a liability to an organization as having no policies at all. The district has also introduced new topics to the Standard Operating Guidelines (SOG) that should be included in the Employee Handbook.

Operational, Maintenance, and Training SOG's should be determined by the fire service subject matter experts. Policies that provide guidance to personnel and administration related HR subjects should be determined and developed by HR subject matter experts. The district would do well to contract with an HR professional to develop an Employee Handbook that meets current standards of practice including all applicable laws and standards.

### Wellness/EAP

The district currently utilizes a confidential Employee Assistance Program (EAP) and a regional crisis debriefing group, if needed. Although when asked, this information was not publicly displayed, and some employees believed you needed to see a Division Chief of Training for that information. Given public safety personnel continuously put their lives in jeopardy and respond to stressors most citizens do not experience, ensuring employees have support is critical so the district. Every employee should be able to access this service confidentially, so this is information that should be available in multiple areas and in all stations. Officers should incorporate this topic into meetings and training, and during normal check-ins with employees so it is a common and recurring discussion item, and not one that brings discomfort when brought up.

### Records Management

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 and State laws require that certain employee information be maintained, certain basic records should also be retained to avoid errors of memory and provide information to make management and human resources decisions. During the onsite review, multiple personnel files were randomly selected to gauge the file management system. This is an area which needed to immediately be changed. The recommended file management structure was provided to administration to incorporate immediately. The recommended file management structure is as follows.

**Table 55: Recommended Personnel File Structure**

<b>MAIN EMPLOYEE FILE</b>
Acknowledgement of employee handbook
Acknowledgement of policies/policy revisions
Application Materials
Certifications, licences, transcripts, etc.
Official performance documentation (memos, letters, 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)
<b>SEPARATE PAYROLL FILE</b>
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
<b>SEPARATE MEDICAL FILE – MANDATORY SEPARATION</b>
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.)
<b>SUBJECT FILES – MANDATORY SEPARATION OR BEST PRACTICE SEPARATION</b>
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

## Human Resources Staffing

The focus of Human Resources (HR) varies based upon the size and structure of an organization, the organization's understanding, and acceptance of the role of HR, and the strengths of the staff. The district does not currently have an HR professional on staff, but given the size and complexities of the organization, it should. Rather, the HR functions are distributed out to multiple sources. This system is called a decentralized system, meaning specific positions manage parts of the systems themselves.

### Current Human Resources Structure

Currently, the Fire Chief provides the strategic HR functions to the district, inclusive of wage and benefit policy recommendations, HR policy recommendations, assisting command staff with employee relations concerns, etc. The Deputy Fire Chief coordinates recruitment efforts, promotional processes, performance management, employee relations, and discipline. The administrative assistant will onboard a new employee covering the payroll processing, benefit enrollments/changes, policy acknowledgement, etc. The administrative assistant also maintains all official personnel records. The district does not have a third-party HR consulting service but will request assistance from the district's legal counsel as needed. Command staff below the Deputy Fire Chief participate in the documentation of performance management, employee relations, and record retention.

Overall, Human Resource functions are being accomplished, although this is being accomplished by employees that do not have expertise in HR or are at full capacity with their primary responsibilities; and perform these HR functions as a secondary role.

#### Recommended Human Resources Staffing

Currently in the United States, the median HR to employee ratio is 1.4 HR staff to 100 employees served. This ratio, however, may fluctuate based upon standardized processes, software capabilities, and outsourcing various HR functions. It must be stressed that HR functions across organizations differ in terms of centralized/decentralized recruitment processes, involvement with payroll, workers compensation, training, employee relations, etc. Therefore, comparative information will not necessarily reflect identical HR services provided by comparators but is simply a tool to assist with staffing planning.

The district currently is authorized for 62 FTE (volunteers are excluded from this count). This puts the districts' current need for dedicated HR between three-quarter to one full-time status position. Given that additional personnel are recommended, and the current human resource needs within the organization, the district is recommended to bring on a full-time human resource professional to lead the HR functions. This position will need to immediately focus on retention, employee engagement, and recruitment strategy and marketing; and will need to be a hands on/on-site advisor to administration as well as being actively engaged with all district personnel.

The human resource professional position is recommended to be a district employee position, reporting directly to the Fire Chief. This position is recommended to have a bachelor's level education with public sector HR experience, preferably with public safety, although the district may consider equivalent experience for an associate degree level. The typical duties of this position would be as follows:

- Recruitment and marketing
- On-boarding/orientation, benefits enrollment/changes
- Leave administration
- Performance Management
- Promotional processes
- Worker's Compensation/Safety
- HR Policy development
- Employee recognition
- Job descriptions
- Personnel records and document retention
- Employee relations in conjunction with the Fire Chief and Deputy Fire Chief

An experienced HR professional should also be able to take on the following topics:

- Compensation and benefit program administration
- Investigations/Discipline
- Inhouse HR Topic Training for management/administration

#### Savings to the District

Human Resources would be considered an internal service provider to the district. It is not a revenue generating position, nor does it provide a direct service to citizens. Therefore, the effects of adding personnel for this purpose are not easily measured. However, a meaningful investment to the organization is an investment to the community. While it is difficult to put a tangible savings amount on this position, the district will gain the following:

- Ability to effectively address compliance items with State and Federal regulations, reducing the risk of penalties and financial damages for non-compliance.
- More efficient internal processes, which eliminates duplication of effort, reduces the amount of time administration and command staff spend on HR functions so they may focus more on their respective operations, and places the responsibility of HR functions with the staff who are trained in human resources.
- A more efficient and focused recruitment process to save time and recruitment costs. These processes will also be updated to minimize the risk of discrimination and unfair hiring practice claims if properly followed.
- A positive and effective recruitment experience for applicants, which can be a deciding factor in job acceptance/retention.
- Ensure all employees are onboarded and out-processed consistently, ensuring legal compliance; ensuring all employees are educated/trained on critical topics that will further minimize employment claims and improve employee satisfaction.
- Objective employment processes, which minimize risk of claims for discrimination if properly followed. These objective processes also cover documentation and retention for compliance as well as support defense of claims under the ADA, ADEA, Civil Rights, etc.
- Improved training for management to be a stronger management team and reduce risk of employment related claims from applicants as well as subordinate staff.
- Time to review, assess, measure, and problem solve organizational issues as it relates to compensation, turnover trends, and recruitment analysis. Being able to identify root cause issues requires the district to maintain data and metrics for analysis prior to offering recommendations. Analysis can lead to reduced turnover, higher quality applicants, faster recruitment, and improved employee relations.



## Staffing

Based on the analysis conducted and documented in the sections of this report titled **Emergency Activities Data** and **National Standards Compliance**, it is clear that the district is significantly understaffed and on the verge of not being able to provide reliable and timely emergency services to the residents, businesses and visitors of the district. With the current staffing levels, the district is unable to meet staffing standards consistent with NFPA 1710. Additionally, due to the number of overlapping incidents and the number of times the district is at Level Zero related to available ambulances (which is more than 200 times per year) an additional full time / 24 hr. ambulance is required to meet service demands. The challenge is that due to the recently failed tax referendum the district is unable to obtain sufficient reoccurring revenue to cover the costs associated with the additional personnel.

Compounding this lack of staffing is the huge employee turnover within the district. This is made worse by the nationwide paramedic shortage and the ongoing challenge of finding personnel interested in a fire service career. The district is taking bold steps in recruitment and pushing boundaries related to hiring EMS only personnel and varying shift scheduling/rotations. Even with these steps, the fact remains that not enough dollars are available to adequately pay for all positions needed.

## Overtime

Due to the challenges with staffing, the district is working employees to the extreme. Overtime is required daily and usually in multiple numbers. So far, the district has not yet used mandatory overtime since administrative staff have sometimes worked shifts to avoid mandating an employee callback. The district has browned out a company to avoid mandatory overtime. This browning out of a company makes the short-term staffing situation worse. It avoids calling a member back for forced overtime but also placed an increased stress on those working coupled with the fact that the district already operates with a non-compliant staffing level related to national standards.

Due to the workload and overtime, it is not uncommon for staff to be severely sleep deprived, especially those assigned to the ambulances. This also includes those who are working multiple overtime days to provide coverage. Many district personnel regularly work a 48-hour shift with only 24 hours off before coming back and repeating the cycle. This is simply not enough time to recover. This work schedule has both a detrimental impact on the employee's health as well as their home life. Several employees reported that overtime is causing severe burnout.

The number of hours employees are working coupled with sleep deprivation is having a profound impact on the organization's morale. There is also significant scientific evidence that chronic sleep deprivation leads to:

- Increased risk of diabetes
- Increased risk of heart disease
- Increased risk of hypertension (high blood pressure)

- Increased risk of metabolic syndrome
- Increased risk of obesity
- Increased risk of immune system compromise
- Increased risk of alcoholism
- Increased risk of cancer (breast, colon, ovarian, prostate)
- Increased risk of depression and mental health concerns

All these conditions result in an overall decrease in life expectancy.

Studies from the American Ambulance Association have linked decreased rest with increases in patient care errors, medication administration mistakes, missed cardiac rhythm interpretation, and patient assessment and diagnosis mistakes. Studies on fatigue also show cognitive reactions like those seen with alcohol consumption.

- Staying awake for 18 hours corresponds to a Blood Alcohol Concentration (BAC) of .05
- Maintaining wakefulness for a full 24 hours equates to a Blood Alcohol Concentration of .10, which is over the legal limit of .08.

There is well-documented research linking the number of hours worked with the following:

- Increased sick leave usage
- Increase in called maydays (53.6% are called by firefighters working overtime)
- Increase in worker's compensation claims
- Increase in traffic crashes

Looking at information gleaned through employee interviews, results from the employee survey, and the overall data analysis conducted as part of this study, the consultants believe that there is a direct linkage between employee turnover, complaints of moral issues, and recruitment challenges that are based on staffing concerns. Using overtime as a staffing solution does not consider the human cost to families, fatigue, stress, or even potential injury to patients or district personnel.

Likewise, future public safety personnel are not interested in an unbalanced work – life schedule. Looking at Generation Z Employees (current age 21 – 25) relating to what characteristics and what they desire in an employer, it becomes obvious that our incoming workforce will find it difficult to work in an organization with rampant overtime. Organizations that do not provide a balanced work – life schedule will not be employers of choice and incoming candidates will look for a different organization that better aligns with their job and lifestyle needs.

**Table 56: Characteristics of Future District Employees**

<b>Generation Z Employees (Age 21 – 25)</b>
Nearly half (48%) are racial or ethnic minorities.
Ideal job is one that offers in-person work with flexibility.
They witnessed the Great Recession and what it did to their parents’ jobs and homes.
They’re living through a global pandemic that has led to record unemployment, and political and civil unrest.
They want to work for organizations that can provide them security and stability.
They have a sense of purpose.
They want detailed instruction (YouTube Generation).
They are cautious and skeptical and aren’t afraid to question.
They are adept at deciphering between what’s fake and what’s true.
Mental health is a high priority.
A balanced work life is imperative.
It is important that they work for a values-based organization.

It is imperative that the district address this overtime issue and hire additional staff. To do this however, the district will need to garner support to pass a tax referendum.

### Coverage for Leave Time

Minimum staffing levels allow a reduction from 18 personnel on duty (maximum staffing) to a possible low of 16 personnel (minimum staffing). This policy theoretically allows for two full-time employees to be off duty at any given time. It is important to note that based on the district’s current leave time accrual policy there are not enough personnel assigned to each shift to cover leave time.

As an example, a 24-hour employee works 120 shifts per year. If this employee has a tenure of 5-8 yrs., they accrue 18 leave time shifts annually. This reduces their actual shifts worked to 102 per year. For purposes of this example, let’s assume that all 18 personnel assigned to the shift receive 18 leave time shifts annually. This equates to 324 shifts needing to be covered. With a shift staffing level of 18, there are only two available personnel that can be used to cover leave time vacancies before the district drops below the minimum staffing level of 16. These two personnel can only cover 204 shifts thereby leaving 120 shifts uncovered. At current staffing levels, these 120 shifts must be covered by overtime. The problem is exacerbated as employee tenure increases since those with more tenure accrue more annual leave time (maxing out at 21-shifts).

The simple reality is that the district does not employ enough firefighters to maintain company staffing levels and cover for the generous leave time policy offered to employees. To compensate for this issue, the district allows annual leave time buy-back since it is clear based on operational policies and staffing levels that personnel will not be able to utilize their accrued annual leave.

Annual Leave is employer provided paid time off. It is a benefit that allows employees to have uninterrupted time away from work and allow themselves the opportunity to recharge. For any position, regardless as to whether it is public safety or not, it is important to take time away from work. Some of these reasons are as follows:

1. Improved productivity: When burnout starts, even the simplest of tasks becomes a challenge, and we lose some of our drive/motivation.
2. Better balance between work and personal life: When you are chronically overworked, you can start to lose your sense of self. Hobbies and interests fall to the wayside as you focus all your energy on your career. Taking time away from work gives you a chance to revive what makes you happy.
3. Improved focus: No matter how much you love your job, doing the same thing day in and day out can negatively impact anyone. Taking time away gives you the chance to refocus on your goals and gain a fresh perspective.
4. Better relationships: While it is important to focus on your career, you also need to work on your relationships or the important people in your life will start feeling neglected. There is a noted high divorce rate among public safety personnel.
5. Better health: Time away from work reduces stress by removing people from the activities and environment that they associate with stress and anxiety. With the increase in awareness of suicide, mental health is a vital issue to a successful career in public safety.

When one adds the fact that public safety personnel continuously put their lives in jeopardy and respond to stressors most citizens do not experience, ensuring they have support and time away from work is even more critical. Given the additional high level of expectations and current work demand in this organization, allowing the employees a paid time off benefit that has been earned is even more important.

To address these issues, and allow personnel to utilize their accrued leave time, shift staffing needs to be no less than twenty (20) personnel to maintain a minimum staffing level of sixteen (16). This number reflects the current staffing model and does not account for the need to add an additional full-time ambulance or comply with NFPA standards. This number is shown later in the report.

## **Battalion Chief Downgrade**

The Battalion Chief position was created January 1, 2021. Since its inception, the unit has been staffed 89% of the time. This equates to it being unstaffed 1,594 hours out of a possible 14,424 hours or 66.4 days out of 601 days.

The battalion chief position is a critical role within the district. It bridges the gap between administration and shift personnel and serves a vital role in the overall command staff structure of the organization. Battalion Chiefs serve as the incident commander at multi-company incidents and become the “outside” eyes who establishes the overall strategy for mitigation and coordinating the work of the company officers who are leading their personnel operating in the hot zone. In the opinion of the consultants, the battalion chief position should always be filled with either a commissioned chief officer or a captain acting in this

capacity. It is the consultant's opinion that not having this position filled results in a firefighter safety issue.

## Recommended Shift Staffing

Recommended staffing levels are developed to address four critical areas:

1. Reduce overtime by providing enough personnel per shift to cover leave time vacancies as well as sick leave. The current policy that allows the carrying over of leave time needs to be changed to encourage personnel to take the totality of their annual time.
2. Ensure staffing levels that are consistent with NFPA 1710 for the most common structural fire responses encountered by the district. The recommended staffing numbers will not bring the district into compliance related to high-rise response levels, but the consultants believe this is acceptable due to the limited number of fires in these structures as well as codes that address automatic alarms and sprinkler requirements. The consultants further recommend the development of an automatic aid response protocol for high-rise buildings thereby immediately seeking assistance from neighboring jurisdictions for fires in these unique structures.
3. Provide sufficient personnel to add an additional full-time 24-hour ambulance (four total ambulances).
4. Provide sufficient personnel to ensure that a battalion chief is working each 24-hour shift and the position is never downgraded or unstaffed.

### Recommended Minimum Apparatus Staffing Levels

Instead of focusing staffing levels on the number of personnel assigned to each shift, the consultants recommend moving to a company level staffing model. This model works to ensure that enough personnel are assigned to each company to be able to operate in most instances as a single unit without the immediate assistance of another company. Based on the high and increasing call volume of the district, this factor is important to address the needs of those calling for assistance without waiting for help from a company responding from another fire station. The recommended staffing levels per company are as follows:

- Truck Company – Officer, Engineer, Two (2) Firefighters
- Quint Company – Officer, Engineer, Two (2) Firefighters
- Engines – Officer, Engineer, Two (2) Firefighters
- Ambulances – Paramedic and EMT (or second paramedic)
  - *If these personnel are to be counted as part of compliance with NFPA 1710 they need to be cross trained as firefighters.*
- Battalion Chief

Transitioning to a company staffing model, the daily shift staffing moves from a minimum of sixteen (16) to a minimum of twenty-five (25).

To cover leave time and sick leave vacancies, each shift will need to have between twenty-nine (29) and thirty (30) personnel assigned. This will substantially reduce overtime, thereby addressing the detrimental impact of personnel working extended hours. It will also provide staffing levels consistent with a high-performance fire / EMS / rescue organization. It will also allow sufficient personnel to be dedicated to water rescue incidents while maintaining a level of staffing sufficient to handle most other overlapping calls within the district.

To accomplish this level of staffing, using the standard multiplier of \$100,000 per new firefighter (includes salary, employer paid benefits, employer paid pension/retirement benefits, workers compensation insurance, etc.) the district will need to pass a referendum that will garner between 3.3 and 3.6 million in additional revenue. This will be a “first year number” which will escalate over time.

It is also important to recognize that as the district builds additional stations and adds additional fire companies, the staffing levels identified about will need to be maintained (i.e., four (4) person fire companies).

As a general rule, when a single ambulance company (or other fire company) begins handling on a regular basis, ten (10) calls within a 24-hour shift, serious consideration should be given to adding an additional company. This is based on the following time use analysis:

**Table 57: Analysis Standard – When to add an additional company**

<b>Ambulance Company Time Use Analysis</b>		
<b>Type of Work</b>	<b>Hours Involved</b>	<b>Total Hours Per Shift</b>
<b>Ambulance Call</b>	1 – 1.5 hrs. per call	10 – 15 hours
<b>Training</b>	2 hrs. per shift (ISO Standard)	2
<b>Physical Training</b>	1 hr. per shift	1
<b>Apparatus checks, daily equipment maintenance, stocking/supply management, etc.</b>	1 hr. per shift	1
<b>Station Duties</b>	1 hr. per shift	1
<b>Total work hours (excluding meals, breaks, and sleep)</b>		<b>15 – 20 Hrs.</b>

#### [Fire Marshal’s Office – Staffing](#)

A review of the workload associated with the Fire Marshal’s office indicates that on average the personnel conduct approximately 1400 inspections annually. This equates to 27 inspections per week. If it is assumed that each inspection takes a minimum of 1-hr including any needed documentation, this only leaves between 8 – 10 hours for follow-ups, repeat inspections due to violations, and larger more involved inspections. As the district continues to develop, the number of inspections will increase. Due to this workload, coupled with the fact that the Fire Marshal’s Office also conducts fire cause and origin investigations and plays a role in public education including the installation of smoke detectors, the

consultants recommend the hiring of an additional full-time deputy fire marshal to assist with the workload and to provide leave time coverage when one of the two current fire marshals are out of the office.

## Financial

The district operates on a calendar year financial schedule. The 2022 operating budget is \$7,120,488 which includes \$219,983 spending from reserve funds and a (\$15,505) deficit between revenue and expenses. In other words, the cost of providing services exceeds annual revenue.

The district's primary source of reoccurring revenue is property tax. The property tax is based on a millage rate of .01400. Additional revenue is garnered through impact fees, ambulance contracts with Georgetown and Horry Counties, and a variety of miscellaneous service fees.

The current debt load of the district is:

- 1.2 million: current outstanding
- 2.1 million: commitment for apparatus purchases (i.e., apparatus currently on order)

## Revenue

### Millage Rate

In South Carolina, property tax rates are expressed in mills, which is equal to \$1 of tax per \$1,000 in assessed value. The South Carolina Constitution provides for the following ratios to be applied to the market or use value of property to arrive at the assessed value:

- Home (legal residence) 4%
- Second home 6% (or any residential property where the owner does not reside)
- Agricultural real property (privately owned) 4%
- Agricultural real property (corporate owned) 6%
- Commercial real property 6%
- Manufacturing real and personal property 10.5%
- Utility real and personal property 10.5%
- Personal property 10.5%
- Railroads, airlines, pipelines, 9.5%
- Real and personal property vehicles 8.25% (vehicle ratios reduce each year to 6%)

An example provided by the State of South Carolina on how millage rates are applied is as follows:

\$100,000 Fair market value of home x 4% Assessment ratio equates to:  
\$ 4,000 Assessed value x .250 Millage rate (250 mills)  
Annual taxes due = \$1000

Comparable millage rates for the area:

- Georgetown County
  - Fire District #1 (County) Fire .032100
  - Fire District #2 (Midway) Fire .013800
  - **Fire District #3 (Murrells Inlet / Garden City Fire .01400**



- Horry County
  - County Fire Apparatus Replacement .0160
  - Fire District Unincorporated Areas .02110
  - **Murrells Inlet Fire District Fire .01400**

### Impact Fees

In addition to the mill rates, the district charges impact fees on new construction:

- 1% Residential
- 2% Commercial

Act #272 of 1985 as approved by the General Assembly of the State of South Carolina reads:

*In addition to the powers and duties provided for the governing body of the Murrells Inlet-Garden City Fire District in Georgetown and Horry counties by Act 876 of 1966, the Board may impose, one time only, an impact fee on all buildings under construction on the effective date of this act and all new construction and all new additions. The fee is one percent of the cost of construction of single-family residences and two percent of the cost of construction of condominiums and townhouses, high rise buildings, and all commercial construction. The fees must be used to purchase and maintain firefighting equipment.*

The Act was amended in February 2006 amending the last sentence to read as follows:

*The fees must be used to purchase and maintain firefighting equipment and to construct a facility or building in which to house or store firefighting equipment.*

Impact fees are based on the cost of construction as declared by the owner or general contractor or as calculated by a method generally practiced and approved for use by the building official. The district updated its Fire Impact Fee Administration Manual with the board adopting the manual on August 22, 2022. The manual is attached as **Appendix I**.

Act #272 does not allow impact fees to be used for the cost of personnel and is restricted to equipment and facilities. The 2022 budget includes 1.3 million of impact fee revenue slated to fund the following:

- Motor Vehicle Fuel
- Supplies and Equipment – Hazardous Materials
- Supplies and Equipment – Hose and Nozzles
- Supplies and Equipment – Extrication
- Repairs and Maintenance – Training Facility
- Supplies and Equipment – Radios and Pagers
- Supplies and Equipment – Firefighter PPE
- Repairs and Maintenance – Buildings
- Repairs and Maintenance – Equipment

- Repairs and Maintenance – Radios and Pagers
- Repairs and Maintenance – Vehicles
- Supplies and Equipment – 1<sup>st</sup> Responder
- Supplies and Equipment – Firefighting
- Security Cameras
- Storage Building – Station 79
- Drone
- Hose
- Extrication Equipment
- Water Rescue Equipment
- Inmar Inflatable
- Two (2) Yamaha 25 hp Outboard Boat Motors
- EMS Chiefs Vehicle (Replacement)
- Training Chiefs Vehicle (Replacement)
- Two (2) Medic Unit Remounts
- Dept Payment (Interest and Principal)

Once the district becomes fully built out, impact fee revenue will become limited, forcing the district to rely primarily on income generated by the millage tax.

#### Ambulance Service Contracts

The district has contracts with both Georgetown and Horry Counties for ambulance service. These contracts provide a supplement to cover the cost of operating advanced life support ambulances. The Georgetown contract, entered May 8, 2007, provides a total of \$302,265 annually. The contract contains an escalating fee clause as follows:

*...should the actual cost to the District for the provision of the emergency medical services exceed the estimated total sum of \$302,265, prorated on a quarterly basis, then and in that event, the District shall submit to the County a written accounting of such additional costs for the provision of emergency medical services prior to incurring such additional costs and upon County Council approval, the County shall pay to the District the amount of the additional funds necessary or required in order for the District to provide the emergency medical services. In no event shall the district incur additional expenses in excess of the amount of funds that have been actually paid by the County to the District.*

It is unclear to the consultants the extent to which this clause has been exercised. It is noted however in other documents that for 2019, 2020, and 2021 the Georgetown County ambulance funding revenue was \$400,265 for each year. It appears that these additional dollars could be either related to ambulance billing revenue or a request by the district for additional funding.

Also included in the contract is a clause reading:

*...the district shall be responsible for securing and maintaining workman compensation insurance coverage for all personnel involved in the performance of the contracted emergency medical services. Wages and salaries paid to all emergency medical services personnel shall be commensurate with those wages and salaries paid by the County to its emergency medical services personnel.*

The consultants are unclear as to how “commensurate” will be interpreted related to pay and benefits for district employees. In essence, it can be easily interpreted to mean that district employees must be paid at a salary not less than those employed by the county who provide similar services, but the question remains as to whether they can be paid more and if so, by how much more. The consultants see this clause as a possible “limiting statement” that needs to be clarified. In any compensation study this clause along with a defining interpretation may need to be taken into consideration.

The Horry County contract entered December 1, 2012, provides a \$25,000 supplement for two (2) advanced life support ambulances operated by the district. Ambulance billing within Horry County is contracted to Andres Medical Billing of Arlington Heights, Illinois. Documents reflect ambulance billing revenue as follows:

**Table 58: 3-Year Comparison Horry County Ambulance Billing Revenue**

<b>Horry County Ambulance Billing Revenue</b>		
<b>2019</b>	<b>2020</b>	<b>2021</b>
\$858,787	\$865,432	\$1,133,409

Horry County also utilizes the Governmental Enterprise Accounts Receivable (GEAR) program to collect unpaid ambulance billing. In the 2022 budget \$30,000 is slated to be received from this funding source. So far, this fiscal year the district has collected \$26,615.72.

#### Miscellaneous Revenue

The district utilizes several additional revenue sources that generate approximately \$75,000 annually. These include fees for inspections, plan reviews, insurance recovery for non-EMS responses, and fees for services such as CPR training, etc.

#### Grants

Since 2019 the district has applied for more than 7.9 million in grant funding. To date, \$725,710 has been funded with the majority coming from COVID-19 expenses and Hurricane Dorian and Hurricane Florence. The department did receive \$328,326 in a 2019 FEMA Assistance to Firefighter Grant award.

Prior to the commencement of this study, the district requested \$6,565,426 in a FEMA – Staffing for Adequate Fire and Emergency Response (SAFER) Grant to receive the funding needed to bring the organization into compliance with NFPA 1710. At this point the district has not yet received information related to rejection or award of this grant.

**Table 59: 3-Year Grant Applications and Status**

Grant Applications / Status				
Agency	Purpose	Grant Amount	Status	Date
SAFER FY 2021	Staffing - 18 Firefighters	\$6,565,425.96	Applied	2/4/2022
Pee Dee Coalition Grant	Water Rescue Training	\$78,496.00	Applied	1/15/2022
Firehouse Subs	AEDs & Accessories	\$14,991.98	Awarded	1/6/2022
AFG FY 2021	Extrication Tools	\$276,430.04	Applied	12/7/2021
AFG FY 2020	Equipment	\$275,650.12	Not Selected	10/6/2021
FM Global	Sparky Costume	\$2,700.00	Awarded	9/23/2021
FEMA RPA COVID	COVID Expenses	\$174,013.24	Awarded	7/26/2021
AFG FY 2020	COVID-19 Round 2	\$67,374.90	Awarded	4/29/2021
SC Recovery Grants	COVID Expenses	\$25,062.19	Awarded	3/9/2021
SC Recovery Grants	COVID Expenses	\$21,669.60	Awarded	12/31/2020
AFG FY 2019	Stretchers, Monitors, Chest Compression Systems	\$328,325.92	Awarded	10/8/2020
CARES Act PRF	COVID Expenses	\$37,288.86	Awarded	4/30/2020
FEMA RPA	Hurricane Dorian	\$18,371.51	Awarded	3/10/2020
FEMA RPA	Hurricane Florence	\$34,611.48	Awarded	2/27/2019
Walmart	Smoke Detectors	\$1,300.00	Awarded	1/22/2019
		\$7,921,711.80		

It is important to note that although grant revenue is hugely valuable for one-time purchases or in the case of SAFER grants, funding to hire personnel while the district finds additional revenue sources to continue funding the positions following the grant award period (5 years), grant funding is not sustainable revenue. The district should be commended for its work in applying for and receiving grant dollars. It must be stressed however that reliance on grant funding for operational purposes will not provide for long-term financial stability of the district.

## Referendum

To increase the millage multiplier, the district needs to pass a referendum. A referendum was successfully passed in 2015. A second referendum was placed on the ballot in 2018 but was soundly defeated. The defeat is blamed on the district not working hard enough to explain the need for additional funding. It is also believed that an employee embezzlement situation impacted the vote along with a resident of the community who opposed the referendum mailing a letter to every home in the district arguing against its passage. The referendum was voted down by a large percentage.

### Embezzlement Situation

In 2015 it was discovered that the district's administrative assistant was embezzling money from the district. This employee died unexpectedly while at work in her office. After her death it was discovered that she had stolen around \$84,000 from the district. The embezzlement occurred over a 2 ½ year period. The South Carolina Law Enforcement Division (SLED) along with the solicitor's office investigated and found no evidence of other employees' involvement.

### Impact of Failed Referendum

The district is experiencing tremendous population growth which has resulted in a significant increase in call volume. This call volume is greatly taxing the resources of the district. Additional ambulances are needed to cover the workload which necessitates the need to hire more personnel. The district is also not in compliance with NFPA 1710. Without an increase in the mill rate, the district cannot cover the cost of additional salaries and benefits. A millage rate increase can only be obtained through a referendum. This lack of sustainable revenue is contributing to the hardship within the district.

### Need for Referendum

The consultants recommend that the district work to determine the millage rate required to fund the added positions as detailed in this report as well as infrastructure recommendations that cannot be covered through impact fees. This rate needs to consider future inflationary costs to ensure that the new rate will generate the needed annual revenue for sustained operations over the next several years. Once this rate has been established, the district needs to proceed with the process of legally placing the referendum on the ballot. It is highly recommended that the district hires a public relations marketing firm to assist in messaging the campaign to support the needed tax referendum.

## Additional Financial Recommendations

### Finance Professional

Due to the complexities of governmental financial management the consultants recommend that the district hire a full-time financial professional. This position should be responsible for the management of all revenue and revenue projections, budget development and tracking, the development and management of sinking funds, reserve accounts, investment policies and payroll management. Accounts payable and receivable should continue to be managed by the district's administrative assistant. This will allow a separation of duties as recommended by the Government Finance Officers Association. All accounting practices should comply with the Government Accounting Standards Board (GASB).

### Financial Policy

The district needs to update the current purchasing procedures following standards as established by the Governmental Accounting Standards Board (GASB). This policy should include at a minimum:

- Code of Ethics
- Conflict of Interest Policy

- Purchasing Policy: Limits and Authorities
  - Bid Process
  - Sole Source Purchases
  - Emergency Purchases
  - Professional Services
  - Contracts for Goods and Services Exempt from Competitive Bidding
  - Intergovernmental Purchases
- Purchasing Procedures
  - Purchase Orders
  - Check Requests
  - Change Orders
  - Travel Expense Reimbursements and Advances
  - Other Employee Reimbursement
  - Use of the District's Tax Exemption Number
  - Ordering over the Internet
  - W-9 and Vendor Authorization
- Accounts Payable Procedures
  - Invoices for Materials/Services Covered by a Purchase Order
  - Purchases near the end of the fiscal year
  - Credit Memos
- Disposition of District Owned Property
- Public Solicitations
- Grant Applications
- Managing Donations
- Financial Signatories
- FBAR Compliance (Foreign Banks and Financial Account Reports)
- Policy for use of Credit Card
- Investment Policy
- Sinking Fund Policy
- Reserve Policy

## Changes Based on Feedback

The bullet point narratives listed below provide an overview of the work occurring while this study has been underway. Chief Haney provided this update which gives a clear picture of the direction and efforts to address in a progressive and proactive fashion the needs of the district.

### **Rescue Building:**

- **Mutual Aid Agreement:** Nearly every Fire Rescue agency in Horry and Georgetown counties has decided upon and approved the agreement's language. This agreement should be in effect no later than October 1, 2022. **(Appendix F)**
- **District Expansion:** The Chairman has been talking with Horry County Administrative leadership about expanding the district by picking up additional areas from Horry County in the 29576 zip code. The Board of Directors has voted unanimously in support of this move, and it is believed that a strong potential exists for approval by the county. Attached is a map of the proposed expansion. **(Appendix G)**
- **Impact Fee Manual:** The impact fee manual has been updated based on the recommendations from our attorney and Fire Marshal.
- **Paramedic Specialist Job Position:** Based on information gleaned at the Horry Georgetown Fire Chiefs Association, every agency within our two counties is struggling with staffing. Myrtle Beach is offering a \$4,000 relocation bonus for new employees and is now allowing lateral transfers of paramedics with a significant increase in starting salary. Myrtle Beach Fire reportedly lost seven employees within two weeks and both Midway Fire Rescue and Georgetown Fire EMS are down double-digit vacancies each. To cast a wider net related to possible new employees, the district has posted job adds on the district's Facebook page and in Fire-Rescue Magazine, at local EMS colleges, and fire service trade journal websites. The district has also created a new Paramedic Specialist Position (Paramedic Only). This position will start at \$48,000 a year and will be EMS only working a 24/72 schedule. Response to the soft launch on this new position has resulted in one interview and fourteen phone calls from providers throughout the area interested in the offering. I also have a Firefighter/Paramedic on the payroll who has been struggling with his firefighter conditioning and is seeking employment at an EMS-only private agency as a fallback. The district is seeking to fill eight Paramedic Specialists Positions. This new position makes MIGCFD the only agency in the area making this offering. Feedback has been positive related to this change citing the benefit it provides the employee and their family regarding work-life balance.
- **Workload Re-distribution:** After receiving feedback from the lead consultants, a decision was made to transfer the process of employee discipline down a few levels, allowing for a more hands-on approach regarding employee discipline issues at the lieutenant and the captain levels. The Battalion Chiefs are now handling the administration of write-ups and documents of record (DOR). This was previously handled by the Deputy Fire Chief. With this change, the operations chiefs have been doing an excellent job in their approach to employee management. The workload for the Deputy Chief has also been significantly reduced Which allow more time to focus on operational areas.
- **Employee Management Software:** Based on feedback specifically from Senior Consultant Malayna Mays, a Professional Standards Committee has been created to develop new guidelines for discipline, officer development, critical incident stress tracking, positive recognition opportunities, and performance evaluation parameters to help with employee growth. A contract has been extended to Essential Personnel™ (<https://essper.com/>) which is a company

that provides software designed to address each of these employee tracking and management issues. The company has constructed the district's IT site and will be doing training with district staff by mid September.

- **Employee Meetings and Information Sharing:** The fourth Monday of the month is the district's Board of Directors meeting. The Wednesday following is the operations meeting with all lieutenants. The Captain's meeting is held the following day (Thursday), and lastly, the Executive Officers meeting is held on the last Friday of the month (Battalion Chiefs, Division Chiefs, Deputy Chief and Fire Chief). The format of the employee meetings has changed to be "in-person only." The feedback during these meetings has been excellent with communication being fluid and well-received. The written weekly update has also been reinstated.
- **Extrication Tools:** The Board approval the purchase of a complete set of extrication tools to replace a set that is nearly twenty-year-old and has failed with increased frequency. Some of these failures have been during field operations.
- **Accommodations Tax-Georgetown County:** A work group is developing a proposal for water rescue equipment (Jet-ski, Side-by-side, etc.) and staffing to cover ocean rescues during peak tourist season. This proposal will provide a more timely response for critical time-sensitive rescues and allow more fire and EMS units to remain staffed and in-service during those events. The team is optimistic that the proposal, like most A-tax projects, will be funded by businesses in the district.
- **Division Chief of Training:** A new training schedule has been mapped out for 2023. The Chief is assisting with efforts to revive the Horry-Georgetown Training Chief's group. This group has been in dormancy for years.



## Recommendation Summary

Murrells Inlet – Garden City Fire District - Recommendation Priority			
Number	Priority	Topic	Recommendation
1	4	29 CFR § 1910.134 – Respiratory protection	Review and update as needed all Standard Operating Guidelines and policies related to the use and maintenance of SCBA.
2	1	29 CFR § 1910.134I(1)(iii) – Respiratory protection	Establish and enforce a “grooming policy” requiring personnel to be clean shaven when on-duty with no facial hair that comes between the sealing surface of the facepiece and the face.
3	4	OSHA Required Training	Review the annual training plan to ensure compliance with all required OSHA topics.
4	4	Center for Public Safety Excellence	The district should establish CPSE accreditation as a long-range goal.
5	4	Commission on Accreditation of Ambulance Services (CAAS)	The district should establish CAAS accreditation as a long-range goal.
6	1	Incident Safety Officer	Any officer serving in an incident safety officer role needs to take and pass the department’s physical ability test along with an NFPA 1582 medical exam.
7	2	Officer Development Training	Develop a comprehensive and multi-year officer development training plan that incorporates both soft skills/management instruction along with learning focused on incident strategy and tactics and mitigation.
8	3	Succession Planning	Conduct an analysis and begin a long-term process of succession planning related to development of future district leadership.
9	2	Strategic Planning	The district needs to develop a formalized 3-year strategic plan with detailed goals based on this study. The plan needs to be reviewed at a minimum biannually with updates on progress reported to the Board of Directors.
10	1	Exhaust Removal Systems	Direct capture exhaust removal systems need to be installed at each fire station.
11	4	Storage & Apparatus Maintenance Building	Construct a storage/apparatus maintenance building behind the headquarters fire station.
12	3	Automatic Aid Program	Continue discussions with regional departments to develop and implement an automatic aid system.
13	1	Human Resources	Repeat the employee survey at 6-, 12- and 18-month intervals to allow comparison of data against organizational changes.
14	3	Human Resources	Develop and implement a standardized awards/recognition/commendation policy.
15	2	Human Resources	The district needs to develop a formalized “recruitment strategy.” The creation of a recruitment team may work well to develop and implement this needed strategy.

Murrells Inlet – Garden City Fire District - Recommendation Priority			
Number	Priority	Topic	Recommendation
16	2	Human Resources	Develop an Applicant Tracking System (ATS) so the entire recruitment process is managed via a software system, with document and notation retention capabilities.
17	2	Human Resources	Move to a system where all communication with applicants is generated via email so messages can be sent quickly, and copies retained. This correspondence should be standardized so there is a consistent message being sent from the organization. All correspondence should be retained based upon the organization's retention policy.
18	3	Human Resources	The Deputy Chief should retain responsible for new employee interviewing with the rank of Lieutenant and above introduced to the hiring process for training and experience.
19	3	Human Resources	The district should stop using the JRAT physical ability testing and move to the national standard CPAT testing.
20	3	Human Resources	Begin using a personality inventory test as part of the new employee assessment and hiring process.
21	3	Human Resources	Develop a policy in which a recruitment records and applications are maintained for a 3-years.
22	1	Human Resources	It is recommended the district determine its compensation philosophy and then establish wages and benefits that aligned with the regional labor market. Conduct a compensation study looking at wages and benefits for all district employees.
23	4	Human Resources	Consider issuing district-owned cellular phones to those employees who require them as part of their assigned job duties.
24	3	Human Resources	Develop a consistent and written process for new employee on-boarding. Utilize this process for all new hires.
25	2	Human Resources	Update all job descriptions ensuring that they include at a minimum; essential duties and responsibilities, qualifications, and experience, required education and training, language skills, mathematics skills, ability to reason, and physical demands of the position. Update job descriptions annually.
26	2	Human Resources	Establish an employee performance management system. Employee meetings should take place at a minimum quarterly.
27	3	Human Resources	Continue using an assessment center process for promotional testing. Conduct testing annually creating an eligibility list.
28	2	Human Resources	Create a discipline policy that utilizes the <b>Seven Tests of Just Cause</b> as the basis for assessing discipline.

Murrells Inlet – Garden City Fire District - Recommendation Priority			
Number	Priority	Topic	Recommendation
29	2	Human Resources	Adopt a progressive disciplinary approach, which excludes coaching as a form of discipline.
30	2	Human Resources	As part of the discipline policy, include lower supervisory ranks so that discipline is handled at the lowest supervisory level possible.
31	3	Human Resources	Establish a regular training program for district supervisors/officers that includes HR and Management specific topics. Non supervisors/officers should be allowed to attend trainings as a succession planning and development tool.
32	2	Human Resources	Update and separate employee personnel files into groupings: main employee file, payroll file, medical file, subject file.
33	1	Staffing	Immediately stop the downgrading of the battalion chief position and ensure that it is filled daily with either a commissioned chief officer or an upgraded officer (i.e., captain or senior lieutenant).
34	3	Finance	The district needs to update the current financial management policy following standards as established by the Governmental Accounting Standards Board (GASB).
35	1	Finance	The district needs to determine the millage rate required to fund the added positions as detailed in this report as well as infrastructure recommendations that cannot be covered through impact fees. This rate needs to consider future inflationary costs to ensure that the new rate will generate the needed annual revenue for sustained operations over the next several years.
36	1	Finance	The district needs to proceed with the process of legally placing the referendum on the ballot.
37	1	Finance	The district needs to hire a public relations marketing firm to assist in messaging the campaign to support the needed tax referendum.
38	3	Finance	The district needs to establish sinking funds for future apparatus purchases as well as major equipment upgrades.

## Staffing Recommendation Summary

Existing Staff Positions	Number in Category	Recommendation
Fire Chief	1	Maintain
Deputy Fire Chief	1	Maintain
Division Chiefs	3	Maintain
Battalion Chiefs	3	Maintain
Captains	3	Maintain
Lieutenants	9	Maintain
Engineers	12	Maintain
Firefighters / Paramedics / EMTs	29	Maintain
Administrative Assistant	1	Maintain
Volunteers	7	Maintain
Reception Desk Volunteers	18	Eliminate through attrition
<b>Current Total Positions (Not including volunteers)</b>	<b>62</b>	
Recommended <u>New</u> Positions	Number in Category	Recommendation
HR Professional	1	Add Position
Finance Professional	1	Add Position
Deputy Fire Marshal	1	Add Position
Firefighters / Paramedics / EMTs	33	Add Positions
Receptionist to replace volunteers	1	Add Position
<b>Recommended Total Positions: Existing and New (Not including volunteers)</b>	<b>99</b>	

## Appendix A – Data Request

Data Requested – McGrath Consulting Group, Inc. – *Fire/rescue/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 district
- History
- Overview of the area protected
  - District
  - City/Village/Town/Township
- Population – Residents of Protection Area
- In-flux or Out-flux of Daytime Population
- District'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 District 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/rescue/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

- District'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)
- District Employee's Handbook
- New employee orientation process – packet an/or forms

#### **The District**

- Annual Reports – Last 3 Years
- Current ISO Rating
  - Provide complete ISO document
  - Last IOS on-site evaluation (copy of point distribution sheet)
- District SOGs
- District 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 2019	Calls 2020	Calls 2021
100	Fires			
200	Overpressure/Explosion			
300	Rescue/EMS			
400	Hazardous Conditions			
500	Service Calls			

NFIRS Series	Nature of Call	Calls 2019	Calls 2020	Calls 2021
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:
    - 1<sup>st</sup> 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 district 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) for each member
- 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
  - District'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 district
- 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 district 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 – Fire Chief’s Perspective on Strategic Needs

### **Murrells Inlet-Garden City Fire District**

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PO Box 648, 3641 Hwy. 17 Bus.  
Murrells Inlet, SC 29576  
PH (843) 651-5143 FAX (843) 651-1101

Gene Connell, Chairman  
J. R. Haney, Fire Chief

#### **From the Office of the Fire Chief**

##### *Strategic Plan*

Since my placement as the Fire Chief for the Murrells Inlet-Garden City Fire District in March of 2020, one of the main goals during my first year was to create a supportive framework for success and provide an overall positive direction of movement for the Department and its members. A saying from one of the stoics holds to our need, "*If one does not know to which port one is sailing, no wind is favorable.*" I truly believe a strategic plan that provides short to long-term guidance and invokes a shared vision with measurable, obtainable goals is essential for our success.

Unfortunately for us and the rest of the world, COVID-19 put a damper on many of our best efforts to push forward with creating our community-driven plan. In these recent times of unprecedented adversity, our Department used the stressors that came with a global pandemic to understand our needs more clearly. The Murrells Inlet-Garden City Fire District, I believe now more than ever, has a more precise direction towards which port we intend to sail.

##### *Team*

What encourages me as a Fire Chief is the tenacity of my members. Some Chiefs may use the word driven, hardworking or reliable as the preferred term for their personnel, but the term *tenacious* fits my team. Members of the MIGCFD are willing to take on any task given, no matter the difficulty. Our members have, and will, go to any length necessary to provide excellent service to their community and their Department. I believe honestly that this Department has some of the best members in the fire service. I recognize these behaviors at all levels in our membership, from our backward-riding firefighters to senior management.

I mention these traits as the information is essential in the planning process of recognizing:

- 1) Who are we?
- 2) Where do we want to go?
- 3) What do we need to get there?
- 4) How do we know that we have arrived?

The behavioral traits of my team give me optimism and overall encouragement that we can succeed in our mission, no matter the complexity.

(cont.)

### *Statement of Support*

The thought of an external audit being performed by essentially strangers may prove stressful to some; however, I believe such an audit is necessary to provide an objective, unbiased examination of the present state of our organization and the community in which we protect. Our Department welcomes feedback from your company as you learn about our needs, values, and culture. Your objective review of our Department outlining our strengths and potential areas for improvement are imperative to our future success. We are supportive to any individual or entity willing to put forth an earnest effort to make our Department "better."

### *Areas of Focus*

While the statements reflected herein are in no way a substitute for a strategic plan, our Department outlined concerns that have proven to hinder our overall success as an agency. Overcoming these issues will assist in supporting the emergency services needs of our rapidly expanding community. While certainly not an all-inclusive list, several topics concern our Department.

- Recruitment & Retention
  - A common issue in the Fire Service, not unique to our agency.
  - There is a loss of institutional knowledge secondary to retirement.
  - There is a highly competitive job market, with numerous agencies competing and courting a fewer number of applicants.
  - Ensuring that salaries and benefits are commensurate with our Department's roles, responsibilities, and workload while also being competitive compared to neighboring fire agencies in the region.
  - Difficulty in recruitment leads to increased current employee stress secondary to a heavier workload, excessive personal demand, and limited downtime, which increases the likelihood of employee burnout.
- Fourth Medic Unit Need
  - A fourth medic unit is currently staffed with part-time personnel during peak hours to assist with high call volumes and allow career staff to receive an increased likelihood of uninterrupted training time.
  - Difficulties in consistently staffing the medic unit remain, as the available part-time member pool has decreased.
  - A fourth medic unit is needed full-time, with career staff, to handle high call volumes and offer career member relief. Yet, the opportunity for full-time realization is stifled by a lack of available tax revenue to fund its use in that capacity.
- Fifth Station
  - A fifth station is needed in the northwest corner of our District. This area is the busiest box of our coverage area, with multiple assisted living and skilled nursing facilities—the area in question, has numerous single-family residential neighborhoods as well.
  - A fifth station built in this area would aid in the District's attempt to annex the remaining part of the 29576 zip code from Horry County Fire Rescue.
  - A fifth station built in this area would also provide call relief from our fourth station and would go to great lengths to mitigate firefighter and EMS provider burnout.

- **Staffing Needs**
  - The MIGCFD, during times of full-staffing, has a three-person engine or aerial company for three-quarters of its stations; the remaining company has two members.
  - A SAFER Grant for thirty additional personnel was applied for in 2022 to increase the number of personnel on fire apparatus to meet NFPA 1710 standards and assist with staffing a fourth medic unit.
  - Additional administrative personnel is needed to assist with HR management and associated administrative office tasks.
  - The EMS Division needs personnel to assist with Q/A, training, and medical supply inventory.
  - The Fire Training Division needs an additional member to assist in creating, maintaining, and implementing a training program that supports our rapidly growing Department.
- **Revenue Limitations**
  - The tax-millage cap is set and cannot be adjusted upwards without a referendum.
  - A referendum comes with a financial cost and multiple time constraints.
  - Two primary funding sources exist for the District; Tax Revenues & Impact Fees.
  - Forecasted tax revenue growth in our area fails to meet the increasing demand of our District in the areas of salaries and additional personnel.
  - Without additional tax revenue, our District is essentially mired in place regarding wages, benefits, and overall personnel numbers.
  - Impact Fees made available from the construction of commercial and residential properties will decrease as more properties are built upon, leaving fewer areas available for future development.
  - Impact Fees are restricted funds and can only be used to purchase and maintain firefighting equipment and facilities.

#### *Last Words*

There is an ever-increasing public demand for our services, while revenues stagnate or are simply outpaced by operational demands and needs. These trends cause significant strains on our Department, not only at a management level but also on our firefighters. Our membership shoulders these stressors well; however, these pressures could be mitigated by the opportunities provided by an increase in tax revenue funding and the development and adherence to a solid organizational strategy and management plan.

With the assistance of the McGrath Consulting Group, the continued overwhelming support of the MIGCFD Board of Directors, and the tenacity of our staff to succeed in all measures, I am confident that we can rise above the challenges that lay before us. Thank you for the opportunity to work with your company in our shared effort to create a "better" Murrells Inlet-Garden City Fire District.

-Chief J. R. Haney



## Appendix C – Brown Out Staffing

### **Murrells Inlet-Garden City Fire District**

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PO Box 48, 3641 Hwy. 17 Bus.  
Murrells Inlet, SC 29576  
PH (843) 651-5143 FAX (843) 651-1101

Gene Connell, Chairman  
JR Haney, Fire Chief

### **INTER-OFFICE MEMO**

Date: 07/10/2020  
To: All Users  
Topic: COVID-19 staffing  
From: Assistant Chief Jeff Kosto  
Cc: Chief JR Haney, Barbara Taylor

Good afternoon, this will be a slightly lengthy memo, but it is essential that everyone reads and understands the contents. Due to the excessive number of personnel out on quarantine and isolation, we are reaching critical staffing levels. Below I will be outlining the steps we are taking to keep the Department running smoothly and maintaining our ability to respond efficiently to all calls in our response area.

Per Chief Haney, minimum staffing will go from 16 personnel to 14 personnel per shift. The ability to call in overtime after the shift has reached 14 will no longer be available to the Captains or the officers that handle the scheduling for the shift. The only spot that will be allowed to be filled over the minimum staffing levels with overtime would be an EMT for Medic 76. If the shift is staffed with over 14 personnel, there will be an EMT on Medic 76 if the unit is available. At no time will it be acceptable for personnel to question an officer or a scheduler about why they are being moved. The only question that will be accepted, is a confirmation on the move. I can assure you that if you are being moved, it was needed for the operation of the Department. Officers and schedulers will do their best to notify personnel of their move in an adequate timeframe to allow for ample opportunity to relocate belongings.

We understand that there may be a need to brownout a piece of equipment at some point in time. Captains will have to contact a Chief officer before implementing a brownout. Below I will list the steps for browning out a vehicle.

#### **Level 1**

The Captain or officer in charge will confirm that all resources have been exhausted. This involves all overtime availability, which includes volunteers, asymptomatic personnel that are off due to quarantine and isolation that feel well enough to have the ability to work (following the CDC guidelines below), part-time staff that has hours that they can work (which will keep them under the 36 hours per week), and lastly, the Admin. Officers. Once this step is completed, the Captain or officer in charge will follow the steps below.

- Contact a Chief officer to get permission to brownout a piece of equipment.
- The first piece that will be browned out will be Engine 76.
- The officer will utilize Air 76 for a first response vehicle and will respond to all calls that Engine 76 would be dispatched to.
- The other personnel that are assigned to Engine 76 will be utilized on other apparatus at another station.
- Medic 78 will come to Station 76 and remain covering their box.

### **Level 2**

Level 2 for browning out will be utilized only if level 1 has been utilized, and we remain short-staffed on another unit. The Captain or officer in charge will follow the steps below for a level 2 brownout.

- The Captain or officer in charge will contact a Chief officer to request permission for a level 2 brownout.
- Medic 78 will be browned out.
- Medic 79 will be moved to Station 76.
- Any staff unassigned will be utilized where needed.
- Medic 79 will take over the 7607 box.

Anything more than the above two levels will be a decision made directly from Chief Haney.

The next item that will be addressed is the recommendations from the CDC on HCP's responding to work after a COVID-19 exposure. The CDC defines an exposure as being within 6 feet of a known positive, or an unknown symptomatic person and being unprotected by a mask or proper PPE for greater than 15 minutes.

The department is following the guidelines set forth by the CDC. We are doing our research on as many aspects of this virus as possible.

We have implemented a tiered response for return to work criteria and to facilitate coverage for the Department during critical staffing times. Below are the guidelines directly from the CDC website:

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/mitigating-staff-shortages.html>

The first is the response from an unprotected exposure without symptoms.

*"Developing plans to allow asymptomatic HCP who have had an unprotected exposure to SARS-CoV-2 (the virus that causes COVID-19) but are not known to be infected to continue to work.*

- *These HCP should still report temperature and absence of symptoms each day before starting work. These HCP should wear a facemask (for source control) while at work for 14 days (this is the time period during which exposed HCP might develop symptoms, i.e., the current incubation period for the virus) after the exposure event. A facemask instead of a cloth face covering should be used by these HCP for source control during this time period while in the facility. After this time period, these HCP should revert to their facility policy regarding universal source control during the pandemic.*
  - *A facemask for source control does not replace the need to wear an N95 or higher-level respirator (or other PPE) when indicated, including for the care of patients with suspected or confirmed COVID-19.*
  - *Of note, N95 or other respirators with an exhaust valve might not provide source control.*
- *If HCP develop even mild symptoms consistent with COVID-19, they must cease patient care activities and notify their supervisor or occupational health services prior to leaving work. These individuals should be prioritized for testing."*



The next tier is staffing when we reach crisis capacity. This capacity is at which we are no longer able to staff enough personnel to provide safe and effective patient care. This criterion was also taken directly from the CDC website: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/mitigating-staff-shortages.html>

*"When there are no longer enough staff to provide safe patient care.*

- *If not already done, allow asymptomatic HCP who have had an [unprotected exposure to SARS-CoV-2](#) but are not known to be infected to continue to work.*

*If shortages continue despite other mitigation strategies, consider implementing criteria to allow HCP with suspected or confirmed COVID-19 who are well enough to work but have not met all [Return to Work Criteria](#) to work. If HCP are allowed to work before meeting all criteria, they should be restricted from contact with severely immunocompromised patients (e.g., transplant, hematology-oncology) and facilities should consider prioritizing their duties in the following order:*

1. *If not already done, allow HCP with suspected or confirmed COVID-19 to perform job duties where they do not interact with others (e.g., patients or other HCP), such as in telemedicine services.*
2. *Allow HCP with confirmed COVID-19 to provide direct care only for patients with confirmed COVID-19, preferably in a cohort setting.*
3. *Allow HCP with confirmed COVID-19 to provide direct care for patients with suspected COVID-19.*
4. *As a last resort, allow HCP with confirmed COVID-19 to provide direct care for patients without suspected or confirmed COVID-19.*

*If HCP are permitted to return to work before meeting all [Return to Work Criteria](#), they should still adhere to all [Return to Work Practices and Work Restrictions](#) recommendations described in that guidance. These include:*

- *Wear a facemask for source control at all times while in the healthcare facility until they meet the full [Return to Work Criteria](#) and all symptoms are completely resolved or at baseline. A facemask instead of a cloth face covering should be used by these HCP for source control during this time period while in the facility. After this time period, these HCP should revert to their facility policy regarding [universal source control](#) during the pandemic.*
  - *A facemask for source control does not replace the need to wear an N95 or higher-level respirator (or other PPE) when indicated, including when caring for patients with suspected or confirmed COVID-19.*
  - *Of note, N95 or other respirators with an exhaust valve might not provide source control.*
- *They should be reminded that in addition to potentially exposing patients, they could also expose their co-workers.*
  - *Facemasks should be worn even when they are in non-patient care areas such as breakrooms.*
  - *If they must remove their facemask, for example, in order to eat or drink, they should separate themselves from others.*
- *Being restricted from contact with severely immunocompromised patients (e.g., transplant, hematology-oncology) until the full [Return to Work Criteria](#) have been met.*
- *Self-monitoring for symptoms and seeking re-evaluation from occupational health if respiratory symptoms recur or worsen."*

We, as a department, are following these guidelines. Understand that this is a tiered process. We do have the ability to go further down in the staffing tier if it is needed. We as a department will do our best to cover those that are out, but we still have an obligation to provide fire protection and EMS services to the community for which we serve.


The last item I would like to cover is on and off duty relief. You are at no time to leave your assignment until proper relief has arrived to relieve you. We will do our best to get relief to you as soon as possible. I know everyone is tired and beat down, but I promise we will get through this pandemic and come out

stronger and better than we were before. Everyone has done a phenomenal job in every aspect, and I can assure you it is noticed.

Assistant Chief Jeff Kosto

## Appendix D – Fire Investigator Notes Packet

Murrells Inlet-Garden City Fire District



Fire Investigator Notes

Re. \_\_\_\_\_ Incident # \_\_\_\_\_

Incident Number: \_\_\_\_\_

Date and Time of Incident

Date:	Investigator Notified:
Incident Reported At:	Investigator on Scene:
Invest Commenced At:	Investigation Concluded:

Personnel Assigned

Investigator:	Fire Chief/OIC:
Investigator:	Police/State PD:
Investigator:	Other:

Property Description      Location

Structure:	Address:
Vehicle:	Owner:
Wildland:	
Other:	Phone:

Insurance Info

Insured Name:	Agent:
Carrier:	Policy #:
Fire Coverage on Building:	
Fire Coverage on Contents:	
Business Interruption Coverage:	
Liability Coverage on Building:	
Effective Date:	Renewal Date:

#### Weather Conditions

General:	Temp:	Precip:
	Wind Direction:	Wind Speed:

#### Structure Type & Description

Property Use:	Status:
Construction Type:	# of Units:
Basement:	# of Stories:
Roof:	Siding:

#### Utilities

Utility	On/Off/NA	Location	Utility Co	Damage
Electric				
Gas				
Water				
Phone				
Cable				
Other				

#### Electrical Service

Service Entrance Location:
Service Panel Location:
Circuit Type:
Service Amps:
Circuits Tripped:
Damage to Service:

#### Heating Systems

Name:	Name:
Model #:	Model #:
Serial #:	Serial #:
Fuel Source:	Fuel Source:

#### Fire Alarm System

Fire Alarm System on Premise	
FA Operating on FD Arrival	
Alarm Panel Location:	
Alarm Brand:	Monitored By:
Smoke:	Strobes:
Heat:	Horns:
Other:	Bells:

#### Residential Smoke Alarms

Smoke Alarm Locations:
Batteries Installed:

#### Automatic Sprinkler System

Sprinkler on Premise:
Sprinkler System Operating on FD Arrival:
Date of Last Service:
Company Performing Service:

Name:	DOB:
Address:	Phone:
Relation to Incident:	

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Appendix E – FOIA Resolution

### A RESOLUTION

#### ADOPTING A POLICY REGARDING REQUESTS FOR PUBLIC RECORDS UNDER THE FREEDOM OF INFORMATION ACT

**WHEREAS**, the Board of Directors of the Murrells Inlet-Garden City Fire District (the "**Board**"), the governing body of the Murrells Inlet-Garden City Fire District (the "**District**"), recognizes the findings of the General Assembly of South Carolina that it is vital in a democratic society that public business be performed in an open and public manner so that citizens shall be advised of the performance of public officials and of the decisions that are reached in public activity and in the formulation of public policy; and

**WHEREAS**, in order to ensure that the District conducts public business in an open and public manner, it shall be the policy of the District to comply with both the letter and the spirit of the Freedom of Information Act ("**FOIA**"), as codified at §§ 30-4-10 *et seq.* of the Code of Laws of South Carolina, 1976, as amended; and

**WHEREAS**, the Board has determined that a formal policy regarding the submission and processing of requests for access to public records under FOIA should be adopted to provide the public and District's employees with clear requirements and practices that will permit the District to operate in an open and public manner.

**NOW, THEREFORE, BE IT RESOLVED** by the Board as set forth below:

**SECTION 1.** Pursuant to the findings above, the Board hereby adopts its Policy Regarding Requests for Public Records Under the Freedom of Information Act (the "**Policy**"), a copy of which is attached hereto.

**SECTION 2.** In adopting the Policy, the Board has determined that the fee schedule for staff time and copies included in the Policy is an accurate reflection of the actual cost of searching for and making copies of records. The schedule has been approved by the terms of this Resolution, but may be updated in the reasonable discretion of the Board by subsequent resolution or by the approval of its annual budget.

**SECTION 3.** In approving this Resolution and the Policy, the Board expressly adopts any and all exemptions, restrictions and limitations from disclosure contained within FOIA as may be amended from time to time, and any additional exemptions, restrictions or limitations from disclosure that may be provided for now or in the future under South Carolina or Federal law.

**SECTION 4.** The Policy is effective immediately upon the adoption of this Resolution.

**BE IT IS SO RESOLVED** by the Board of Directors of the Murrells Inlet-Garden City Fire District in meeting duly assembled this 27<sup>th</sup> day of October, 2014.

**MURRELLS INLET GARDEN CITY FIRE  
DISTRICT, SOUTH CAROLINA**

*Albert W. Hitchcock, Jr.*

Chairman  
Board of Directors

(SEAL)

Attest:

*Willie C. Shelley, Jr.*

Secretary  
Board of Directors



## MURRELLS INLET-GARDEN CITY FIRE DISTRICT, SOUTH CAROLINA

### POLICY REGARDING REQUESTS FOR PUBLIC RECORDS UNDER THE FREEDOM OF INFORMATION ACT

Policy Statement: It shall be the policy of the Murrells Inlet-Garden City Fire District, South Carolina (the "**District**") to comply with both the letter and the spirit of the Freedom of Information Act ("**FOIA**"), as codified at §§ 30-4-10 *et seq.* of the Code of Laws of South Carolina, 1976, as amended, in regards to the processing of requests for access to public records. This Policy is applicable to all departments under the supervision of the Fire Chief, and to any board or commission whose members are appointed by the Board of Directors of the Murrells Inlet-Garden City Fire District, the governing body of the District (the "**Board**").

Making a FOIA Request: All requests for public documents pursuant to FOIA, except for those described below, must be made in writing and submitted either: in person at the District's office, 3641 Highway 17 Business, Murrells Inlet, SC 29576; or by mail to Murrells Inlet-Garden City Fire District, Attn: Fire Chief, P.O. Box 648, Murrells Inlet, SC 29576. Ideally, requests shall be made using the Freedom of Information Act Request Form (the "**Request Form**") provided by the District and made available to the public, a copy of which is attached hereto. Requests made by letter or in some other written form shall contain substantially the same information provided for on the Request Form. Unless authorized by the Fire Chief, in his sole discretion, requests shall not be submitted by fax, email or other format shall not be accepted. In order to ensure the most accurate and prompt response, requests should be as detailed, specific, and descriptive as possible. With the exception of the records detailed below, a minimum charge of \$5.00 is applied to all FOIA requests to compensate the District for the cost of the staff time and materials necessary to respond to the request. This minimum charge must be submitted along with all FOIA requests.

Requests to inspect the minutes of all public meetings of the District for the preceding 6 months need not be in writing, provided the requestor appears at the District's office in-person and within normal business hours.

Processing FOIA Requests: The Fire Chief is designated as the staff member to be responsible for and familiar with any FOIA request. Where any District employee receives any written request for public records, the request should be stamped with the date of receipt and immediately delivered to the Fire Chief. Routine FOIA requests may be handled directly by the Fire Chief. The Fire Chief is authorized to and shall consult with the District's legal counsel on non-routine FOIA requests and on any questions of law involving FOIA. Where an exemption, restriction or limitation to FOIA possibly exists, the Fire Chief should consult with the District's legal counsel to determine if an exemption, restriction or limitation applies and whether the District should decline to disclose the records based upon the exemption, restriction or limitation. However, the presumption in evaluating FOIA requests should be in favor of disclosing the requested records.

As required by FOIA, the Fire Chief must respond to all FOIA requests within 15 days of receipt of the request. It shall be the policy of the District to respond to FOIA requests as quickly as possible. Where



possible, the response to the request should include the requested records. Otherwise, the response should either inform the requestor that the requested records will be made available, along with the means of obtaining them and any additional costs that will be charged for making the records available, or it should inform the requestor that the requested records fall under an exemption to FOIA and will not be disclosed. Requested records shall be released in the format most convenient to the District.

**Records Exempt From Disclosure:** The District adopts as a part of this Policy any and all exemptions, restrictions or limitations contained within FOIA, as may be amended from time to time, along with any other exemptions, restrictions or limitations that may be provided for now or in the future under South Carolina or Federal law. As previously stated herein, the Fire Chief shall consult with the District's legal counsel to determine whether an exemption, restriction or limitation to the disclosure requirements of FOIA applies. Where an exemption, restriction or limitation applies, the Fire Chief, based upon consultation with the District's legal counsel, should decide whether to deny disclosure based upon the application of the available exemption, restriction or limitation. Where records contain certain information exempt from disclosure but which otherwise fall outside of an exemption, restriction or limitation, the exempted information shall be redacted and requested records shall otherwise be disclosed.

**Failure to Comply:** In addition to penalties available under FOIA, willful disregard of, or violation of, this Policy by any employee or other person who is subject to it, may constitute insubordination and be grounds for disciplinary action up to and including termination of employment.

**Costs for Processing FOIA Requests:** The Board, pursuant to Section 30-4-30 of FOIA, has established the fee schedule below in order to compensate the District for the actual cost of searching for and making copies of requested public records. Where it is anticipated that the staff time necessary to comply with a request may exceed (5) five hours, the requestor may be required to pay a deposit of one half the estimated costs of complying with the request before staff will begin searching for or making copies of the requested records. Costs shall not be charged for time spent examining records to determine whether they may be disclosed.

**Fee Schedule for Staff Time and Copies**

<b>Description</b>	<b>Charge</b>
A minimum charge shall be paid for all requests (except certain walk-in requests)	\$5.00
Requestors shall pay for copies exceeding fifteen (15) pages	\$0.20 per copy
Requestors shall pay for staff time at a gross hourly rate	\$20.00 per hour, per employee
Deposit for anticipated or apparent staff search time exceeding five (5) hours	1/2 of estimated costs

**Murrells Inlet-Garden City Fire District, South Carolina**  
**3641 Highway 17 Business, Murrells Inlet, SC 29576**  
**Phone: (843) 651-5143**

**FREEDOM OF INFORMATION ACT REQUEST FORM**

The Murrells Inlet-Garden City Fire District, South Carolina (the "District") has adopted its "Policy Regarding Requests for Public Records Under the Freedom of Information Act" (the "Policy"). Pursuant to the Policy, requests for information made under the Freedom of Information Act, now codified at §§ 30-4-10 *et seq.* of the Code of Laws of South Carolina, 1976, as amended (the "FOIA") shall be made using this form. This form must be signed and submitted either: in person at the District's office, 3641 Highway 17 Business, Murrells Inlet, SC 29576; or by mail to Murrells Inlet-Garden City Fire District, Attn: Fire Chief, P.O. Box 648, Murrells Inlet, SC 29576. A minimum fee of \$5.00 for staff time required to respond to the request must be included. Additional fees may also be required. No email or faxed requests will be accepted.

NAME: \_\_\_\_\_ DATE OF REQUEST: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_ EMAIL: \_\_\_\_\_

I, the undersigned, agree to pay the charges set by the fee schedule below for the services and copies I have requested.

SIGNATURE: \_\_\_\_\_  
\_\_\_\_\_

INFORMATION REQUESTED (please be as specific as possible and attach additional pages if needed): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Section 30-4-30(b) of FOIA, authorizes the District, as a public body, to charge and collect fees for the actual costs of responding to requests for public information. Under the Policy, the District has duly adopted the fee schedule set forth below for copies and for staff time in searching for and providing requested information. A minimum fee of \$5.00 for all FOIA requests must be submitted along with this form. An additional deposit is required for requests that are anticipated to require greater than (5) five hours of staff time.

**Fee Schedule for Staff Time and Copies**

Description	Charge
A minimum charge shall be paid for all requests (except certain walk-in requests)	\$5.00
Requestors shall pay for copies exceeding fifteen (15) pages	\$0.20 per copy
Requestors shall pay for staff time at a gross hourly rate	\$20.00 per hour, per employee
Deposit for anticipated or apparent staff search time exceeding five (5) hours	1/2 of estimated costs

**FOR DISTRICT USE ONLY**

DEPARTMENT SUBJECT TO REQUEST: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_  
REQUEST ASSIGNED TO: \_\_\_\_\_ DATE OF COMPLETION: \_\_\_\_\_  
DATE OF ASSIGNMENT: \_\_\_\_\_ FEE FOR SERVICES: \_\_\_\_\_  
DATE RESPONSE DUE: \_\_\_\_\_ METHOD OF PAYMENT: \_\_\_\_\_

## Appendix F – Mutual Aid Contract



### Horry Georgetown Fire Chiefs' Association Mutual Aid Agreement



This agreement, voluntarily entered into by and between the undersigned parties, is for the purpose of securing to each the benefits of providing and receiving mutual aid for fire suppression, fire prevention, EMS, technical rescue, hazardous materials, and any other planned or unplanned situation that is required.

This agreement shall remain in effect for five (5) years from October 1, 2022, or until terminated as stated below, and shall be reviewed annually by the Executive Committee of this Association. This agreement will automatically renew for one additional year, one time only, after which it will terminate. This agreement may be modified during the annual review by a simple majority of members of the Executive Committee.

#### IT IS AGREED THAT:

Upon a request by a party listed in this agreement, the other participating departments shall dispatch to the requesting party the necessary personnel and/or equipment applicable to the following conditions:

1. The requesting party shall specify the nature of the response, the type and amount of equipment, the number of personnel, as well as the location to which they shall report.
2. The National Incident Management System (NIMS) shall be utilized and all responding assets and personnel shall be subject to the directions and orders of the designated Incident Commander.
3. Each department shall complete their own incident documentation and/or reporting mechanism to ensure compliance with local, state, and federal incident reporting requirements. Each party shall make their records available to the other parties upon request without charge.
4. All personnel dispatched to a mutual aid request shall be active, qualified personnel of a ~~bonafide~~ fire department within Horry or Georgetown Counties and the equipment shall be owned by the providing agency.
5. In the event a provider's personnel and equipment need to return to their home jurisdiction, the requesting party hereby agrees to immediately release such personnel and equipment. Additionally, it is also the intent of the parties that the personnel and equipment of a providing party shall be released upon determination by the Incident Commander that their assistance is no longer necessary.
6. If a request for mutual aid provides an undue hardship for the requested party to provide emergency services within their own jurisdiction, they may deny the request or only provide what they deem acceptable. The requestor must then make a request to another party listed in this agreement.

*To Promote Interdepartmental Cooperation and Mutual Assistance with Regard to Fire and Life Safety, and to Enhance Executive Level Management and Development*



## Horry Georgetown Fire Chiefs' Association Mutual Aid Agreement



7. All parties agree that no reimbursement shall be requested or made as a result of injury to personnel or damage to equipment resulting from mutual aid that is provided pursuant to this agreement. All parties further agree that no charges shall be levied for providing mutual aid per this agreement.
8. The parties shall be solely responsible for the acts and/or omissions of their respective members, employees, officers, and officials. No right of indemnification is created by the agreement and the parties expressly disclaim such a right. The provisions of this agreement shall not be deemed to give rise to or vest any rights of obligations in favor of any person or entity not a party to this agreement. Additionally the parties agree that neither will pursue subrogation of Workers Compensation claims for injuries by members of the other entity.
9. Nothing herein contained shall be construed or interpreted to imply that the firefighters transferred or assigned in accordance with this agreement are employees of the requesting agency.

This Agreement shall remain in full force for five (5) years from **October 1, 2022**. Any party to this Agreement may, at its sole discretion, elect to terminate its participation by providing written notice of termination to each of the other participating parties' fire chief and this association. In that event, termination shall only be effective as to the requesting party. This entire agreement may be terminated by a simple majority vote of the Executive Committee.

*To Promote Interdepartmental Cooperation and Mutual Assistance with Regard to Fire and Life Safety, and to Enhance  
Executive Level Management and Development*

## Appendix G – Proposed District Expansion Map

## Appendix H – Employee Survey Questions

Questions	
Number	Question
1	The organization encourages open communication?
2	Technologies provided are good and allow me to perform my job efficiently?
3	Equipment provided is good and allows me to perform my job efficiently?
4	I receive appropriate recognition for the work I do?
5	Communication with my supervisor is consistent and informative?
6	My supervisor is available for guidance and instruction?
7	My supervisor is approachable?
8	My supervisor encourages and respects my input?
9	My performance evaluation process is constructive and meaningful?
10	My supervisor sets realistic performance goals?
11	I am comfortable going to my chain of command with concerns?
12	New ideas and/or a better way of doing things are encouraged in the District?
13	I recommend that a family member or friend apply to the Murrels Inlet-Garden City Fire District?
14	Disciplinary issues are handled in a fair and consistent manner?
15	The organization would support me and my family in the event that something happened in my personal life?
16	There are sufficient opportunities for specialty assignments?
17	The promotion process is handled in a fair and consistent manner?
18	The process of transferring personnel to other shifts or teams is handled in a fair and consistent manner?
19	I am satisfied with my pay?
20	I am satisfied with my health insurance?
21	I am satisfied with my time off benefits?
22	The level / amount of overtime is too high?
23	Morale is good at the District?
24	I have considered searching for a job at another fire district/EMS provider?
25	I have searched for a job at another fire district/EMS provider?
26	<p>I believe the following has caused turnover in the organization:</p> <ul style="list-style-type: none"> <li>• The disciplinary process</li> <li>• Supervisory practices</li> <li>• Training program</li> <li>• Quality of District-issued equipment</li> <li>• Quality of the District's facilities</li> <li>• Wages</li> <li>• Benefits</li> <li>• Overtime</li> <li>• Lack of assignments</li> <li>• Lack of promotional opportunity</li> </ul>

27	What is the district's greatest strength, conversely what is one thing that the district could improve on?
28	If you could summarize in one word the cause of employee turnover at the District, what would it be?
29	Is there anything else you would like to tell us?

# Appendix I – Fire Impact Fee Administration Manual

Murrells Inlet - Garden City Fire District  
Fire Impact Fee Administration Manual  
Rev. 2, August 22, 2022

## Murrells Inlet – Garden City Fire District Fire Impact Fee Administration Manual

Recommended Approval



Approved by the Board of Directors, Murrells Inlet – Garden City Fire District

August 22, 2022

  
Gene Campbell  
  
Kay Benton  
  
Elizabeth Ward

  
Pat Walsh  
  
John McGinn  
  
Alison Burns

1

Murrells Inlet - Garden City Fire District  
Fire Impact Fee Administration Manual  
Rev. 2, August 22, 2022

### 1.0 Purpose

This manual provides guidance for the consistent and equitable collection of Fire Impact Fees for the Murrells Inlet-Garden City Fire District by the Fire District, Georgetown County Building Department, and Horry County Code Enforcement Department personnel.

### 2.0 The Murrells Inlet-Garden City Fire District Fire Impact Fees

Many fire departments have direct ties to an established local government that assumes the responsibility for ensuring that fire protection is provided. State laws delegate certain responsibilities to governing bodies which, in turn, delegate emergency powers and certain powers of fire code enforcement to the fire official. This government umbrella often establishes a means for providing operational and capital funding but sometimes provides only essentials such as enabling legislation and a contract with an established fire department.

Upon its establishment by referendum pursuant to statutory authority in 1966, the Murrells Inlet-Garden City Fire District has operated in sections of both Horry and Georgetown Counties in South Carolina, but without control or supervision by either county. In the department's early years, it was far less expensive than it is now to purchase and maintain firefighting equipment, and the income generated by the statutorily authorized tax millage of the district could easily support such costs. The growth rate at the time was modest, and the area was primarily restaurants, small businesses, single-family homes, and vacation cottages. In the mid-1980s, the type of construction began to change to taller high-density residential structures and expanded commercial structures such as malls and shopping centers, and the amount of new construction in the fire district began to grow at a faster rate than before. The need for new fire apparatus, firefighting equipment, and its associated costs grew at a rate faster than the income generated by the statutorily authorized tax millage could support. In 1985 the South Carolina Legislature, recognizing the financial hardship by reason of rapid growth, expanded the powers of the fire district by granting the district's Board of Directors the power to impose fire impact fees.

2



With a fire impact fee, those most directly responsible for the district's growth and the consequential need for additional firefighting equipment, the developers, and builders, bear a proportional share of the cost of providing fire protection services. As sound economic practices go, this cost is passed on to the consumer. Each construction project pays its fair share for the fire apparatus and firefighting equipment.

### **3.0 Power to Collect Fire Impact Fees**

Murrells Inlet-Garden City Fire District is granted the statutory authority to impose and collect fire impact fees on all new construction and all new additions as of and following June 6, 1985, as set forth in (Act #272) Joint Acts and Resolutions of the General Assembly of the State of South Carolina of 1985. A fire impact fee of one percent of the cost of construction of single-family residences and two percent of the cost of construction of condominiums and townhouses, high-rise buildings, and all commercial construction or in such amount as may be set forth elsewhere herein. Fire impact fees are payable to the Administrative Assistant or their designee at the headquarters station of the Murrells Inlet-Garden City Fire District and by previous agreement, on behalf of the fire district at the Georgetown County Building Department, Georgetown, South Carolina, and at the Horry County Code Enforcement Department, Conway, South Carolina. Fire impact fees collected by these departments are, by agreement, remitted by the respective county treasurers to the fire district on a regular basis.

### **4.0 The Murrells Inlet-Garden City Fire District Service Area**

As defined by statute, the Murrells Inlet-Garden City Fire District's statutory service area is those parts of Georgetown and Horry Counties within an area bounded by Huntington Beach State Park and Brookgreen Gardens to the south, the Waccamaw River and Collins Creek to the west. The north boundaries include Blackmoor on Hwy 707, Santee Cooper transmission lines on Hwy 17 Bypass, and Melody Ln. on Hwy 17 Bus. And N. Waccamaw Dr. East boundaries go to the Atlantic Ocean.

### **5.0 Definitions**

**Additional Construction:** Any expansion, upfit, or renovation made to an existing building or applicable structure as outlined herein

**Building or Applicable Structure:** Any proposed, new, or existing building, structure or system for the purpose of occupancy, storage, shelter or fire protection, portable or fixed, residential or commercial, or any permanent building, structure, or system of value that is ancillary to such building or structure except as specifically exempted by the respective county from needing a permit

**Expansion:** Modifications made to an existing building or applicable structure that increase any of its overall dimensions

**Fire Impact Fee:** A fee levied by governmental authority on all new construction in the Murrells Inlet-Garden City Fire District, as outlined in section 6.0 of this manual, to purchase and maintain firefighting equipment for the district

**Renovations:** Modifications made to an existing building or applicable structure that renew or alter its interior and/or exterior appearance with minimal structural work

**Repair-in-kind:** Work performed on an existing building or applicable structure to replace failed or damaged systems or components with similar systems or components of comparable value to those originally installed and for which a Fire Impact Fee has already been paid.

**Single-Family Residences:** Single-family residences shall be single-family, unattached dwellings located on deeded individual lots that are established for such family dwelling, and they are not constructed for commercial use or to generate recurring income.

**Commercial Structures:** Condominiums and townhomes, high-rise buildings, and all commercial construction.

**Commercial Construction:** Commercial construction means the act of building any structure, or that part of any structure, that is not a single-family residence, as defined herein, or any permanent building, applicable structure, or system of value that is ancillary to any such structure.

**System of Value:** Includes fire protection systems such as sprinklers, fire alarms, hood systems, and other like protection systems.

**Uplift:** Modifications to all or part of a partially completed building or applicable structure that are to be on a building permit subsequent to any completed building permit(s) for original construction and which will render such building or applicable structure or part thereof suitable for occupancy, storage, or shelter.

#### **6.0 Determination of Fire Impact Fees**

Fire Impact fees are collected on all new construction in the Murrells Inlet-Garden City Fire District. The term "new Construction" shall include any building or structure suitable for occupancy, storage, or shelter, portable or fixed, residential, or commercial, constructed, fabricated, or erected on or after June 6, 1985.

The fire impact fee is based on the cost of construction as declared by the owner or general contractor or as calculated by a method generally practiced and approved for use by the building official. Fire impact fees shall be collected on the cost of construction of the building or structure. Structures that are to be fabricated to a level of completion that is less than suitable for occupancy, storage, or shelter which are, for the purpose of determination of fire impact fees, deemed to be "partially completed" (e.g., an un-leased or unsold bay or unit in a mall or strip mall that is not finished upon completion of construction of the mall or strip mall and thereafter completed for the occupancy, storage, or shelter of a tenant or owner pursuant to a subsequent building permit), shall be charged a fire impact fee only upon the cost of the new construction. The cost of any uplifting that has been undertaken to render the building or structure suitable for occupancy, storage, or shelter shall cumulatively be added to the cost of the original construction of the building or structure. The total of all fire impact fees assessed and collected shall be based on the total cost of the initial construction and the cost of the new construction, with credit granted for any fire impact fee previously paid and evidenced by a written receipt for payment.

A structure hereinafter referred to as a "permanent structure of value" shall mean any porch, outbuilding, swimming pool, fire protection system, or other construction that increases the completed or assessed value of the property. Such structures are those that are of such cost or technical complexity as to require a building permit from the respective county to construct.

#### **6.1 Single-Family Residences**

Single-family residences shall be single-family, unattached dwellings located on deeded individual lots that are established for such family dwelling, and they are not constructed for commercial use or to generate recurring income. Single-family residences shall, at the time of permitting for construction, be charged a fire impact fee of 1.0 percent of the value of construction. Any permanent structure or system of value that is ancillary to any such single-family residence shall, at the time of permitting for construction, be charged a fire impact fee of 1.0 percent of the value of such construction.

#### **6.2 Commercial Structures**

Condominiums and townhomes, high-rise buildings, and all commercial construction shall, at the time of permitting for construction, be charged a fire impact fee of 2.0 percent of the value of construction. Commercial construction means the act of building any structure, or that part of any structure, that is not a single-family residence, as defined herein, or any permanent building, applicable structure, or system of value that is ancillary to any such structure.

#### **6.3 Renovations**

Any renovations or repairs, not determined to be additional construction, to a completed building that are to be done on a building permit and which, in the opinion of the building official and/or the assessor, significantly increases its assessed value shall be charged a fire impact fee of 0.2 percent of the value of construction. As an example, a new tenant plans to move into a previously occupied retail bay in a strip mall and desires to renovate the space to suit his business. A fire impact fee had been paid on the original construction, but the new finishes and fixtures in the space will affect the value of the building, so a fire impact fee of 0.2 percent is to be collected.

#### **6.4 Repairs-in-kind**

Any completed building that has been charged and has paid a fire impact fee having suffered damages due to a natural disaster or calamity may undergo repairs-in-kind on a building permit without the assessment and collection of an additional fire impact fee. Repairs-in-kind under such circumstances are not subject to the assessment and collection of an additional fire impact fee by reason of the fact that such repairs-in-kind are, or are being, undertaken for repairing a part of the building or structure of value for which a fire impact fee has previously been paid.

**6.5 Upfit of Incomplete or Uncompleted Buildings and Tenant Spaces**

Any building erected to a level of completion specified as "incomplete" or "upfit to suit tenant" in the original plans and which is approved as such by the building official may be completed on a building permit, but the fire impact fee of 2.0 percent must be collected on the scope of work, as this is not a renovation, but an upfit for completion. The space includes no interior partitions and only minimal electrical wiring, but it has been completed to a level specified in approved drawings. If the upfit work to prepare this space for a tenant is to be performed under a new building permit, then a fire impact fee of 2.0 percent is to be collected.

**6.6 Relocation of Mobile Homes and other Portable Structures**

A mobile home or other portable structure for which a fire impact fee has already been paid may be moved by the original owner to another location in the fire district without additional assessment of a fire impact fee. The owner must produce the original receipt evidencing the payment of any currently due fire impact fee for presentation to the appropriate county permitting authority at the time of application for a building permit to erect or place said mobile home or portable structure or pay the full fire impact fee.

**6.7 Replacement of Mobile Homes and Modular Homes**

If a fire impact fee has been paid for a mobile or modular home and the original owner is replacing it with another one of greater value, then the fire impact fee already paid on the old home may be applied as a credit toward the fire impact fee on the new home. These requests may be processed only at the Murrells Inlet-Garden City Fire District business office during regular business office hours. The owner must produce the original receipt evidencing the payment of any currently due fire impact fee with the balance due and will be issued a receipt for full payment for presentation to the appropriate county permitting authority at the time of application for a building permit.

**7.0 Appeals of Fire Impact Fees**

Use of this manual by Horry County Code Enforcement, Georgetown County Building Department, and Murrells Inlet-Garden City Fire District personnel ensures the fair and equitable computation and collection of fire impact fees. Because the Horry County Code Enforcement Department and the Georgetown County Building Department are collecting these fees only on behalf of the Murrells Inlet-

Garden City Fire District, any questions or disputes about fire impact fees collected at those locations shall be directed to the Administrative Assistant at the Murrells Inlet-Garden City Fire District headquarters. The Administrative Assistant, Fire Marshal, or Fire Chief, as necessary, shall make every attempt to resolve the fee in question.

Fire impact fee disputes that remain unresolved will next be referred to the Murrells Inlet-Garden City Fire District Board of Directors for resolution. The requestor will be required to appear before the Board either at a regularly scheduled meeting or a special meeting called for the purpose of the appeal, at the sole discretion of the Chairman of the Board, to present the case in person.

Any appeal of a decision regarding fire impact fees by the Board of Directors shall be made through appropriate legal action directly to the Court of Common Pleas for the Fifteenth Judicial Circuit, State of South Carolina.

**8.0 Murrells Inlet-Garden City Fire District Fire Impact Fee Rate Schedule**

Except where provided elsewhere herein, the following fire impact fees rate schedule shall apply.

**8.1 Single-Family Residences**

Single-family residences and their ancillary structures built or upfit shall be charged a fire impact fee of 1.0 percent of the cost of construction.

**8.2 Commercial Structures**

Condominiums and townhomes, high-rise buildings, and all commercial construction and their ancillary structures shall, at the time of permitting for construction, be charged a fire impact fee of 2.0 percent of the value of construction.

**8.3 Interior and Exterior Renovations**

Interior and exterior renovation made to existing buildings and ancillary structures in all occupancies shall be charged a fire impact fee of 0.2 percent of the cost of construction.